

Web Service Development  
Oracle FLEXCUBE Investor Servicing  
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# 1. Preface

This document describes the concepts and helps reader to develop Web service for FLEXCUBE IS function IDs. Web Services developed for FLEXCUBE IS are deployed on Gateway framework.

## 1.1 Audience

This Web service Development book is intended for FLEXCUBE Application Developers/Users who perform the following tasks:

- Develop the new web service for existing FLEXCUBE Function IDs
- Modify the existing web service to add/remove fields

## 1.2 Related documents

For more information on FLEXCUBE framework, refer the below documents:

- Development Overview Guide
- Getting Started
- FCUBS-FD05-04-01-TrAX-Reference

To Use this manual, you need conceptual and working knowledge of the below:

| Proficiency                                              | Resources                  |
|----------------------------------------------------------|----------------------------|
| FLEXCUBE IS Development overview                         | Development Overview Guide |
| OPEN DEVELOPMENT function ID development getting started | Getting Started            |
| Open Development screen development                      | Function ID Development    |

## 1.3 Conventions

The following text conventions are used in this document:

### Convention Meaning

|                 |                                                                                                                                                                   |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>boldface</b> | Boldface type indicates graphical user interface elements (for example, menus and menu items, buttons, tabs, dialog controls), including options that you select. |
| <i>italic</i>   | italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.                                                     |
| monospace       | Monospace type indicates language and syntax elements, directory                                                                                                  |

|                                                                                   |                                                                               |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
|                                                                                   | and File name, URLs, text that appears on the screen, or text that you enter. |
|  | Indicates important information                                               |

## 1.4 **Hypothetical Example used in the document**

FLEXCUBE IS has the function ID JKDMOBILE. This is a maintenance function ID. This function ID is used map the customer number with mobile number. This document covers the web service development for this function ID.

---

## 2. Introduction

### 2.1 How to use this Guide

The information in this guide includes:

- [Chapter 2, “Introduction”](#)  
This is an introduction section.
- [Chapter 3, “Web Service - Introduction”](#)  
This section discuss the Web service introduction and FLEXCUBE IS web service concepts
- [Chapter 4, “Pre requisites for Web service development”](#)  
This section discuss the pre-request check list for web service development
- [Chapter 5, “Web services Development”](#)  
This section discusses steps for web service development and testing.
- [Chapter 6, “Annexure A – FCMobileService sample files”](#)  
This section discuss the sample files

---

## 3. Web Service - Introduction

Web Services are self-contained, self-describing, modular applications that can be published, located and invoked across the web. A Web Service is an interface that describes a collection of operations that are network accessible through standardized XML messaging. The technology is called “Web service” because it integrates services(applications) using web technologies(the internet and its standards). Web service plays vital role in creating Service Oriented Architecture based software applications.

Web services use the following technologies

- XML  
XML is used to describe the web service specifications
- SOAP  
Simple Object Access Protocol is a network, transport, and programming language, platform independent protocol that allows client to call a remote service. The message format is XML
- WSDL  
Web Service Description Language is an XML based interface and implementation description language The service provider uses WSDL document in order to specify the operations of web service and parameters and data types of these operations

### 3.1 Components of web service

Following are the components of FLEXCUBE IS Web service:

- XSD files
  - Message XSDs  
This represents the “Message” portion on WSDL file that used to define the message communicated in web service. A message can have one or more data types.
  - Type XSDs  
This represents the “Types” portion on WSDL file that used to define the data types that are part of messages.
- WSDL file
- Implementation Java files
- Gateway static data

**Example:**

JKDMOBILE function ID – web service development results in following files. Refer the annexure A for these file contents

- XSD files
  - CS-Mobil-Types.xsd
  - CS-CreateMobil-Req-Full-MSG.xsd
  - CS-CreateMobil-Req-IO-MSG.xsd
  - CS-CreateMobil-Res-Full-MSG.xsd
  - CS-CreateMobil-Res-PK-MSG.xsd
- WSDL file
  - FCMobileService.wsdl
- Implementation Java files
  - FCMobileServiceImpl.java
- Gateway static data
  - GWTB\_AMEND\_FIELDS\_\_JKDMOBIL.INC
  - GWTB\_AMEND\_NODES\_\_JKDMOBIL.INC
  - GWTM\_AMEND\_FIELDS\_\_JKDMOBIL.INC
  - GWTM\_AMEND\_MASTER\_\_JKDMOBIL.INC
  - GWTM\_AMEND\_NODES\_\_JKDMOBIL.INC

## 3.2 **FLEXCUBE SOAP format**

FLEXCUBE IS uses the following SOAP format

| SOAP component | FCUBS component                       | Example               |
|----------------|---------------------------------------|-----------------------|
| SOAP Envelope  | OPERATION.FUNCTIONID_PATTERN_REQ/RESP | CREATEMOBILE_FSFS_REQ |
| SOAP Header    | <FCUBS_HEADER>                        | <FCUBS_HEADER>        |
| SOAP Body      | <FCUBS_BODY>                          | <FCUBS_BODY>          |

### **Example:**

```
<CREATEMOBILE_FSFS_REQ xmlns="http://fcubs.ofss.com/service/FCMobileService">

  <FCUBS_HEADER>

    <SOURCE>FLEXCUBE </SOURCE>

    <UBSCOMP>FCUBS</UBSCOMP>

    <MSGID></MSGID>

    <CORRELID></CORRELID>

    <USERID>PIYUSHB</USERID>

    <BRANCH>000</BRANCH>

    <MODULEID>CS</MODULEID>

    <SERVICE>FCMobileService</SERVICE>
```

```

<OPERATION>CreateMobile</OPERATION>

<SOURCE_OPERATION></SOURCE_OPERATION>

<SOURCE_USERID></SOURCE_USERID>

<!--Optional:-->

<DESTINATION></DESTINATION>

<!--Optional:-->

<MULTITRIPID></MULTITRIPID>

<!--Optional:-->

<FUNCTIONID></FUNCTIONID>

<!--Optional:-->

<ACTION></ACTION>

<!--Optional:-->

<MSGSTAT>SUCCESS</MSGSTAT>

<!--Optional:-->

<ADDL>

    <!--Zero or more repetitions:-->

    <PARAM>

        <NAME>abc</NAME>

        <VALUE>123</VALUE>

    </PARAM>

</ADDL>

</FCUBS_HEADER>

<FCUBS_BODY>

<Jktm-Junk-Mobile-Full>

    <CUSTOMER_NO>000000001</CUSTOMER_NO>

    <CELL_NO>1234567890</CELL_NO>

    <!--Optional:-->

    <MAKER></MAKER>

    <!--Optional:-->

    <MAKERSTAMP></MAKERSTAMP>

```

```

<!--Optional:-->

<CHECKER></CHECKER>

<!--Optional:-->

<CHECKERSTAMP></CHECKERSTAMP>

<!--Optional:-->

<MODNO></MODNO>

<!--Optional:-->

<TXNSTAT></TXNSTAT>

<!--Optional:-->

<AUTHSTAT></AUTHSTAT>

<!--Zero or more repetitions:-->

<Jktm-Junk-Mobil-Dtl>

    <CUSTOMER_NO>010101</CUSTOMER_NO>

    <!--Optional:-->

    <ACCOUNT_NO></ACCOUNT_NO>

    <!--Optional:-->

    <NAME></NAME>

    <!--Optional:-->

    <TXNDETL></TXNDETL>

    <!--Optional:-->

    <STATUS></STATUS>

    <!--Optional:-->

    <CELL_NO></CELL_NO>

</Jktm-Junk-Mobil-Dtl>

<!--Optional:-->

<Jktm-Junk-Mobile-Dtl2>

    <CUSTOMER_NO></CUSTOMER_NO>

    <!--Optional:-->

    <CUSTOMER_NAME></CUSTOMER_NAME>

    <!--Optional:-->

```

```

<CUSTOMER_CATEGORY></CUSTOMER_CATEGORY>

<!--Optional:-->

<ADDRESS></ADDRESS>

<!--Optional:-->

<CITY></CITY>

<!--Optional:-->

<COUNTRY></COUNTRY>

</Jktm-Junk-Mobile-Dtl2>

</Jktm-Junk-Mobile-Full>

</FCUBS_BODY>

</CREATEMOBILE_FSFS_REQ>

```



In FCUBS BODY, the data blocks are referred as nodes. Example, *Jktm-Junk-Mobile-Full* in above XML represents the data block that sources from *JKTM\_JUNK\_MOBILE\_FULL* table. Replace “-”(hyphen) with “\_”(underscore) to get the table name and data block.

### 3.3 **FLEXCUBE WSDL format**

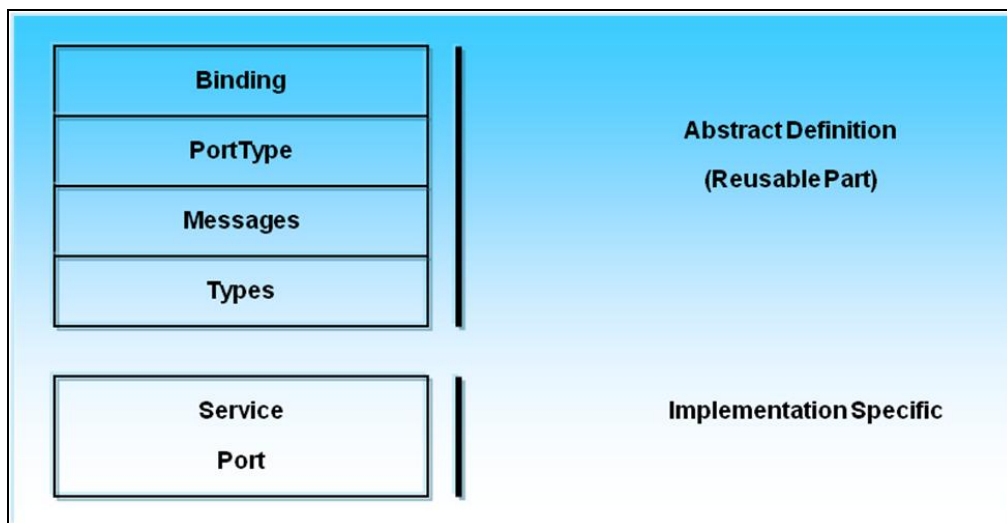
FLEXCUBE has the concept of Function ID that has multiple actions. This is translated to Web service pattern as below:

FUNCTION ID + ACTIONS = WEB SERVICE + OPERATIONS

#### **Example**

JKDMOBILE + NEW = FCMobileService + CreateMobile

#### 3.3.1 **WSDL parts**



### 3.3.2 FCUBS WSDL example

```
<?xml version= "1.0" encoding="UTF-8"?>

<wsdl:definitions name="FCMobileService"

targetNamespace = "http://types.ws.gw.fcubs.ofss.com"

xmlns:tns = "http://types.ws.gw.fcubs.ofss.com"

xmlns:wsdlsoap = "http://schemas.xmlsoap.org/wsdl/soap/"

xmlns:wsdl = "http://schemas.xmlsoap.org/wsdl/"

xmlns:xs = "http://www.w3.org/2001/XMLSchema"

xmlns="http://schemas.xmlsoap.org/wsdl/"

xmlns:ns="http://fcubs.ofss.com/service/FCMobileService">

<wsdl:types>

  <xs:schema>

    <xs:import namespace="http://fcubs.ofss.com/service/FCMobileService"

      schemaLocation="../../../XSD/CS-CreateMobil-Req-Full-MSG.xsd"/>

  </xs:schema>

  <xs:schema>

    <xs:import namespace="http://fcubs.ofss.com/service/FCMobileService"

      schemaLocation="../../../XSD/CS-CreateMobil-Res-Full-MSG.xsd"/>

  </xs:schema>

  <xs:schema>

    <xs:import namespace="http://fcubs.ofss.com/service/FCMobileService"

      schemaLocation="../../../XSD/CS-CreateMobil-Req-IO-MSG.xsd"/>

  </xs:schema>

  <xs:schema>

    <xs:import namespace="http://fcubs.ofss.com/service/FCMobileService"

      schemaLocation="../../../XSD/CS-CreateMobil-Res-PK-MSG.xsd"/>

  </xs:schema>

</wsdl:types>
```

```

<wsdl:message name="CreateMobileFSReq">
    <wsdl:part name="RequestMsg" element="ns:CREATEMOBILE_FSFS_REQ"/>
</wsdl:message>

<wsdl:message name="CreateMobileFSRes">
    <wsdl:part name="ResponseMsg" element="ns:CREATEMOBILE_FSFS_RES"/>
</wsdl:message>

<wsdl:message name="CreateMobileIOReq">
    <wsdl:part name="RequestMsg" element="ns:CREATEMOBILE_IOPK_REQ"/>
</wsdl:message>

<wsdl:message name="CreateMobilePKRes">
    <wsdl:part name="ResponseMsg" element="ns:CREATEMOBILE_IOPK_RES"/>
</wsdl:message>

<wsdl:portType name="FCMobileServiceSEI" >
    <wsdl:operation name="CreateMobileIO">
        <wsdl:input message="tns:CreateMobileIOReq"/>
        <wsdl:output message="tns:CreateMobilePKRes"/>
    </wsdl:operation>

    <wsdl:operation name="CreateMobileFS">
        <wsdl:input message="tns:CreateMobileFSReq"/>
        <wsdl:output message="tns:CreateMobileFSRes"/>
    </wsdl:operation>

</wsdl:portType>

```

```

<wsdl:binding name="FCMobileService" type="tns:FCMobileServiceSEI">

  <wsdlsoap:binding style="document"
transport="http://schemas.xmlsoap.org/soap/http"/>

  <wsdl:operation name="CreateMobileFS">

    <wsdlsoap:operation soapAction=""/>

    <wsdl:input>

      <wsdlsoap:body use="literal"/>

    </wsdl:input>

    <wsdl:output>

      <wsdlsoap:body use="literal"/>

    </wsdl:output>

  </wsdl:operation>

  <wsdl:operation name="CreateMobileIO">

    <wsdlsoap:operation soapAction=""/>

    <wsdl:input>

      <wsdlsoap:body use="literal"/>

    </wsdl:input>

    <wsdl:output>

      <wsdlsoap:body use="literal"/>

    </wsdl:output>

  </wsdl:operation>

</wsdl:binding>

  <wsdl:service name="FCMobileService">

    <wsdl:port name="FCMobileServiceSEI" binding="tns:FCMobileService">

      <wsdlsoap:address
location="http://localhost:9080/FCMobileService/services/FCMobileService"/>

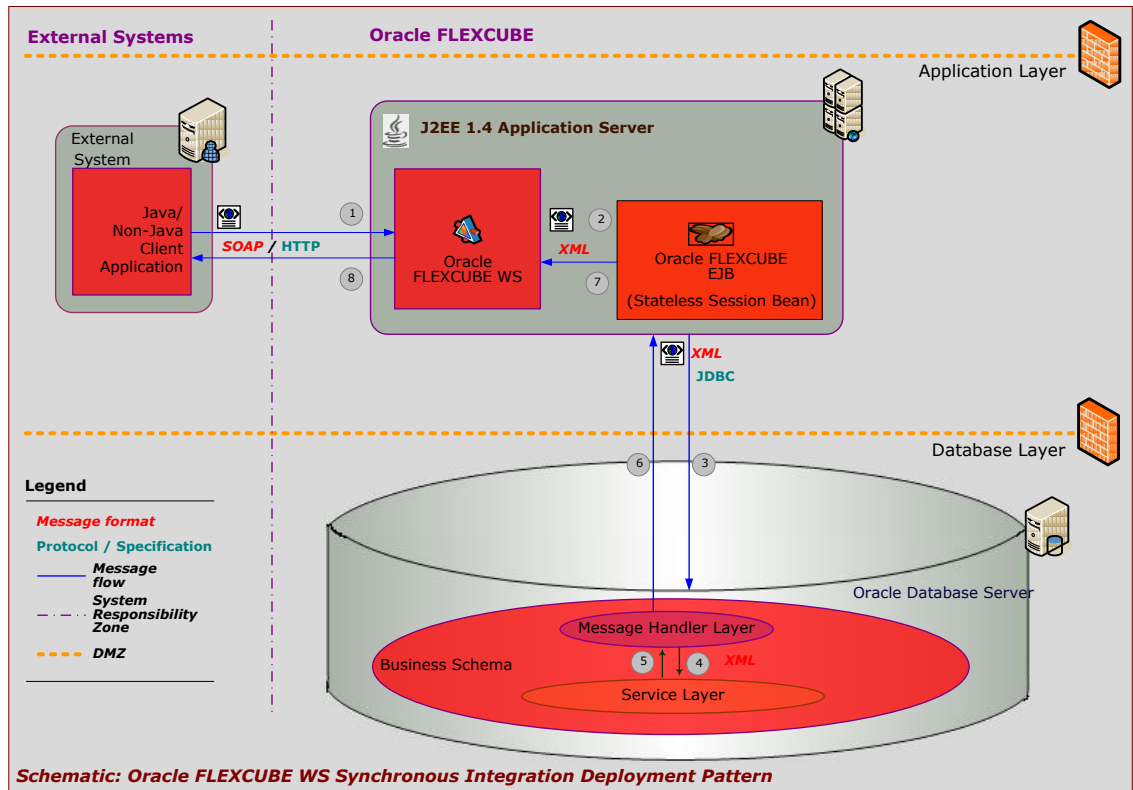
    </wsdl:port>

  </wsdl:service></wsdl:definitions>

```

### 3.4 FLEXCUBE Web Service data flow

The below diagram explains the web service message flow in FLEXCUBE IS.



1. Consumer sends web service request as per the WSDL definition implemented.
2. FLEXCUBE IS Gateway(that deploys the FLEXCUBE IS Web service) received the request and forwards the request to FLEXCUBE IS EJB
3. FLEXCUBE EJB forwards the request to Database Message handler using JDBC protocol
4. Message handler identifies the Service and calls corresponding operation handler for processing
5. The response message is sent back to Message handler
6. Message handler forward the response message back to FCUBS EJB
7. FCUBS EJB sends the response back to FLEXCUBE Gateway web service
8. FLEXCUBE Gateway web service responds to the Consumer.



Every FLEXCUBE IS Web service developed; need to be deployed on FLEXCUBE IS Gateway framework. Refer the FLEXCUBE Gateway deployment patterns for more information.

---

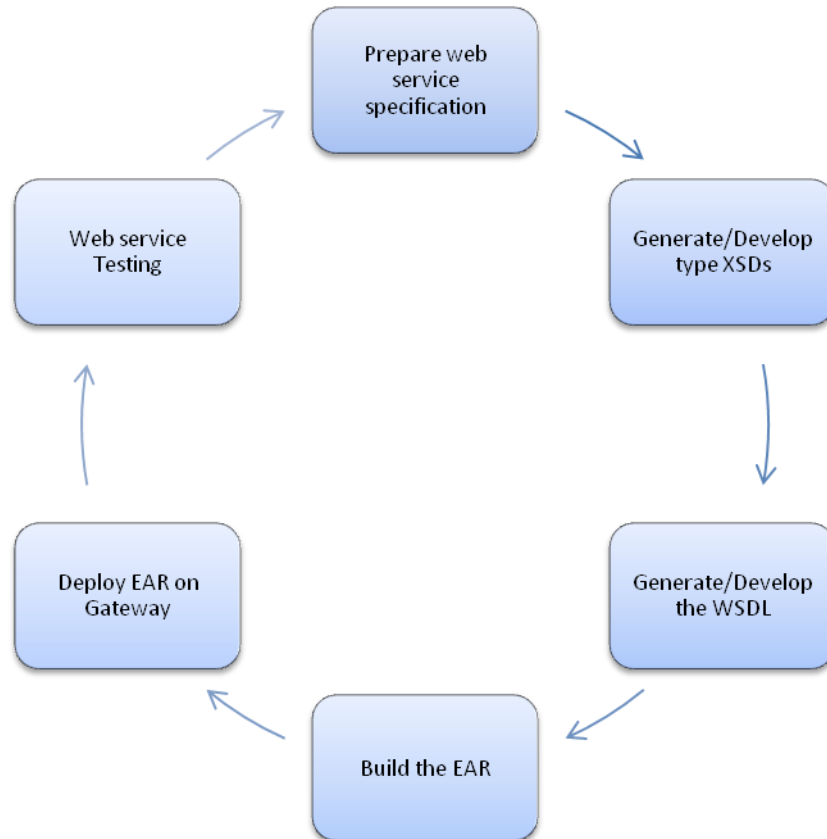
## 4. Pre requisites for Web service development

- Web service development Specification (explained in further sections)
- OPEN DEVELOPMENT tool -to generate the type XSDs and Gateway static data
- Target FLEXCUBE IS environment with Gateway framework implemented.
- TrAX tool ( to generate the WSDL and Java Implementation files)

---

## 5. Web service Development

The below diagram represents the web service development cycle



### 5.1 Web Service specification

| Specification                                                                                                                                                                                                                                                | Example Data    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| What is the function ID web service required?                                                                                                                                                                                                                | JKDMOBILE       |
| What is the action of the function ID web service required?                                                                                                                                                                                                  | NEW             |
| What is the Web service name?                                                                                                                                                                                                                                | FCMobileService |
| What is the operation name?                                                                                                                                                                                                                                  | CreateMobile    |
| Open Development generated XSD available in the xsd folder, specified at Open Development?(Yes/No)<br><i>XSD files generated for the screen should be available for maintenance function IDs. For online function IDs, these type XSDs may be hand coded</i> | Yes             |
| Created a Web Service and operation using TrAX tool?                                                                                                                                                                                                         | Yes             |

| Specification                                                                                                                                                                                                   | Example Data |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <i>Specify the name of the service and operation created for a function id, to be used in FLEXCUBE</i>                                                                                                          |              |
| <b>WSDL, Config file created using TrAX tool? (Yes/No)</b><br><i>WSDL files are needed to create a service, this contains the information for the service being created for a function id (using the XSD's)</i> | Yes          |
| <b>Property and EAR file generated from the installer? (Yes/No)</b><br><i>The property and EAR file are created using installer. Location for these files is specified during creation.</i>                     | Yes          |

## 5.2 Generate / Develop XSDs

There are two ways to develop XSDs

- Use Open Development Tool
- Manually create XSD and maintain Gateway static data

### 5.2.1 Open Development generated

As a part of Function ID development, Open Development is used to generate the following web service artifacts:

- XSD folder with type XSDs
- INC folder that has following Gateway static data needed at runtime for web service.
  - GWTB\_AMEND\_FIELDS\_\_JKDMOBIL.INC
  - GWTB\_AMEND\_NODES\_\_JKDMOBIL.INC
  - GWTM\_AMEND\_FIELDS\_\_JKDMOBIL.INC
  - GWTM\_AMEND\_MASTER\_\_JKDMOBIL.INC
  - GWTM\_AMEND\_NODES\_\_JKDMOBIL.INC

*Refer Open Development documents for steps to get type XSDs and following INC files to populate Gateway maintenance tables.*

### 5.2.2 Hand coded

If Open Development is not used for XSDs generation, these XSDs need to be created manually using existing samples available.

*Developer expected to have proficiency in understanding complete FLEXCUBE IS web service framework and patterns to hand code the XSDs. Refer Section 6 for sample files. User can also refer existing contract online web service files for reference/samples.*

If Open Development is not used, the Gateway static data need to maintain manually as follows:

1. Make the entry in GWTM\_OPERATIONS\_MASTER for every operation code for a given web service.

**Example:**

|                       |                                    |
|-----------------------|------------------------------------|
| <b>SERVICE_NAME</b>   | <b>FCUBSCustomerService</b>        |
| OPERATION_CODE        | ModifyMobile                       |
| SERVICE_DESC          | Customer Service                   |
| OPERATION_DESCRIPTION | Modification of Mobile Number      |
| MODULE_CODE           | ST                                 |
| REPLY_REQD            | N                                  |
| FC_FUNCTION_ID        | STDCIF                             |
| FC_ACTION             | MODIFY                             |
| DEFAULT_FUNCTION      | Y                                  |
| SMS_FUNCTION_ID       | STGCIF                             |
| SMS_ACTION            | UNLOCK                             |
| FS_REQ_XSD            | ST- ModifyMobile -Req-Full-MSG.xsd |
| PK_RES_XSD            | ST- ModifyMobile -Res-PK-MSG.xsd   |
| FS_RES_XSD            | ST- ModifyMobile -Res-Full-MSG.xsd |
| IO_REQ_XSD            | ST- ModifyMobile -Req-IO-MSG.xsd   |

2. Make the entry in GWTM\_GATEWAY\_FUNCTIONS

| <b>SERVICE_NAME</b>  | <b>OPERATION_CODE</b> | <b>FUNCTION_ID</b> | <b>ACTION</b> |
|----------------------|-----------------------|--------------------|---------------|
| FCUBSCustomerService | ModifyMobile          | STGCIF             | UNLOCK        |

3. Maintain external system details using function id GWDEXSYS

**Example: STMOB**

**External System - Detailed**

**External System**  
External System \* STMOB  
Description External system for Mobile Update

**Correlation Pattern**  
Request Message ID

**Message Exchange Pattern**  
Request Message Input Only  
Response Message Full Screen

**Queue**  
Default Response Queue  
Dead Letter Queue

☐ XSD Validation Required ☐ Register Response Queue Message Id

**External System Queues \***

| In Queue * | Response Queue |
|------------|----------------|
| IN         |                |

**Fields** **FTP Parameters**

Input By SAN1 Date Time 2007-12-31 18:27:48 Modification Number 1 ☐ Authorized  
Authorized By Date Time ☒ Open **Exit**

4. Maintain external system function using function id GWDEXFUN

**External System Functions - Detailed**

External System \* STMOB  
Function \* STGCIF  
Action \* UNLOCK  
Service Name FCUBSCustomerService  
Operation Code ModifyCustomer

Description External system for Mobile Update

**Fields**

Input By SAN1 Date Time 2007-12-31 18:47:00 Modification Number 1 ☐ Authorized  
Authorized By Date Time ☒ Open **Exit**

5. Make the entry in GWTB\_AMEND\_NODES for new operation code

| NODE_NAME      | STTMS_CUST_PERSONAL |
|----------------|---------------------|
| NEW_ALLOWED    | N                   |
| DELETE_ALLOWED | N                   |

|                  |                            |
|------------------|----------------------------|
| <b>NODE_NAME</b> | <b>STTMS_CUST_PERSONAL</b> |
| ALL_RECORDS      | Y                          |
| SERVICE_NAME     | FCUBSCustomerService       |
| OPERATION_CODE   | ModifyMobile               |

6. Make the entry in GWTB\_AMEND\_FIELDS for new operation code

|                  |                            |
|------------------|----------------------------|
| <b>NODE_NAME</b> | <b>STTMS_CUST_PERSONAL</b> |
| FIELD_NAME       | MOBILE_NUMBER              |
| SERVICE_NAME     | FCUBSCustomerService       |
| OPERATION_CODE   | ModifyMobile               |

7. Make Mobile number fields as Amendable for External system using function id STDAMDMT

Amendment Maintenance - Detailed

External System \* STMOB  
 Operation \* ModifyMobile  
 Service Name FCUBSCustomerService  
 Operation Code ModifyMobile

| Amend Nodes                                  |                                     |                                     |                                     |
|----------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> NodeName *          | New Allowed                         | Deleted Allowed                     | All Records                         |
| <input type="checkbox"/> STTMS_CUST_PERSONAL | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Amend Fields                           |  |
|----------------------------------------|--|
| <input type="checkbox"/> Field Name *  |  |
| <input type="checkbox"/> MOBILE_NUMBER |  |

Fields

Input By ABH1      Date Time 2007-12-31 15:16:09      Modification Number 1      ☒ Authorized  
 Authorized By ABH2      Date Time 2007-12-31 15:17:36      ☒ Open      **Exit**

8. Maintain external Source using function id CODSORCE

Source Code \* STM0B

Description External Source for Mobile

☐ Base Data From Flexcube

Fields

|                    |                               |                       |                                                |      |
|--------------------|-------------------------------|-----------------------|------------------------------------------------|------|
| Input By ABH2      | Date Time 2007-12-31 19:41:11 | Modification Number 1 | <input checked="" type="checkbox"/> Authorized | Exit |
| Authorized By ABH1 | Date Time 2008-03-31 19:42:09 |                       | <input checked="" type="checkbox"/> Open       |      |

9. Maintain external Source parameters preference using function id CODUPLDM

Source Code \* STM0B

Module Code \* ST

Error Handling

On Override \* Ignore

On Exception \* Reject

Post Upload

Status \* Authorized

Purge Days(Calender)

☐ Allow Deferred Processing

☐ Allow EOD with Deferred

☒ Allow Delete

Fields

|                           |                               |                       |                                                |      |
|---------------------------|-------------------------------|-----------------------|------------------------------------------------|------|
| Input By OFSSPAYMAK6      | Date Time 2008-03-31 14:59:36 | Modification Number 1 | <input checked="" type="checkbox"/> Authorized | Exit |
| Authorized By OFSSPAYMAK6 | Date Time 2007-12-31 15:12:43 |                       | <input checked="" type="checkbox"/> Open       |      |

## 5.3 Generate/Develop WSDL

Having type and Message XSDs, WSDL file development can be done in two ways:

- Using TrAX tool

Refer the document FCUBS-FD05-04-01-TrAX-Reference for more information

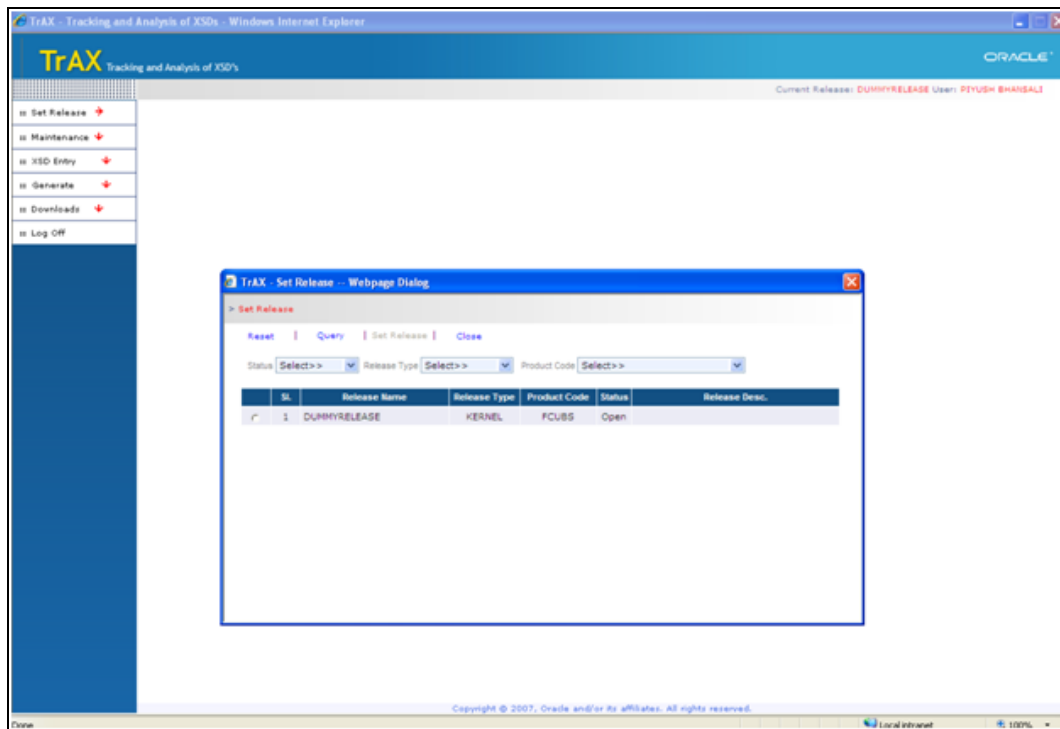
- Hand coding

Developer expected to have proficiency in understanding complete FLEXCUBE IS web service framework and patterns to hand code the WSDL file. Refer annexure A for sample files. User can also refer existing contract online web service files for reference/samples.

### 5.3.1 Generate WSDL using TrAX

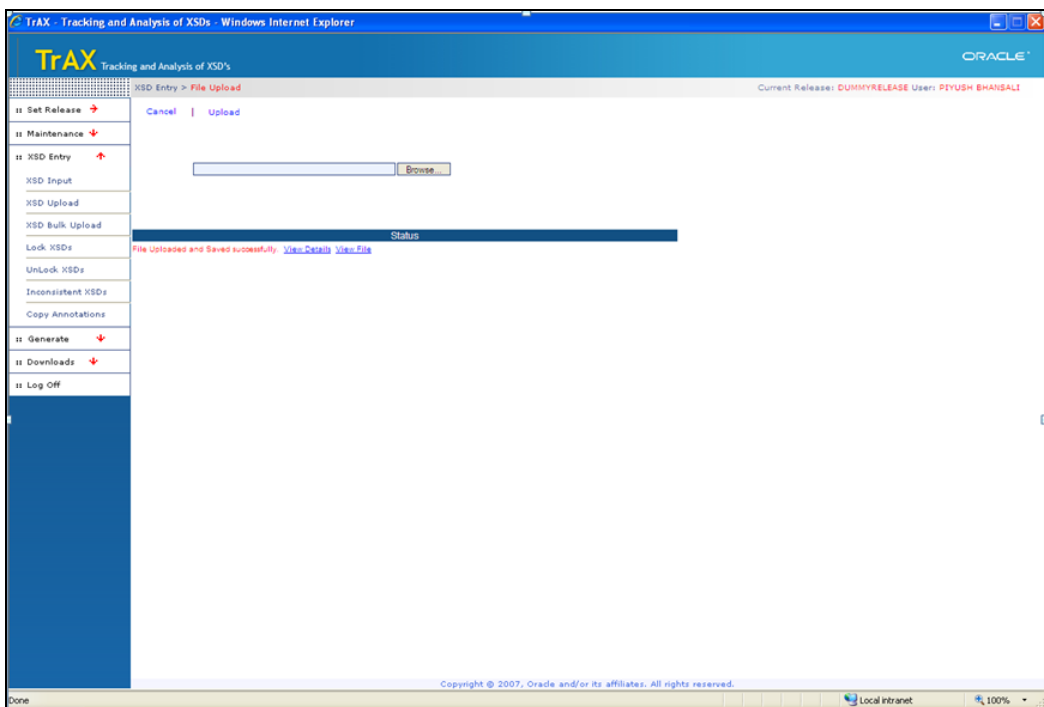
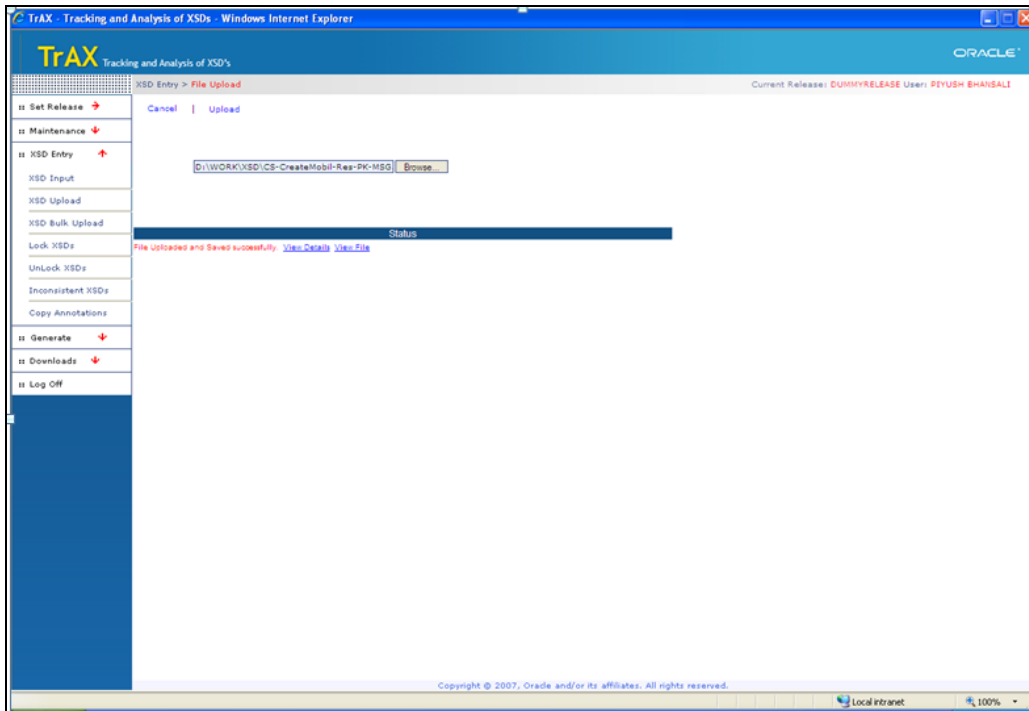
TrAX tool used for the creation of new module,service,operation and generation of WSDL files, which is used in deployment for WebServices

- Step – 1 - Set Release



- Step 2 - Upload XSD's:

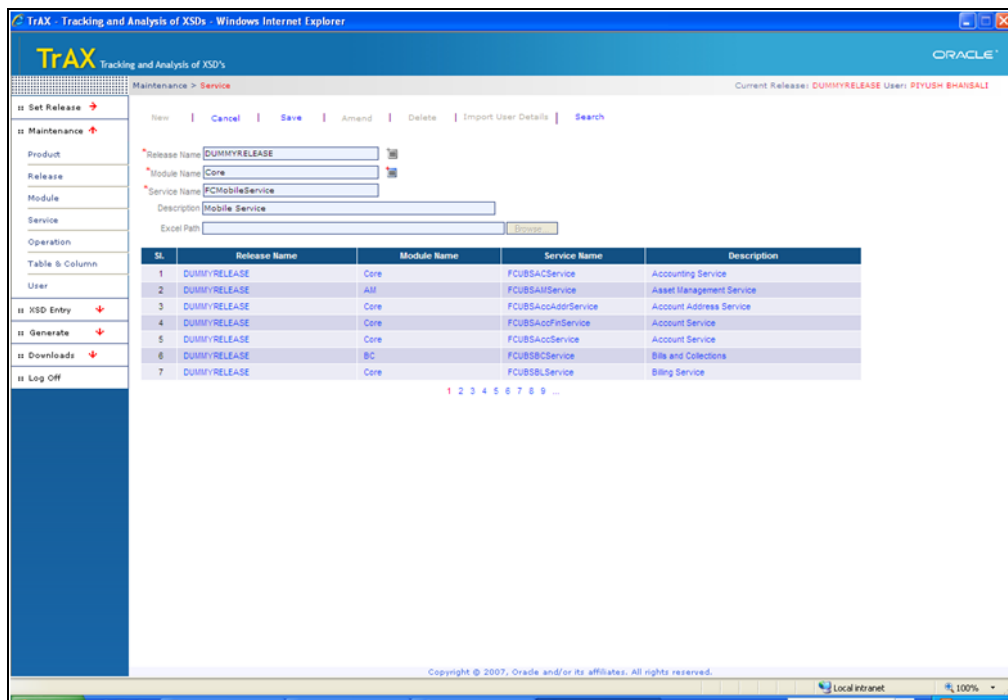
The XSD's generated from the Open Development are uploaded in the TrAX tool so that it can be used to develop a new service.



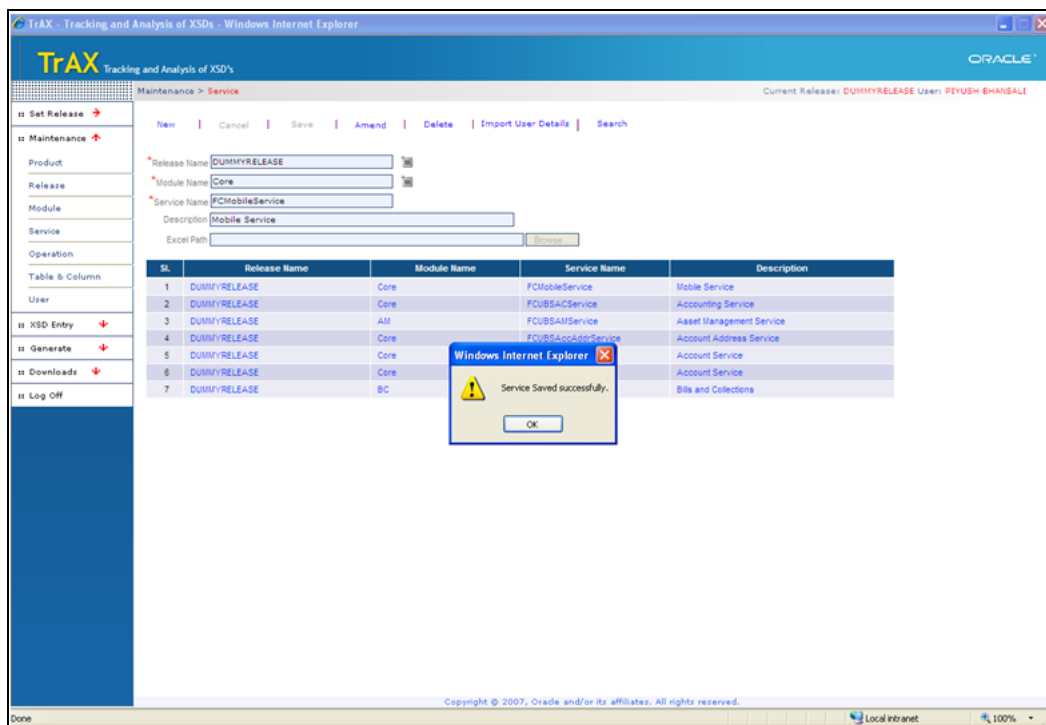
- Step 3 - Creation of Service

For creation of new services, under Maintenance → Service → New

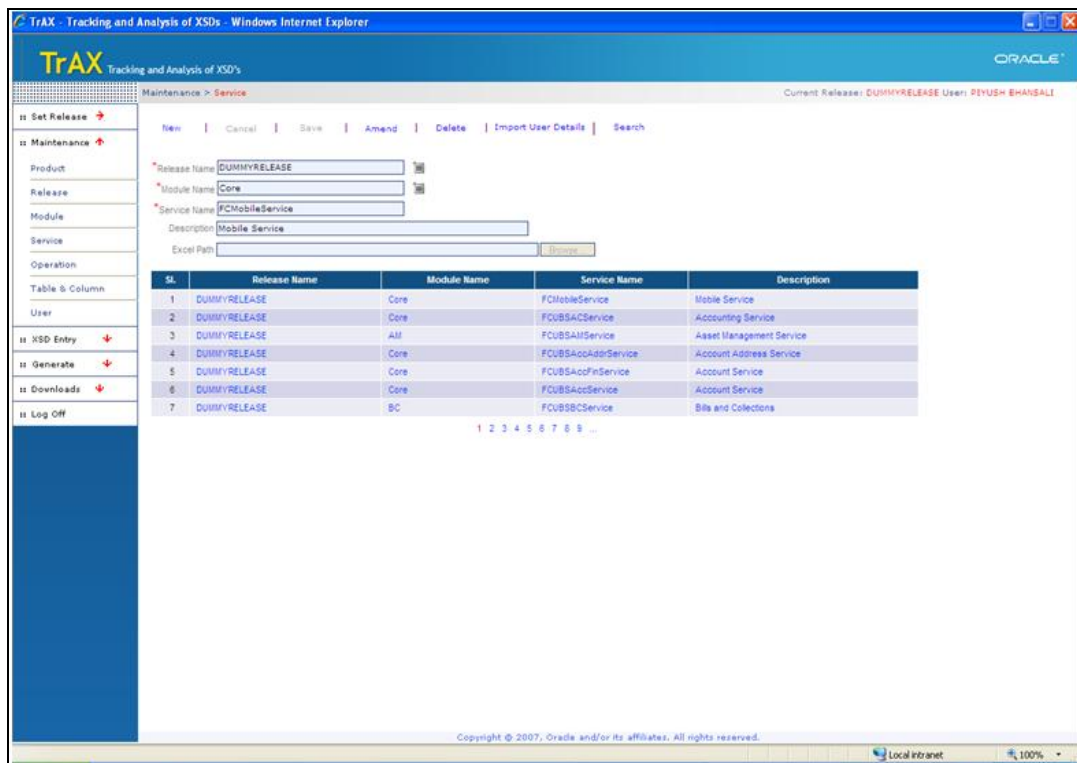
- Release name will be the release of FLEXCUBE for which the Service is created.
- Module name will contain the module for which the service is enabled.
- Service name is the WSDL name given to the web service created.
- Description has the details for which the service is created.



After successful creation of Service, it displays the message “Service Saved Successfully”.



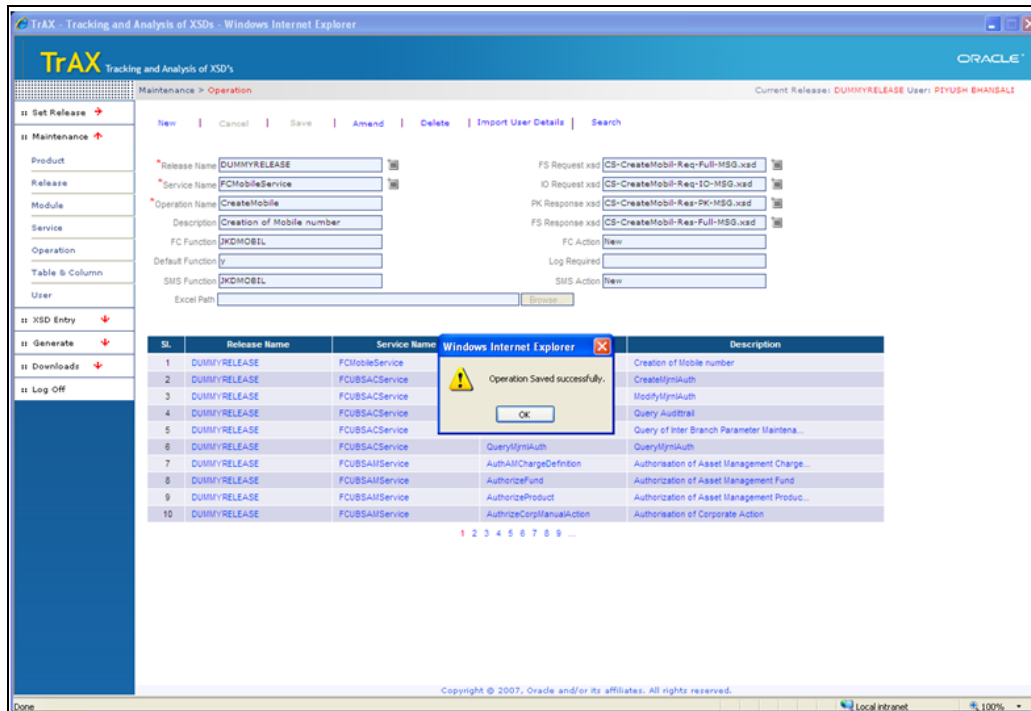
The new service name can be checked in the list after successful creation.



- Step 4 -Creation of Operation

To create a new operation, under Maintenance → Operation. Click New.

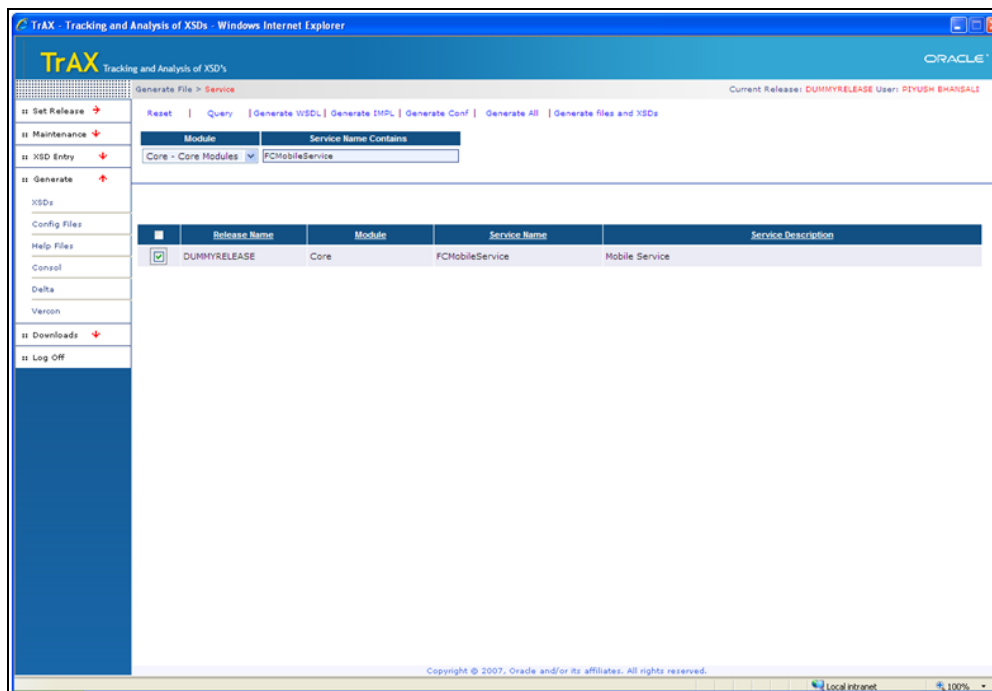
- Operation name is the name given to the Operation created.
- Description has the details for which the Operation is created.
- FS request XSD is the full request message XSD file generated from Open Development tool for a function id.
- IO request XSD is the Input/output request message XSD file generated from Open Development tool for a function id.
- PK response XSD is the Primary Key response message XSD file generated from Open Development tool for a function id.
- FS response XSD is the full response message XSD file generated from Open Development tool for a function id.
- FC Action refers to the FLEXCUBE action available for the Operation. Here it is New.



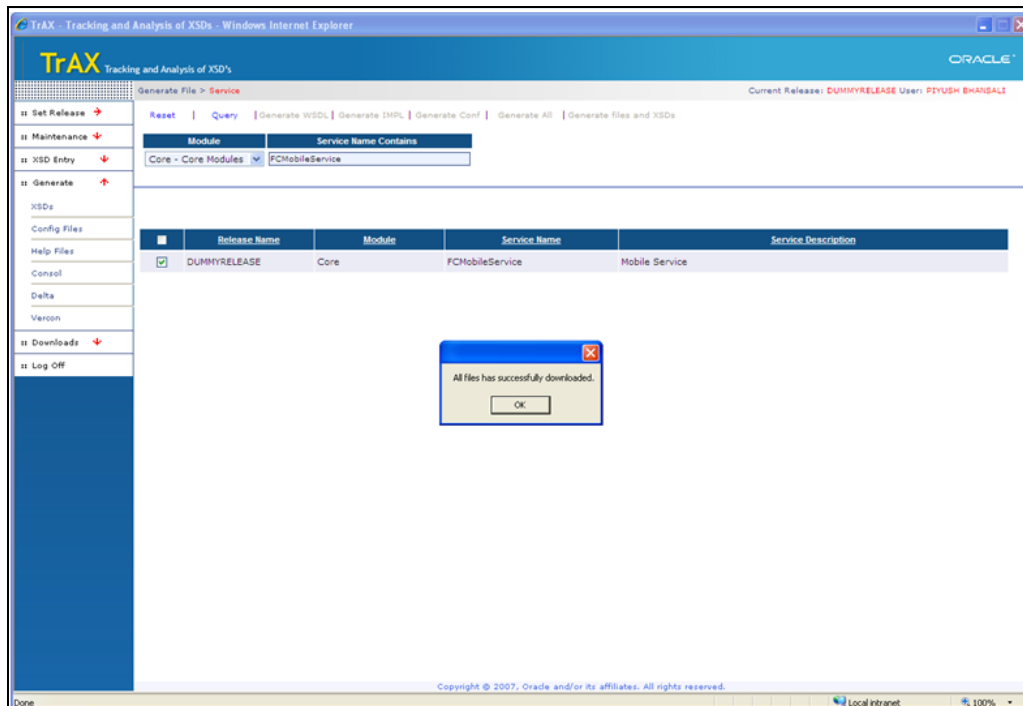
- Step 5 - Generation of WSDL files

Select Generate → Config files

- Click on Query, Enter the Module Name and Service name for which the WSDL is to be generated.
- After checking the Release, module and service name, Options are enabled.
- Click on Generate All to get WSDL, IMPL, CONF files. It will ask for the location where all these files will be generated



- Ensure the message “All Files has successfully downloaded”
- Go to the location mentioned and check the WSDL file generation. In this example, the file name is “FCMobileService.wsdl”

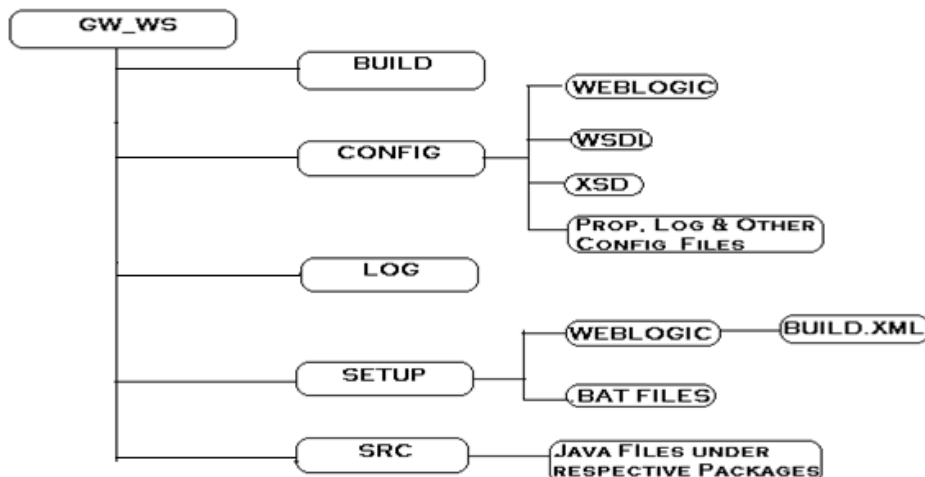


## 5.4 Build EAR

This section explains how to build EAR file using XSDs and WSDL created

### 5.4.1 Directory Creation

- Identify & Copy GW\_WS.zip into your local machine. Unzip the file  
*This file contains factory shipped directory structure and pre-configured properties file for Gateway framework.*
- The following folder structure can be seen after unzip.



### 5.4.2 File Copy

- Copy the WSDL generated into **GW\_WS\CONFIG\WSDL** folder.
- Copy all the relevant XSD's into **GW\_WS \CONFIG\XSD** folder.
- Copy the Java Implementation file into **GW\_WS \src\com\lofssl\cubs\gw\ws** folder

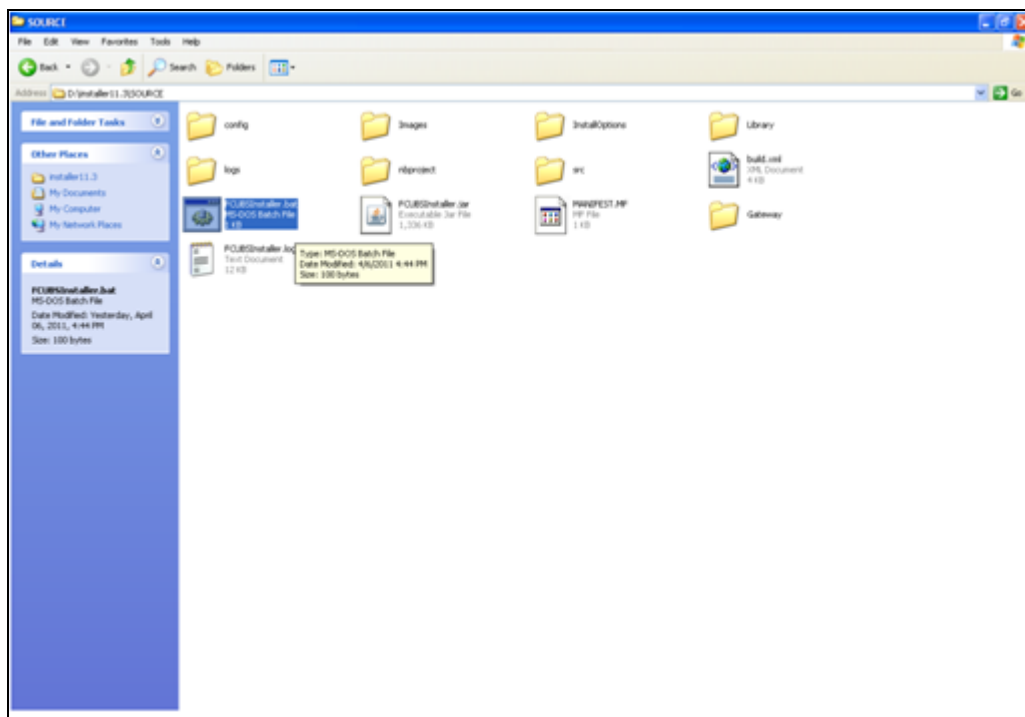
### 5.4.3 Creation of Gateway EJB property file

This section describes the steps to create Gateway EJB property file.

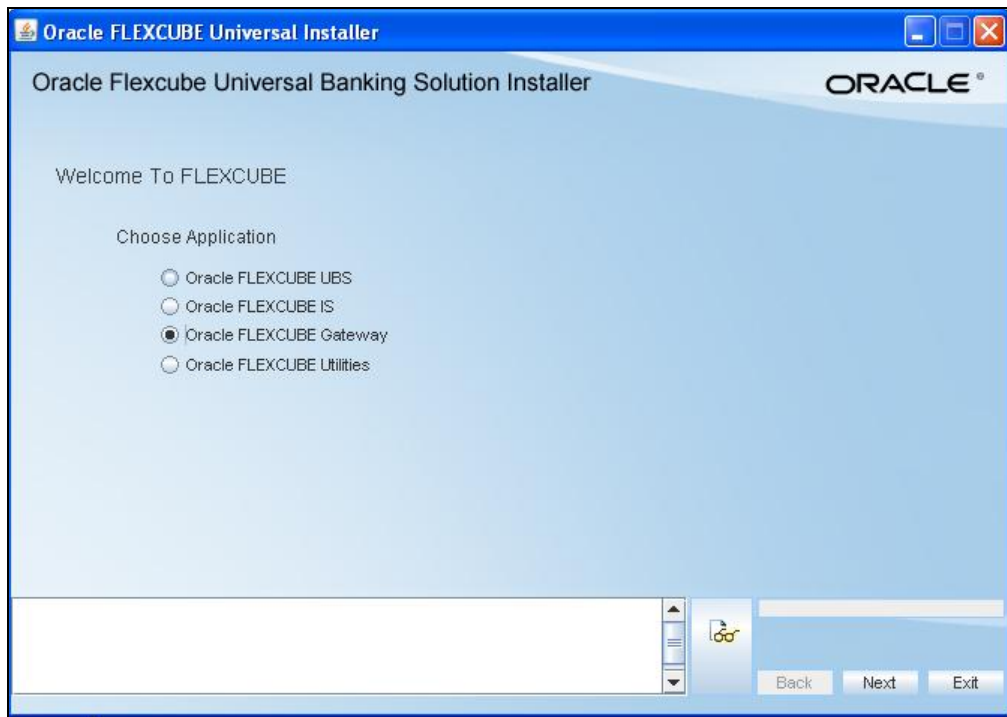


 Skip this section(steps 1 to 4) if Gateway EJB is already deployed in Target FLEXCUBE IS environment.

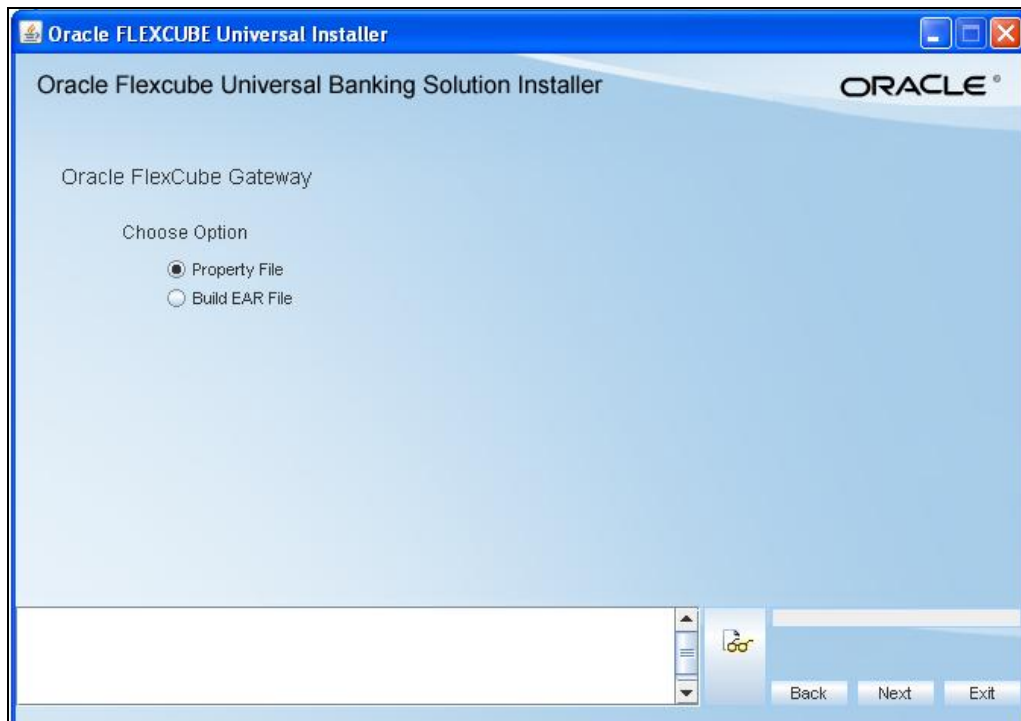
- Step 1 – Copy installer source to your local windows machine and run the FCUBSInstaller



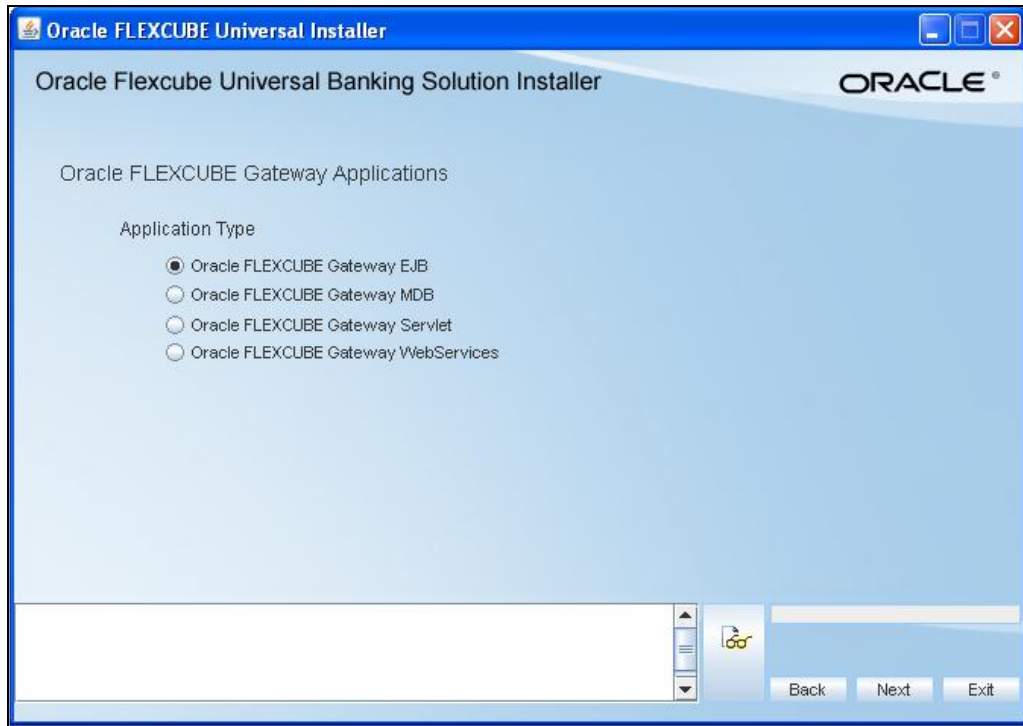
- Step 2 – Select Oracle FLEXCUBE Gateway



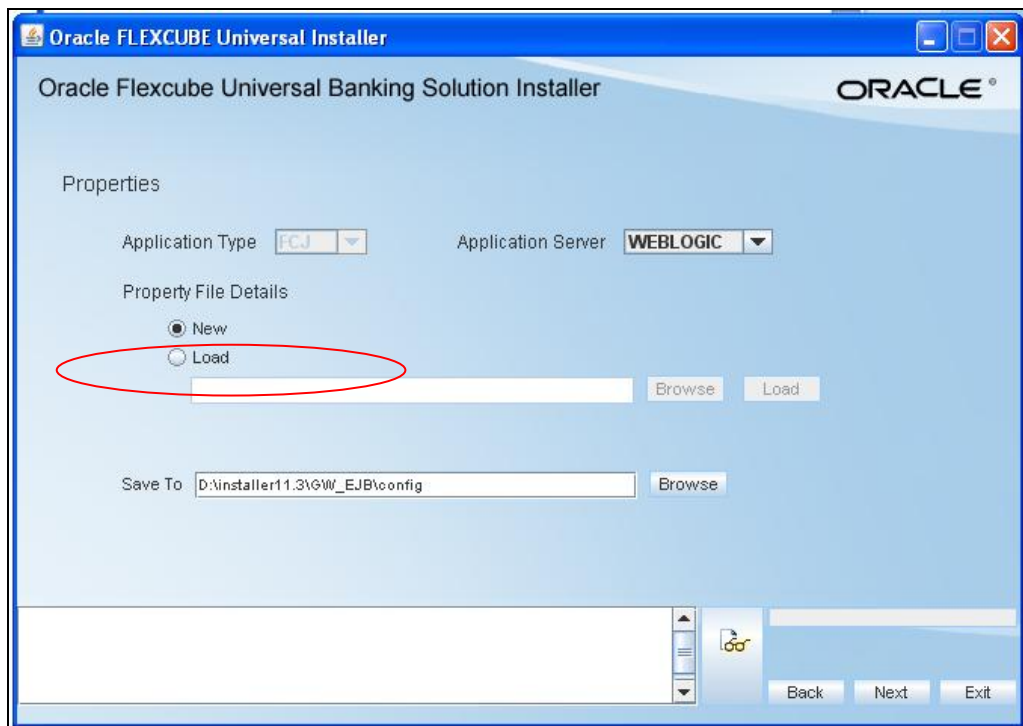
- Step-3 – Select Property File



- Step-4.a – Select Oracle FLEXCUBE Gateway EJB



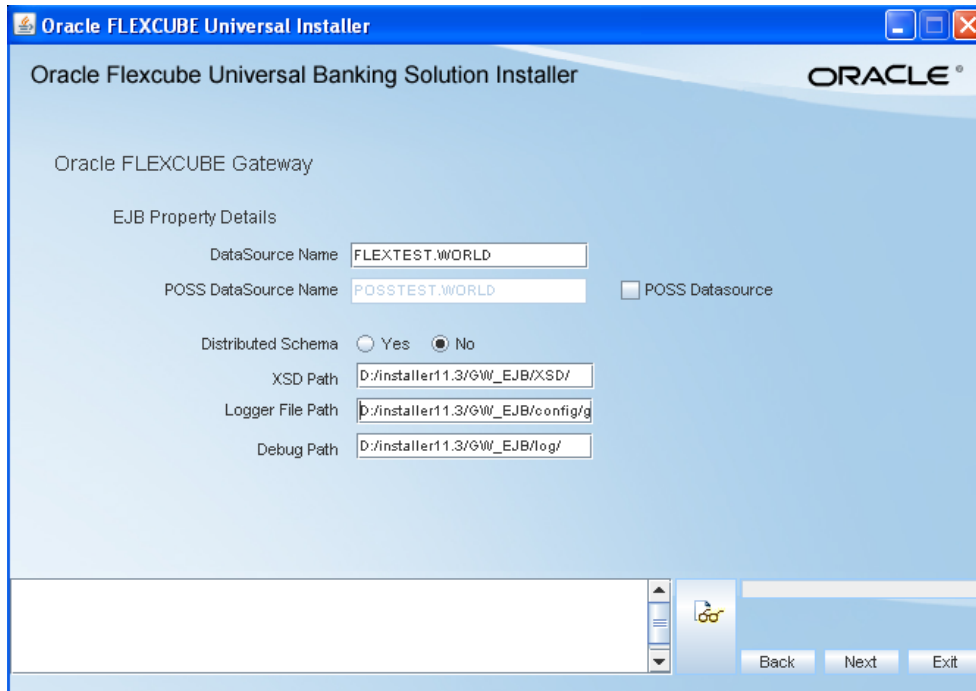
- Step-4.b – Select New



Specify the location in which new Property file for EJB application will be created.

Click Next

- Step-4.c – provide details



Details of the Property file for EJB.

Path location is mentioned where the specific files will be available. Here it is in local machine.

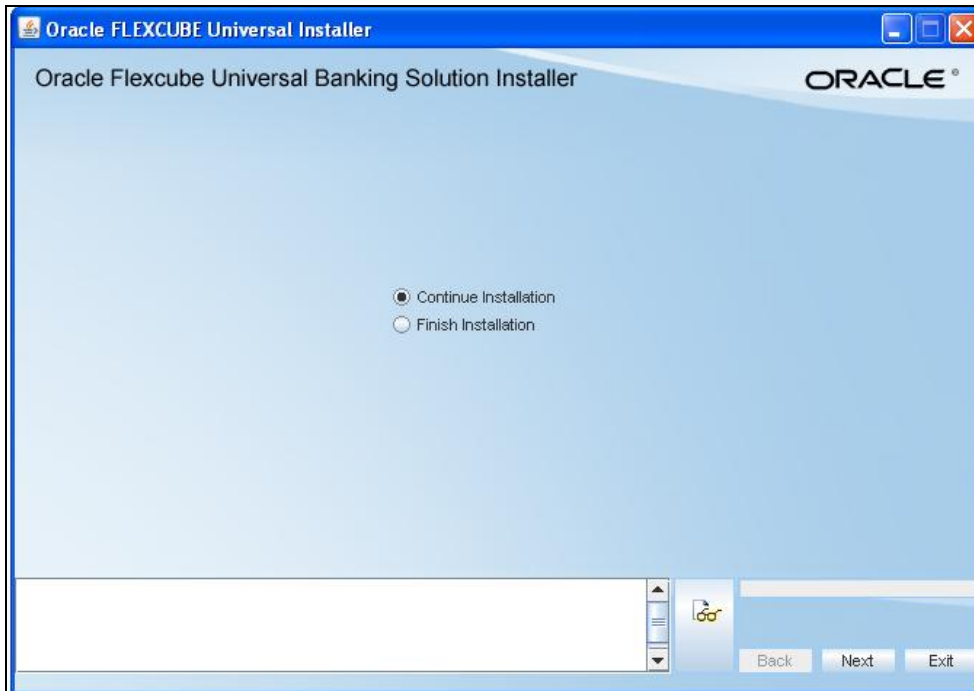
#### 5.4.4 Creation of Gateway EJB EAR file

This section describes the steps to create the Gateway EJB EAR file

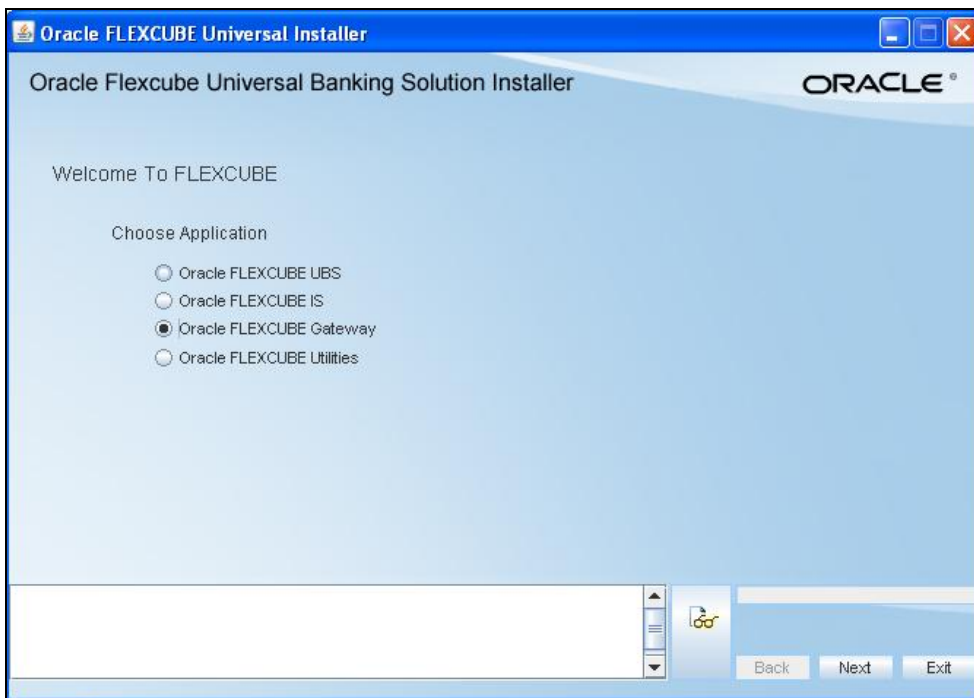


*Skip this section(steps 5 to10) if Gateway EJB is already deployed in Target FLEXCUBE IS environment.*

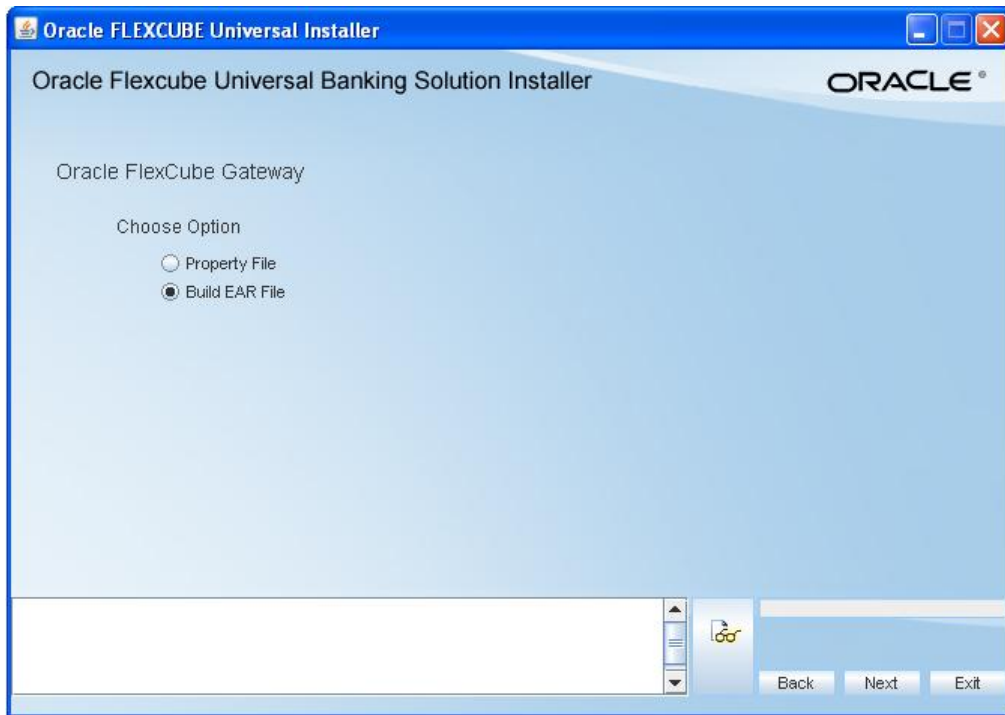
- Step-5- Click on Continue to generate Gateway EJB EAR file



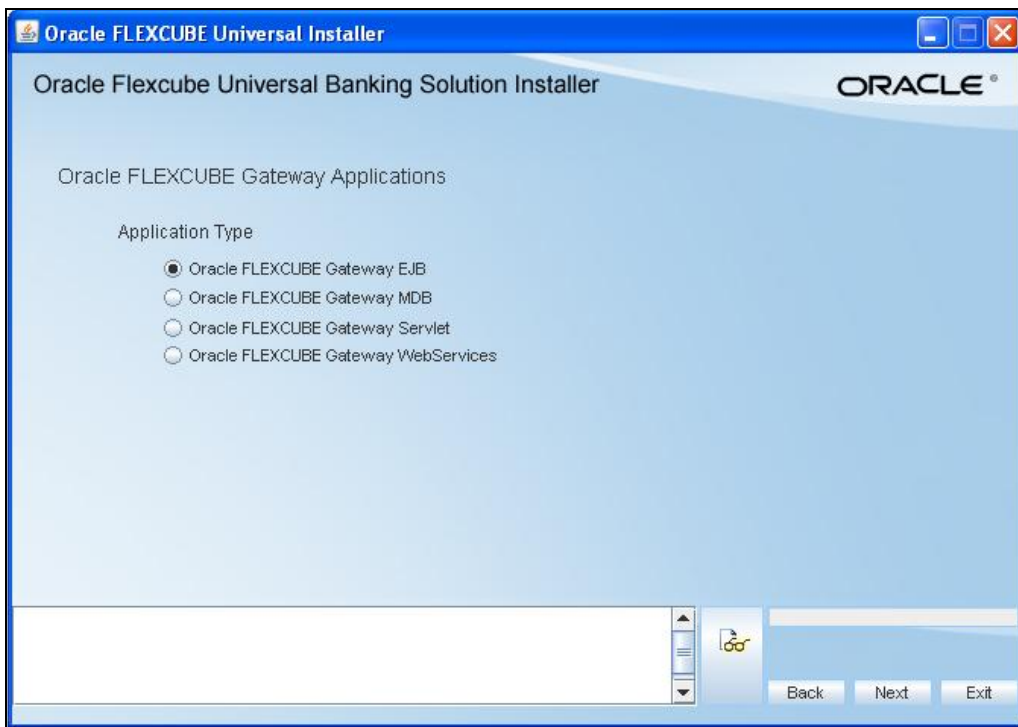
- Step-6.a –Select Oracle FLEXCUBE Gateway



- Step-6.b –Select Build EAR file



- Step-7 –Select Oracle FLEXCUBE Gateway EJB



- Step-8 Provide Application build details

- Source directory: Source from which it will generate files.
- Destination directory: Location where the files will be generated.
- Application name: Name for the EJB application that is created.
- EAR file path: Location where the EAR file will be generated.
- Property file path: Location of Property file generated for EJB application.

Oracle FLEXCUBE Universal Installer

Oracle Flexcube Universal Banking Solution Installer

Build Application

Application Path Details

Source Directory: D:\installer11.3\SOURCE\Gateway Browse

Destination Directory: D:\installer11.3\GW\_EJB\ear\_file Browse

Application Name: GW\_EJB

EAR File Path: D:\installer11.3\GW\_EJB\ear\_file Browse

Property File Path: D:\installer11.3\GW\_EJB\config Browse Load

Back Next Exit

- Step-9 – Select Next

Oracle FLEXCUBE Universal Installer

Oracle Flexcube Universal Banking Solution Installer

Build Application

DISTRIBUTED SCHEMA

☐ Distributed Schema

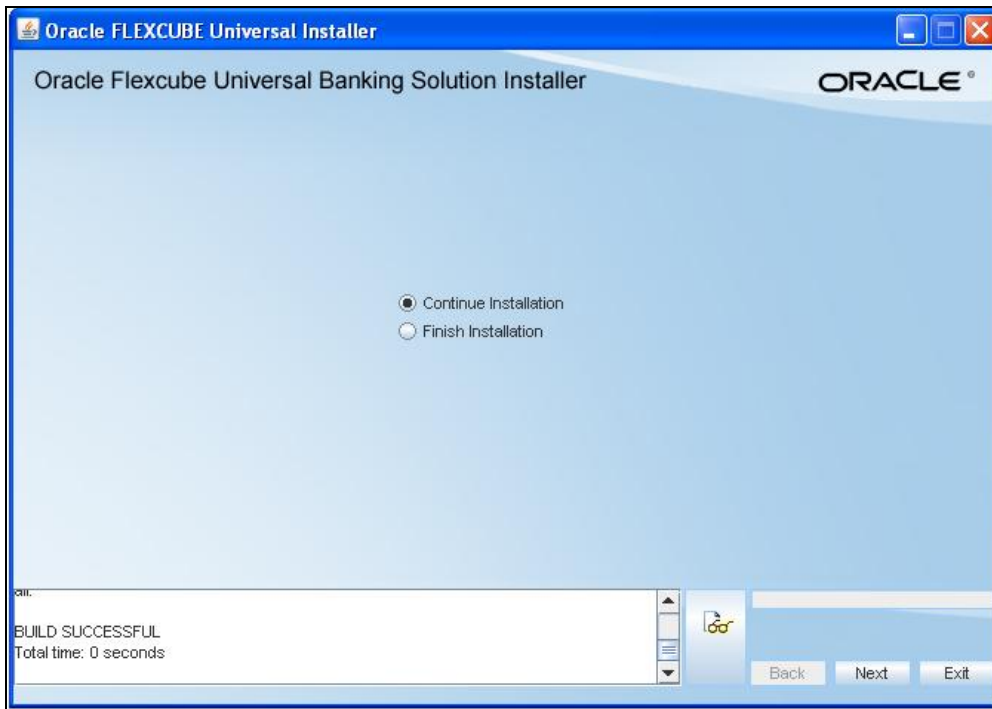
Datasource Name:

| DataSource | Include |
|------------|---------|
|            |         |

ADD DELETE

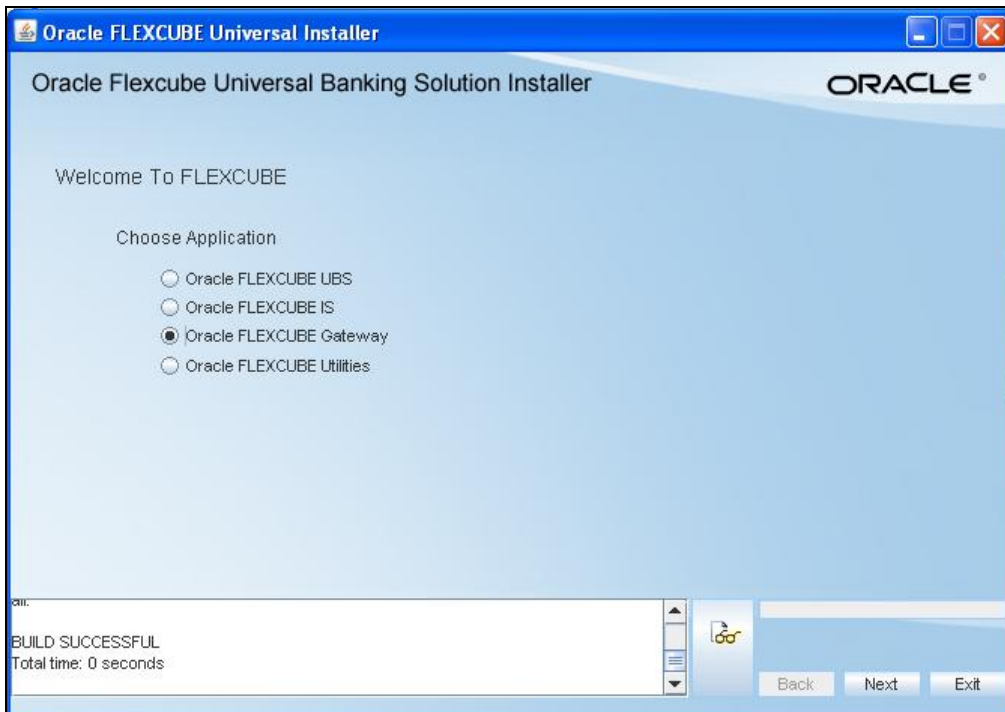
Back Next Exit

- Step-10 – Ensure message. BUILD SUCCESSFUL

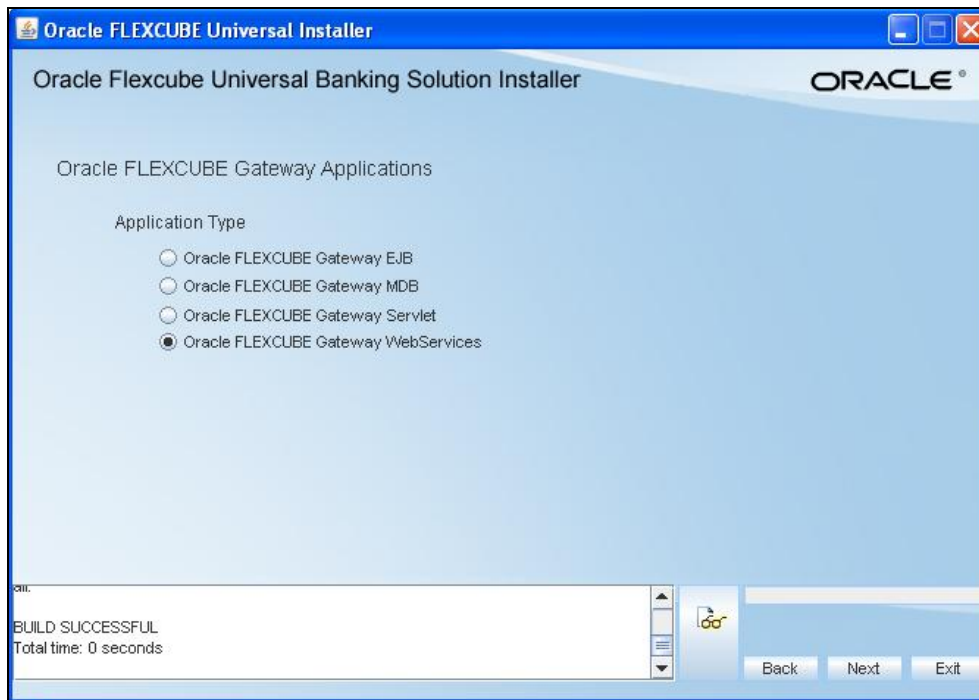


#### 5.4.5 Creation of Web Service property file

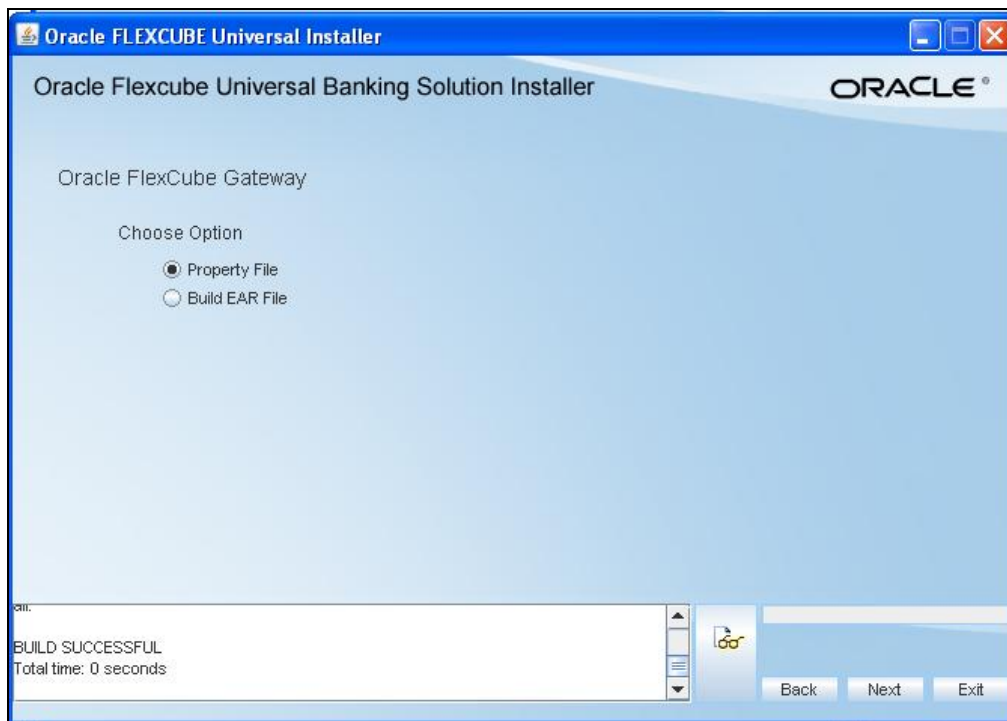
Step-a.1) Select Oracle FLEXCUBE Gateway



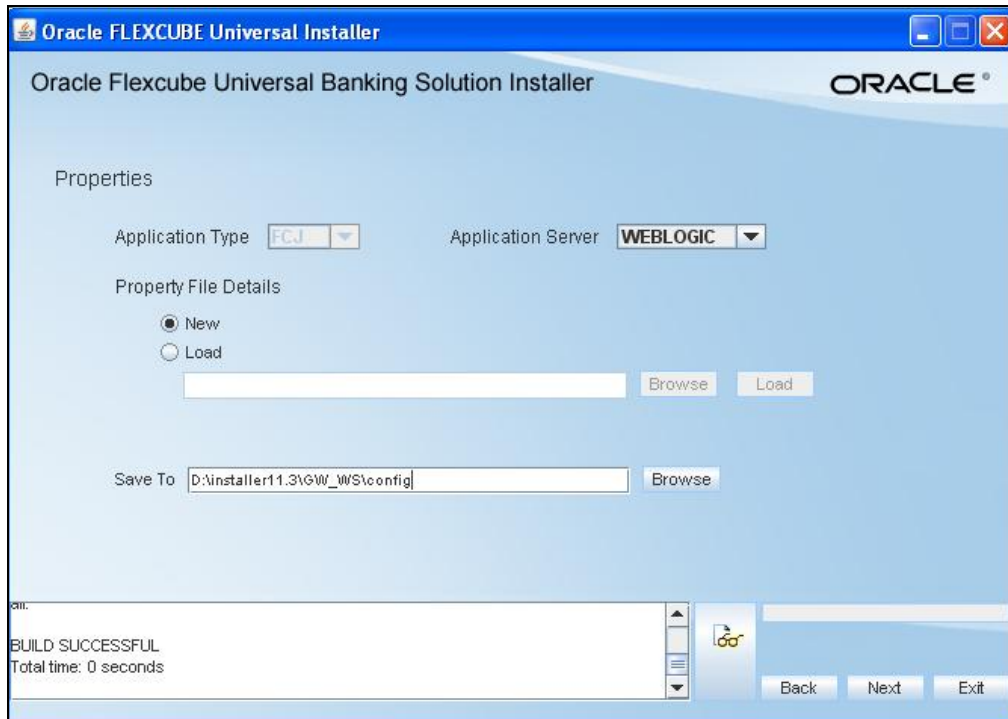
Step-a.2) Select Oracle FLEXCUBE Gateway Web Services



Step-b - Select Property file

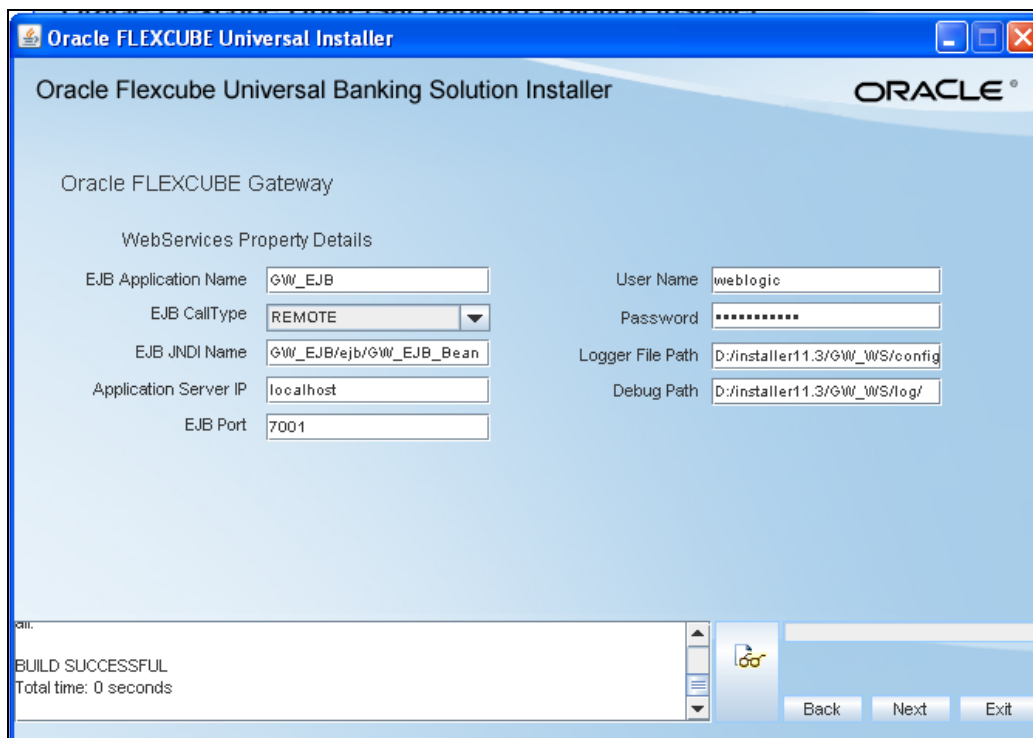


Step-c - Specify the location for property file generation

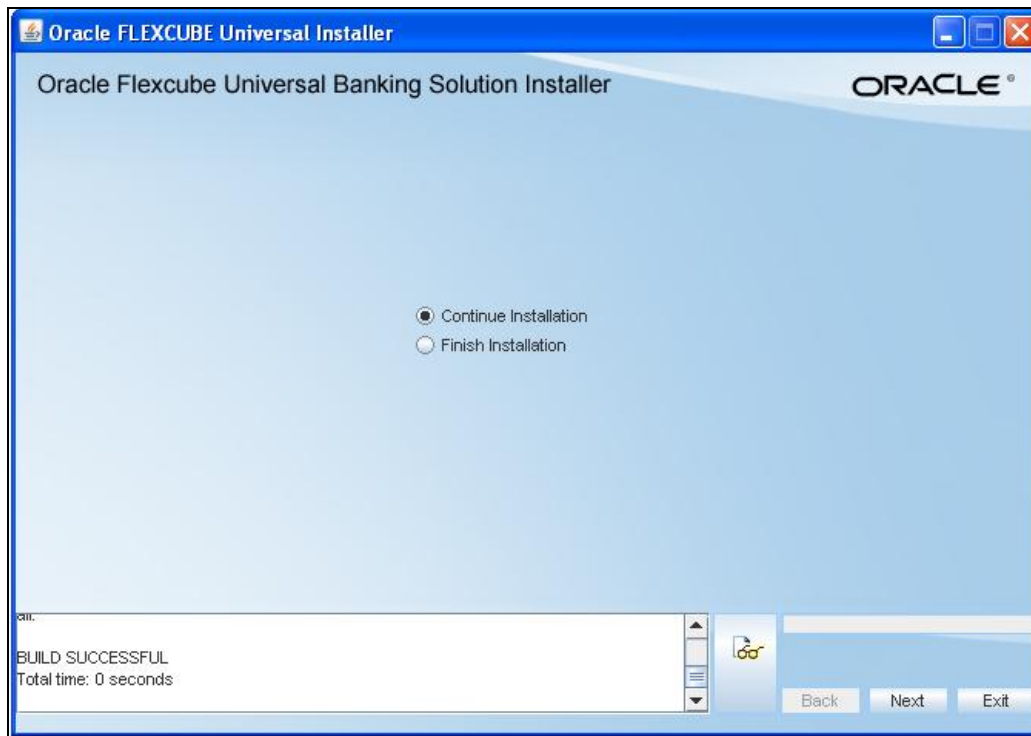


Step-d - Mention Gateway EJB Name and details

Application sever name needs to be mentioned along with the path where the log and debug file for the WebServices needs to be stored

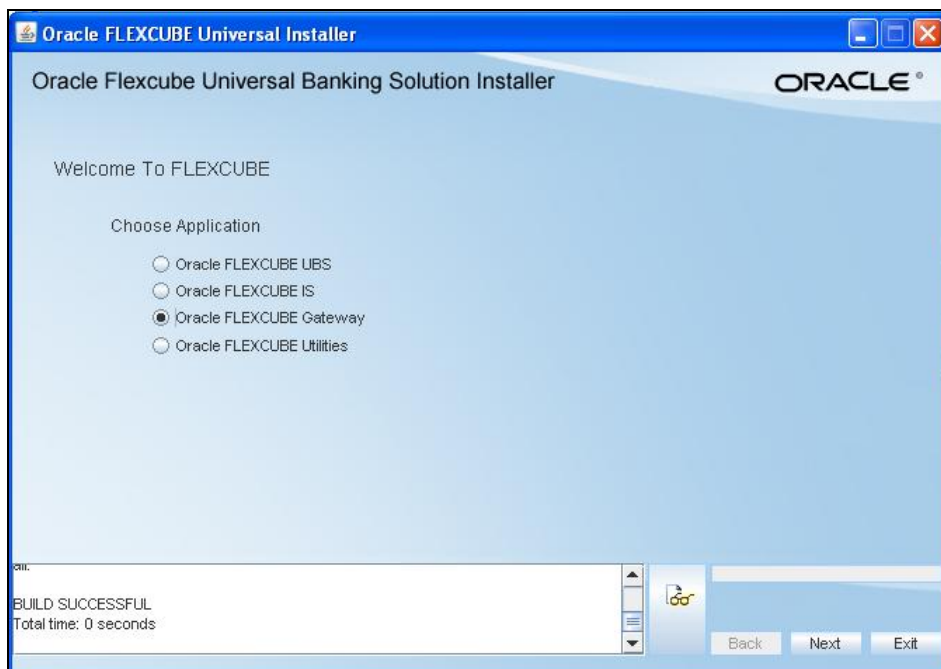


Step-e – select continue to build EAR file for web service

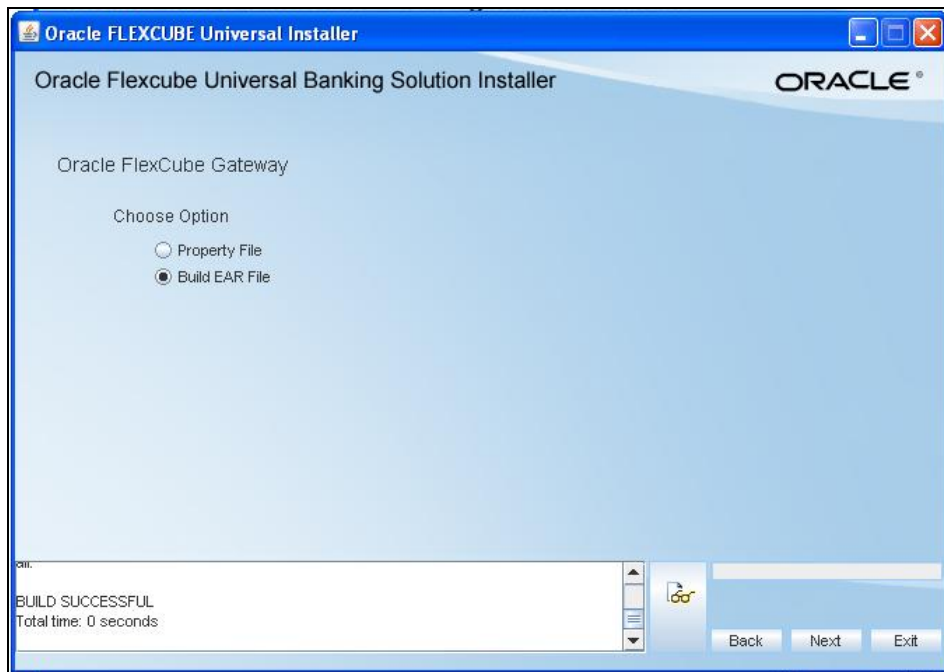


#### 5.4.6 Creation of Web Service EAR file

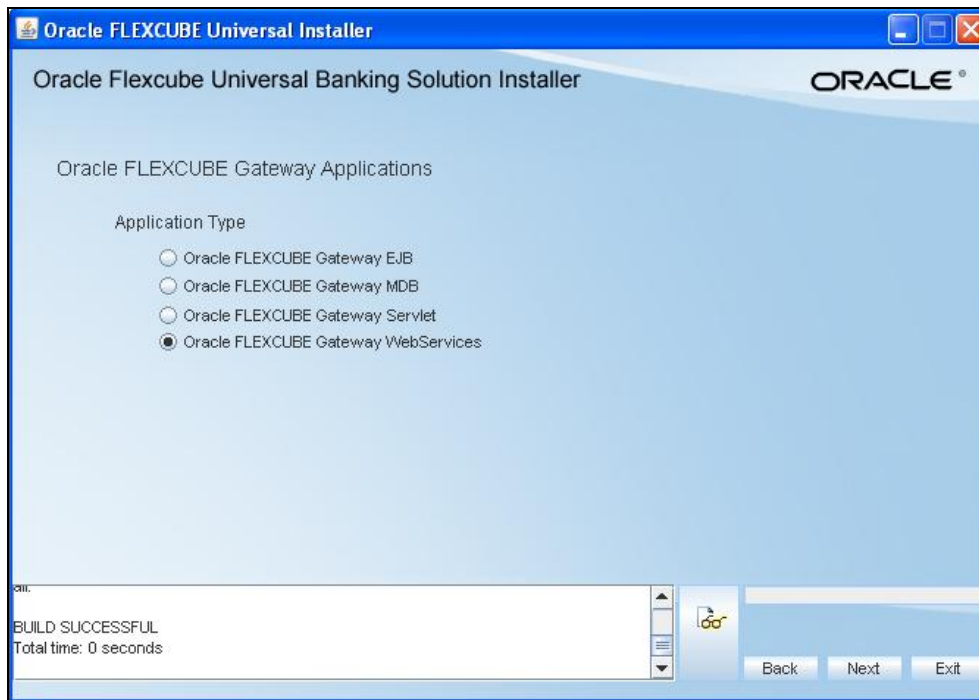
Step-f -Select Oracle FLEXCUBE Gateway



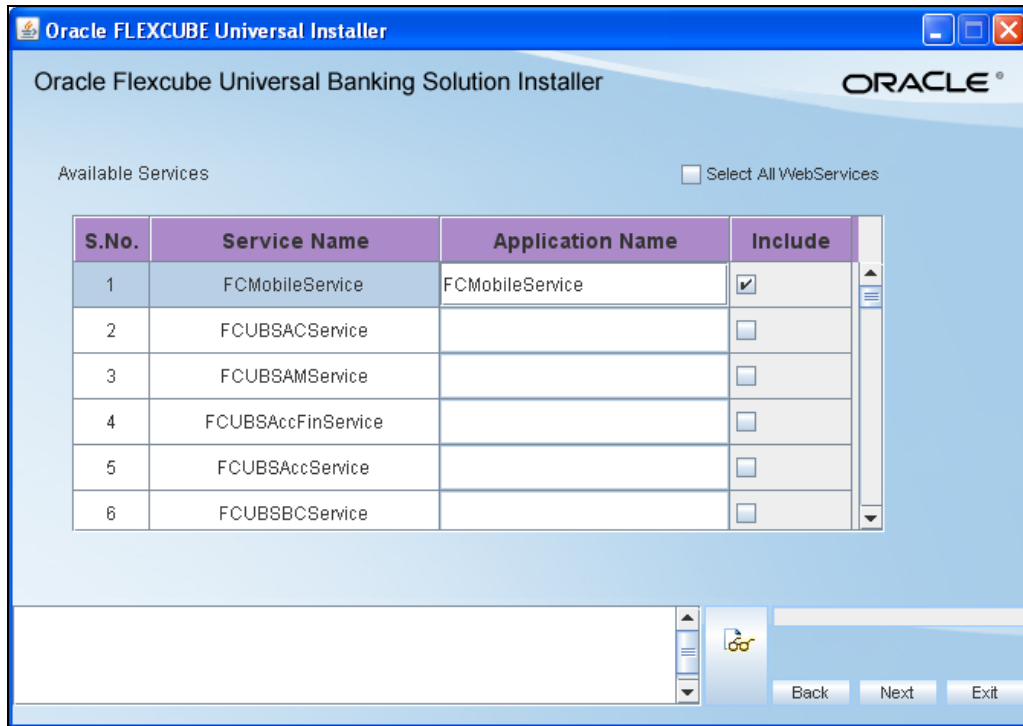
Step-g – Select Build EAR file.



Step-h –Select Gateway WebServices



Step-I – Select the Web service name.



### 5.4.7 Adding New Service to the List

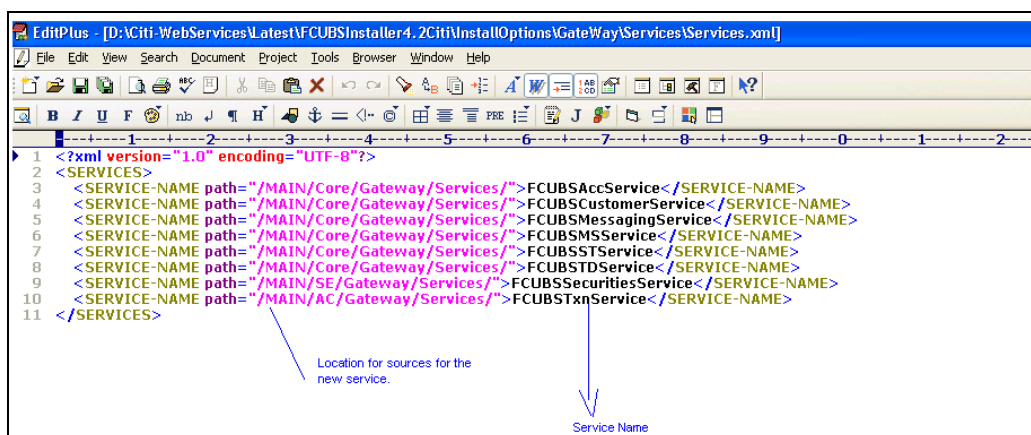
To add a new service to the pick list, change the Services.xml which present in the installer sources. This file can be found at "<Installer Source Area>\InstallOptions\GateWay\Services\Services.xml"

Add your new service to the existing list by using **<Service-Name>** tag.

**Example:**

**<SERVICE-NAME**

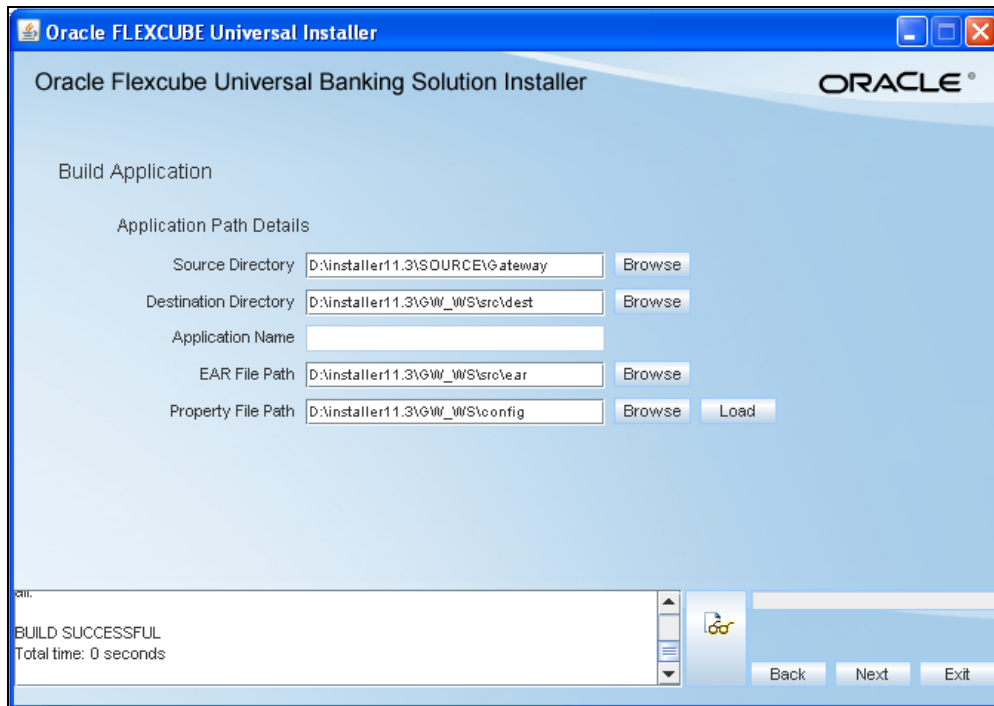
**path="/MAIN/CORE/GATEWAY/SERVICES/">FCMobileService</SERVICE-NAME>**



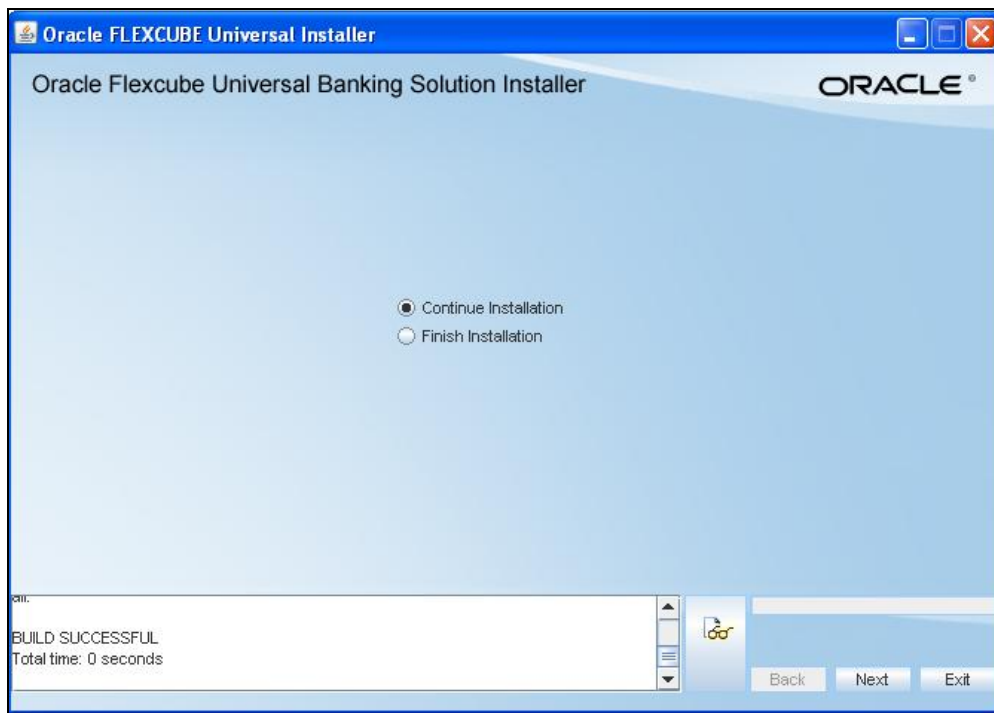
Step-j – Provide path details

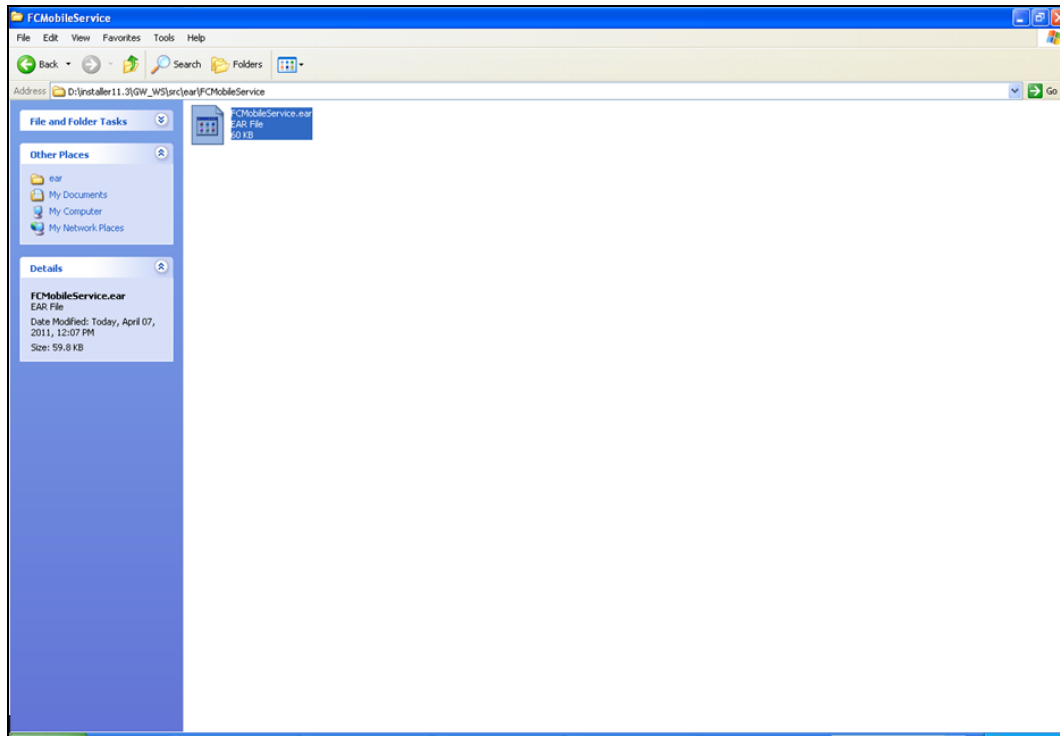
- Source directory: Source from which it will generate files.

- Destination directory: Location where the files will be generated.
- EAR file path: Location where the EAR file will be generated.
- Property file path: Location of Property file that available



Step-k – Ensure build successful and EAR file generated





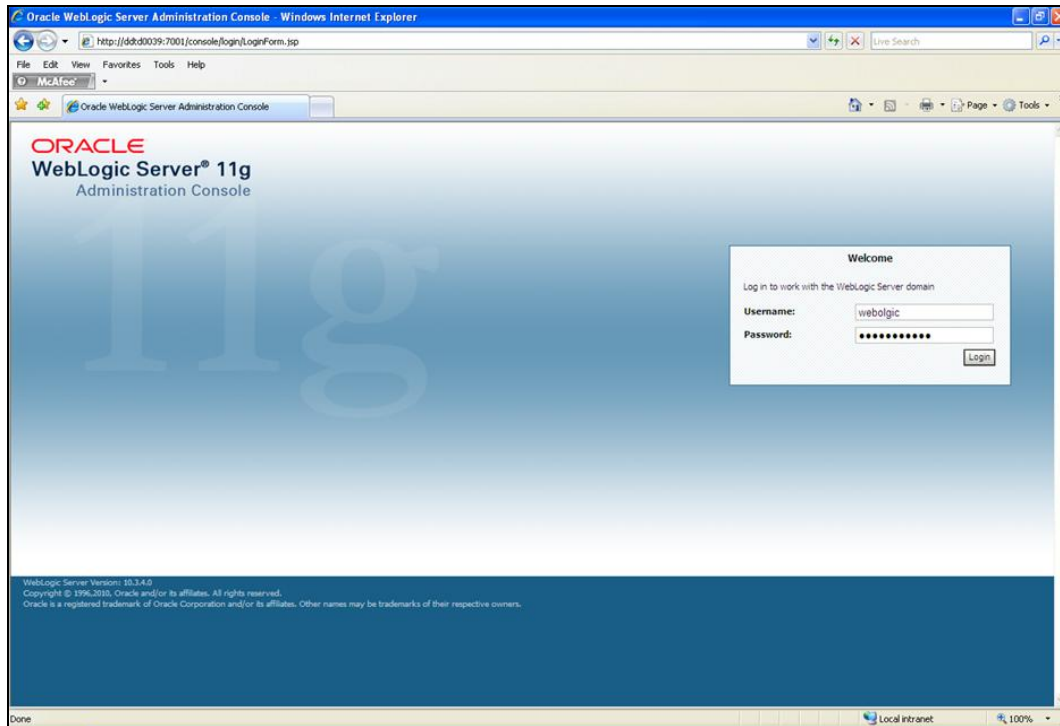
## 5.5 Deploying of EAR file

This section explains the steps to deploy the Web service EAR files on Oracle Weblogic Application server 11g

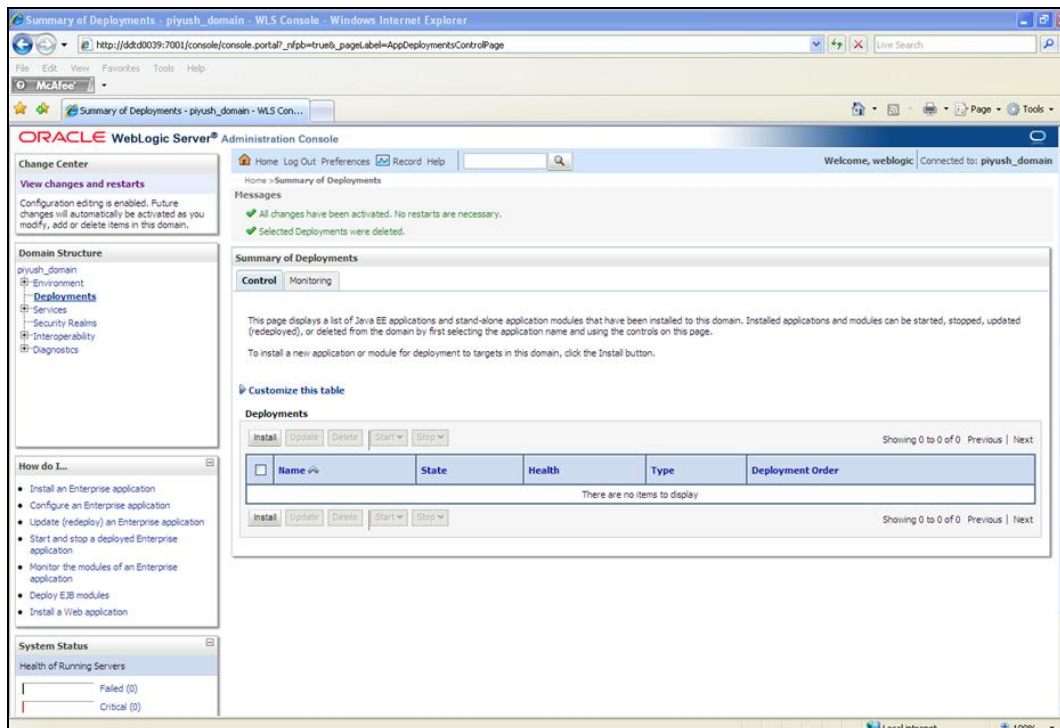
### 5.5.1 Deploying of Gateway EJB EAR file

This section discusses the deployment steps of Gateway EJB file. Skip this section if the Gateway EJB is already deployed in Target FLEXCUBE environment.

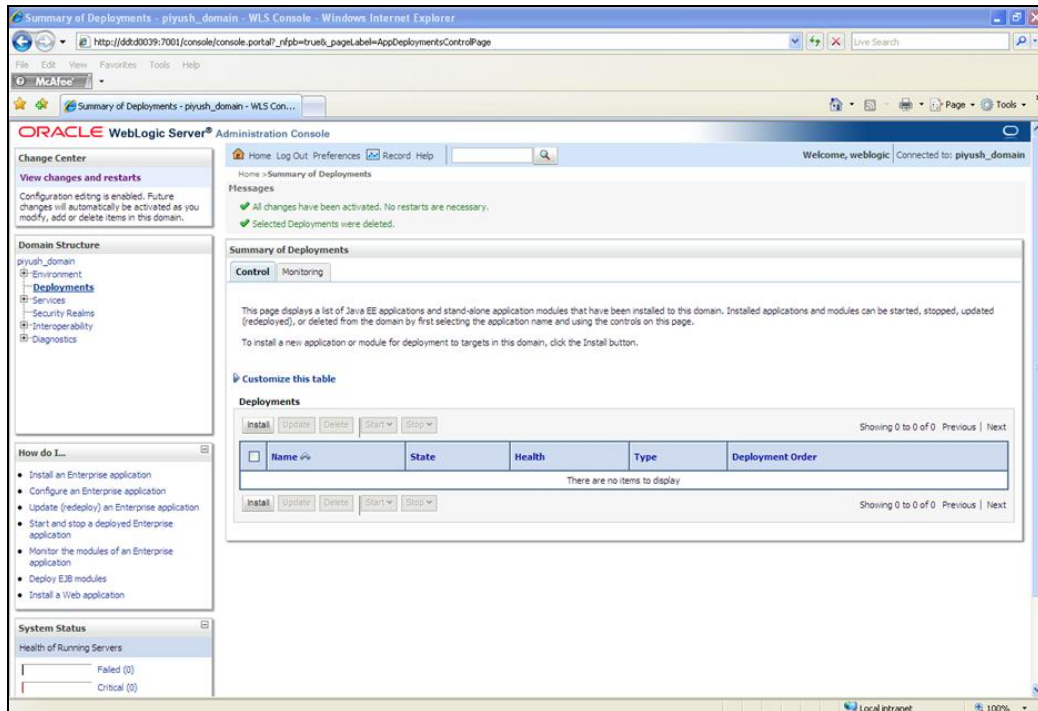
Step-1 – Login to Web logic application server



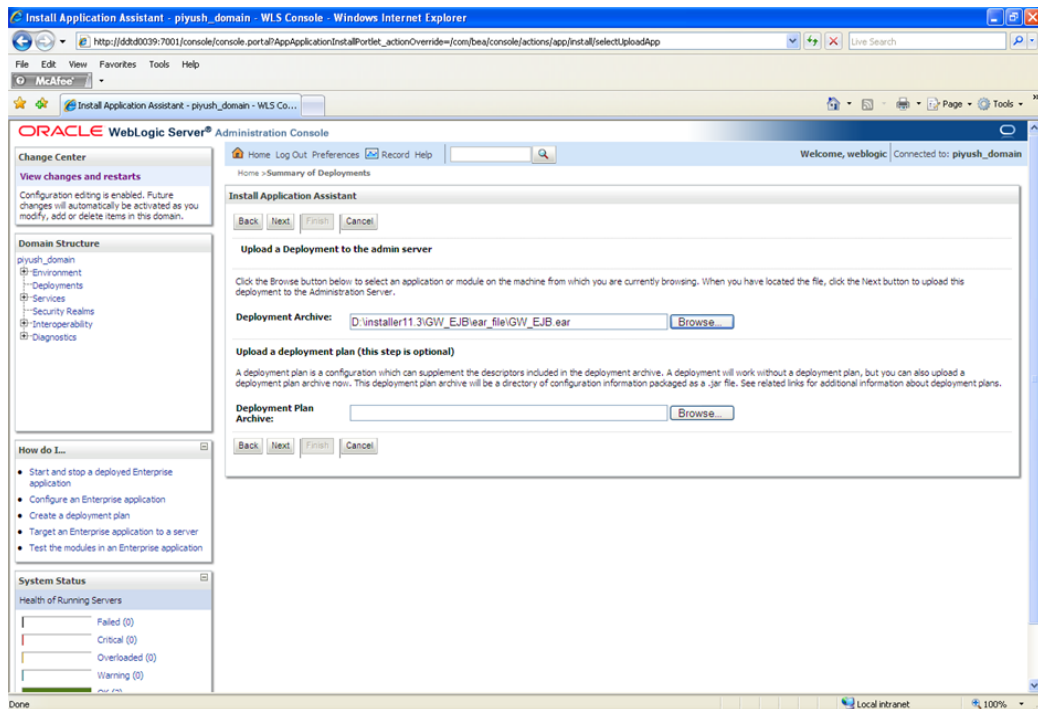
## Step-2 – Select Deployments and Install



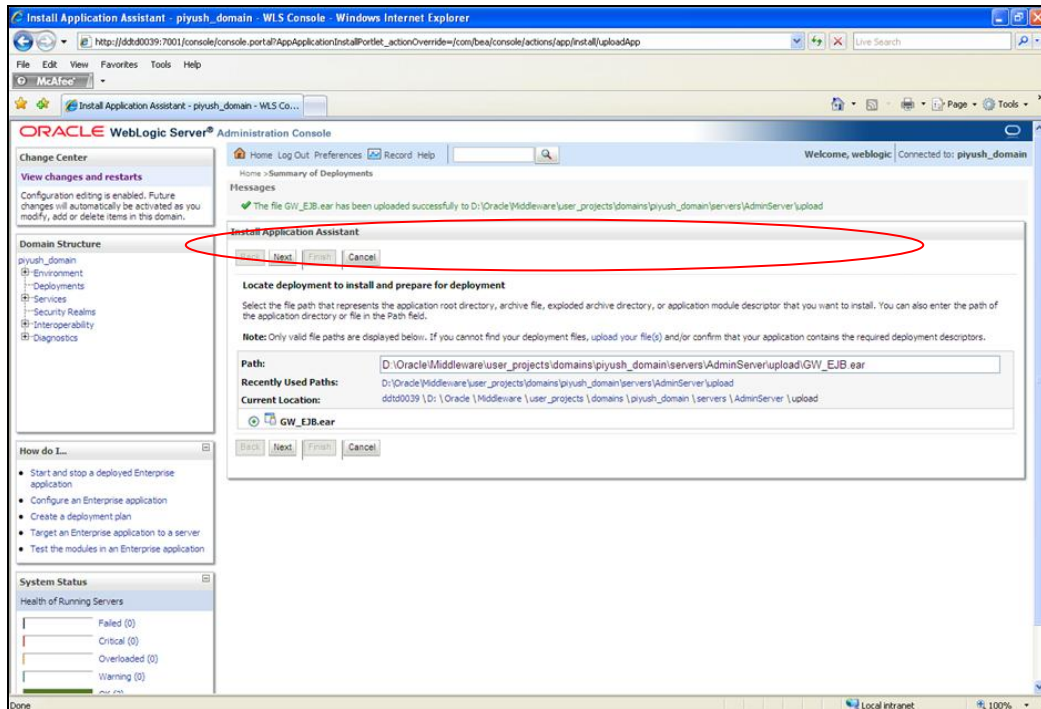
## Step-3 –Select Upload your file



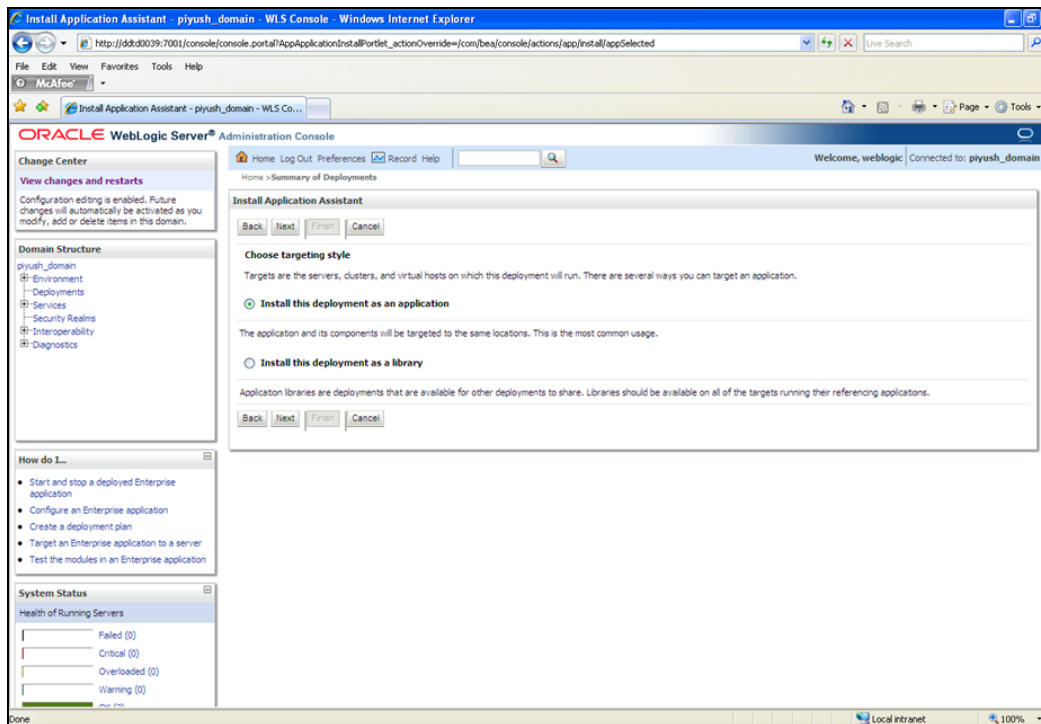
Step-4 – Select the path where Gateway EJB EAR generated



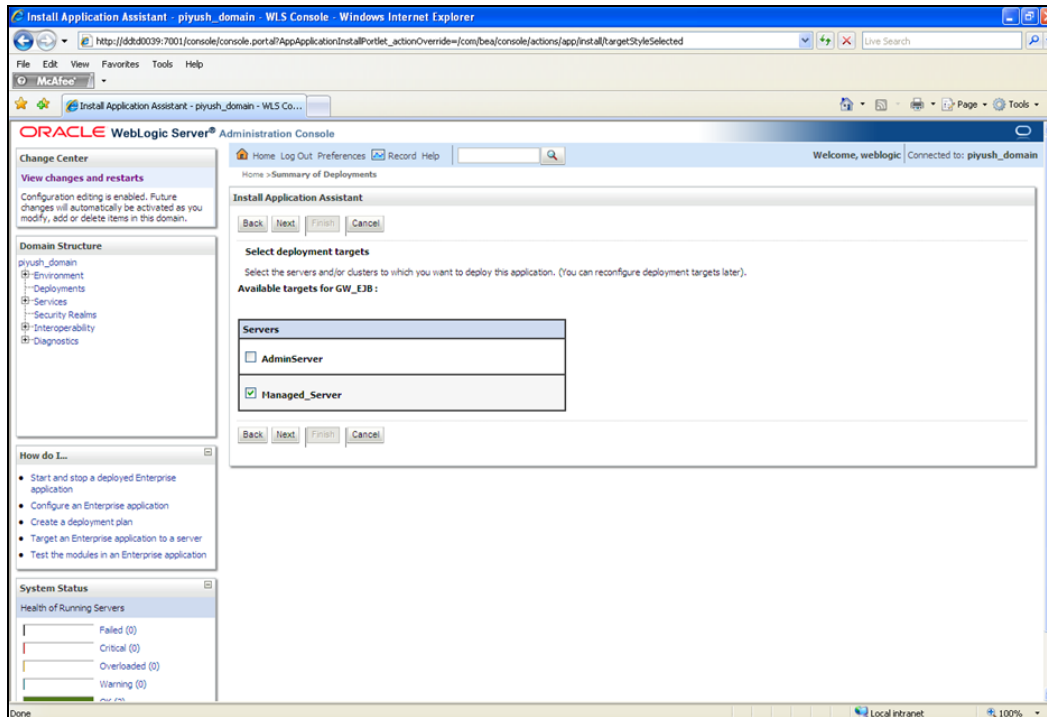
Step-5 – Ensure upload success and select Next



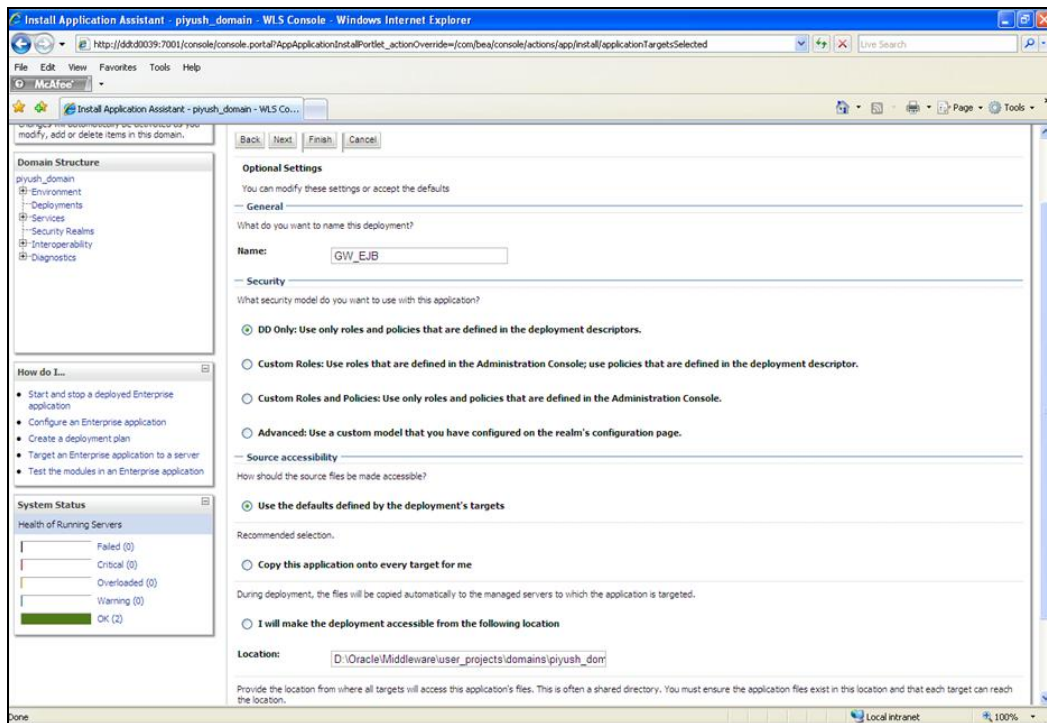
Step-6 – Select Install the deployment as an application



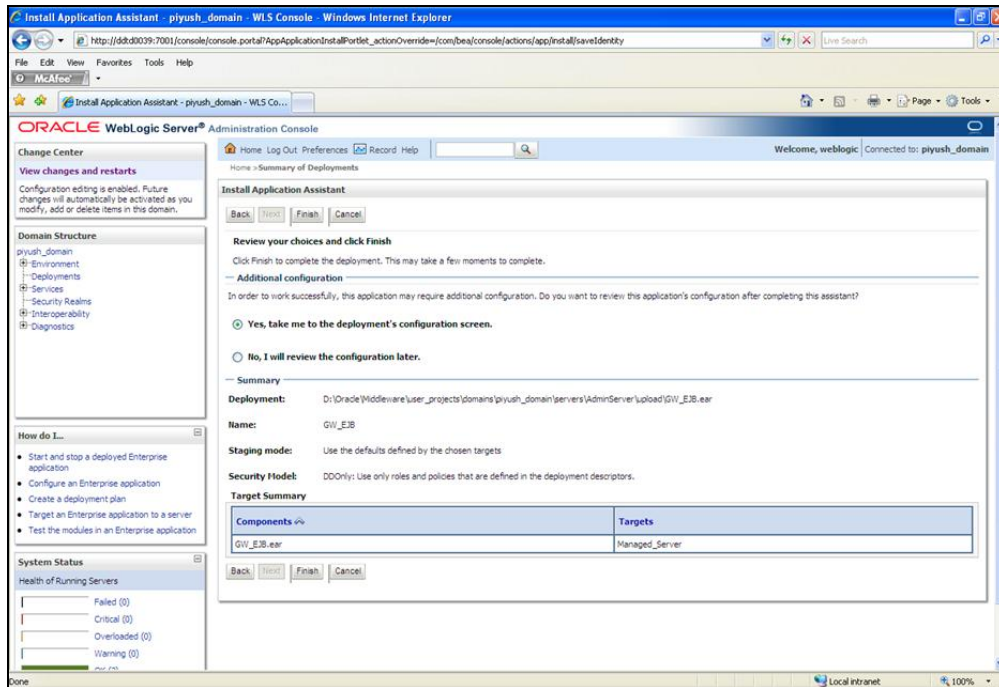
Step-7 – Select the appropriate Server where application need to be deployed



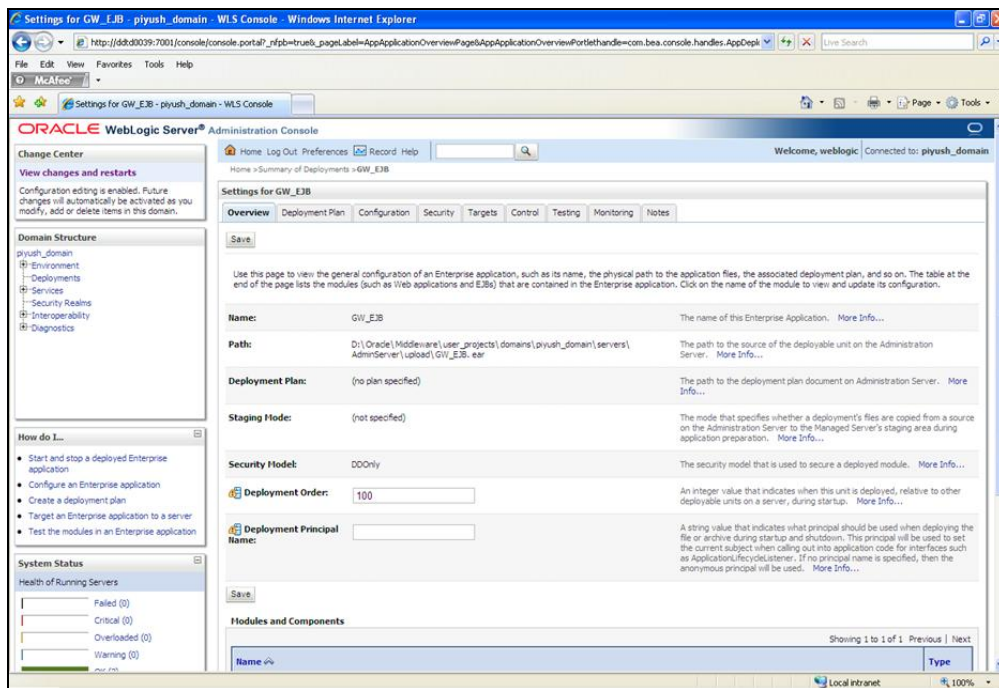
## Step-8 – Select Next



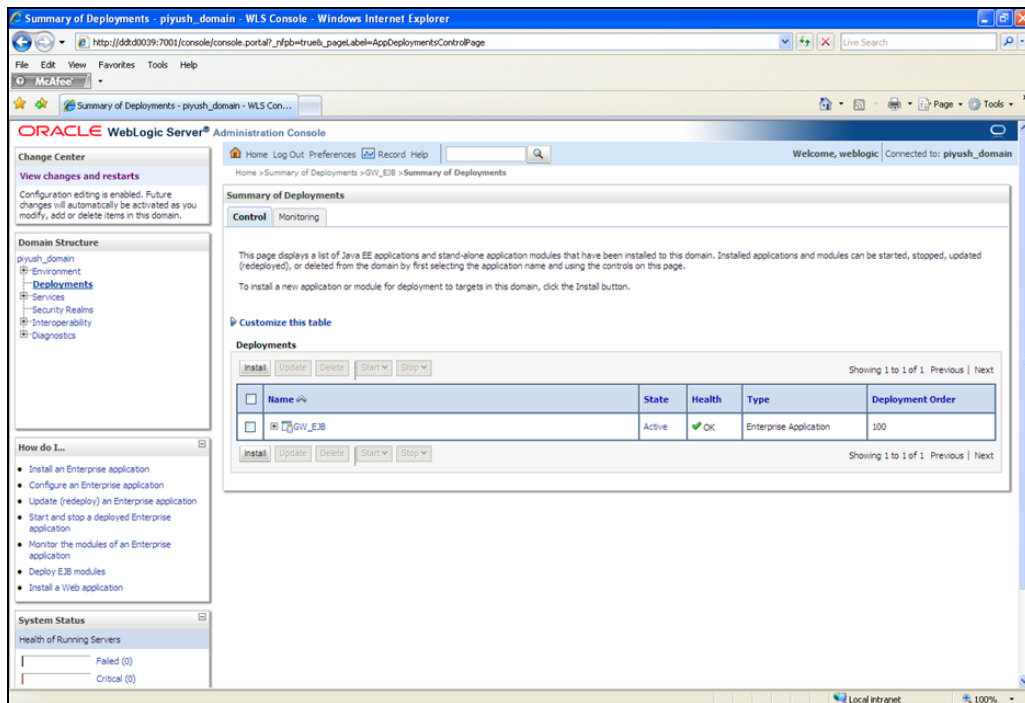
## Step-9 - Select Finish



## Step-10 – Select Save



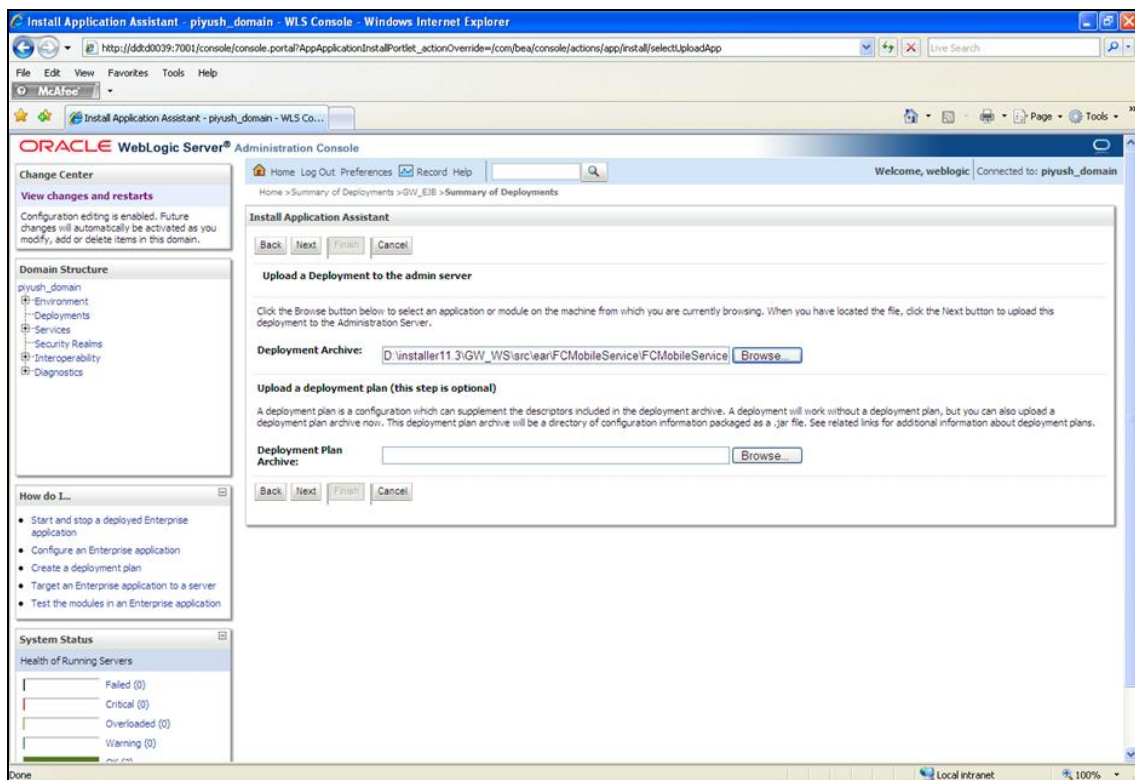
## Step-11 – Ensure the GW\_EJB application is Active and health OK



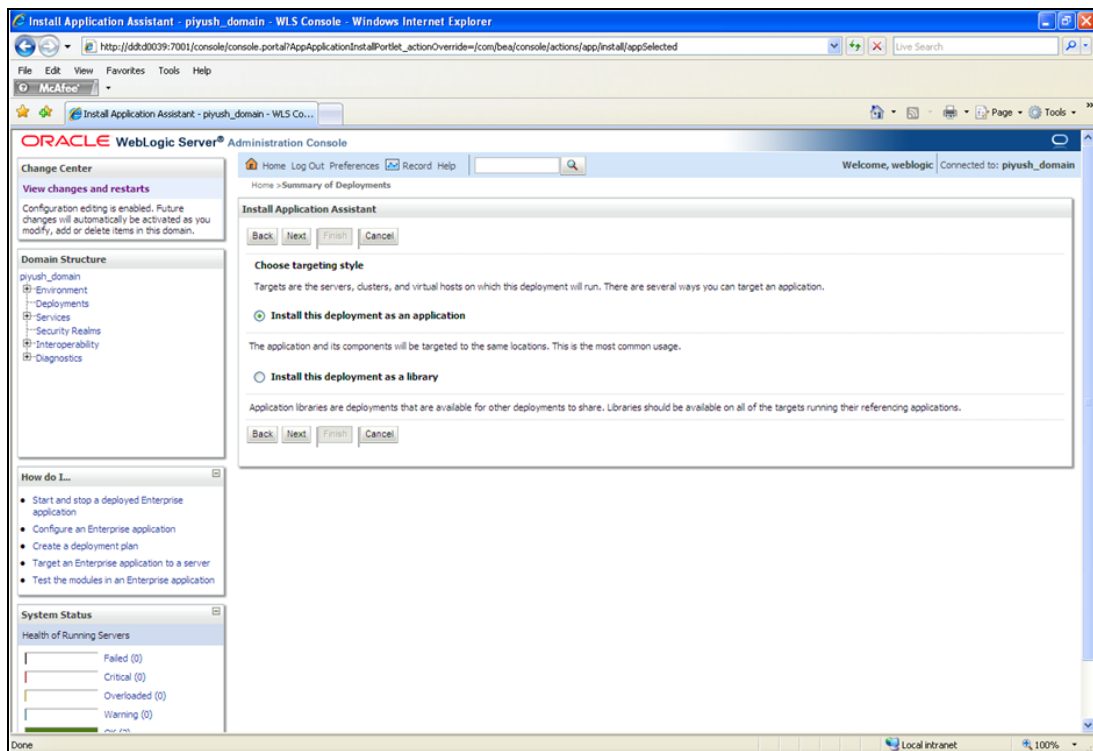
## 5.5.2 Deploying of Web Service EAR file

This section describes the steps to deploy the Web service EAR file.

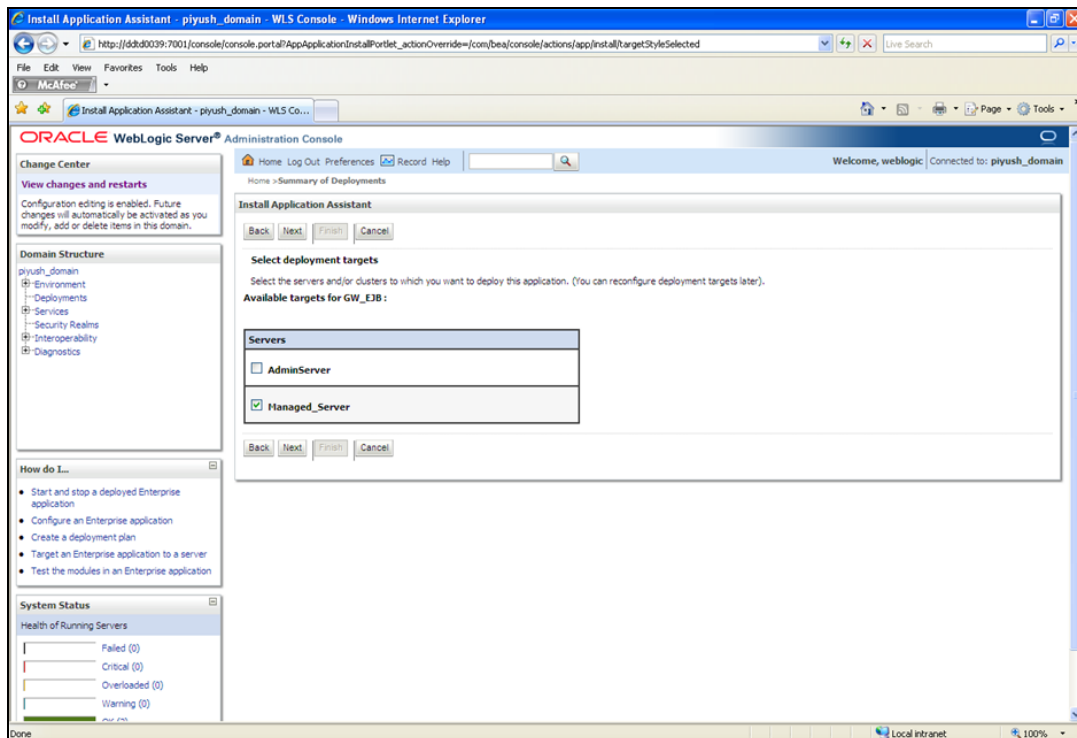
Step-a – Select upload your file and pick the web service EAR file



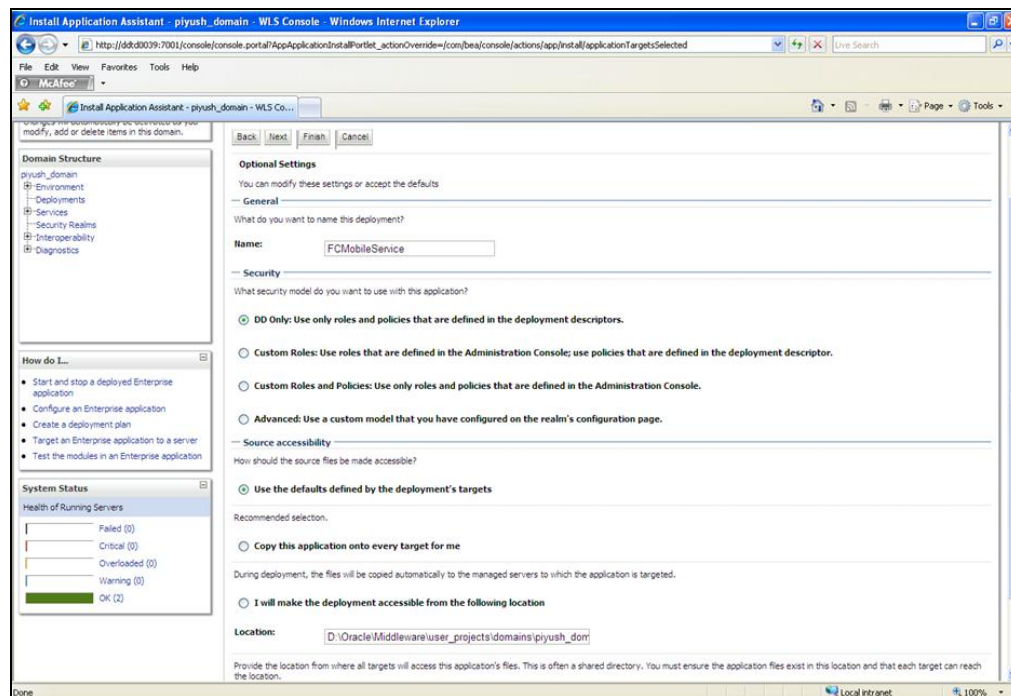
Step-b – Select Install the deployment as an application



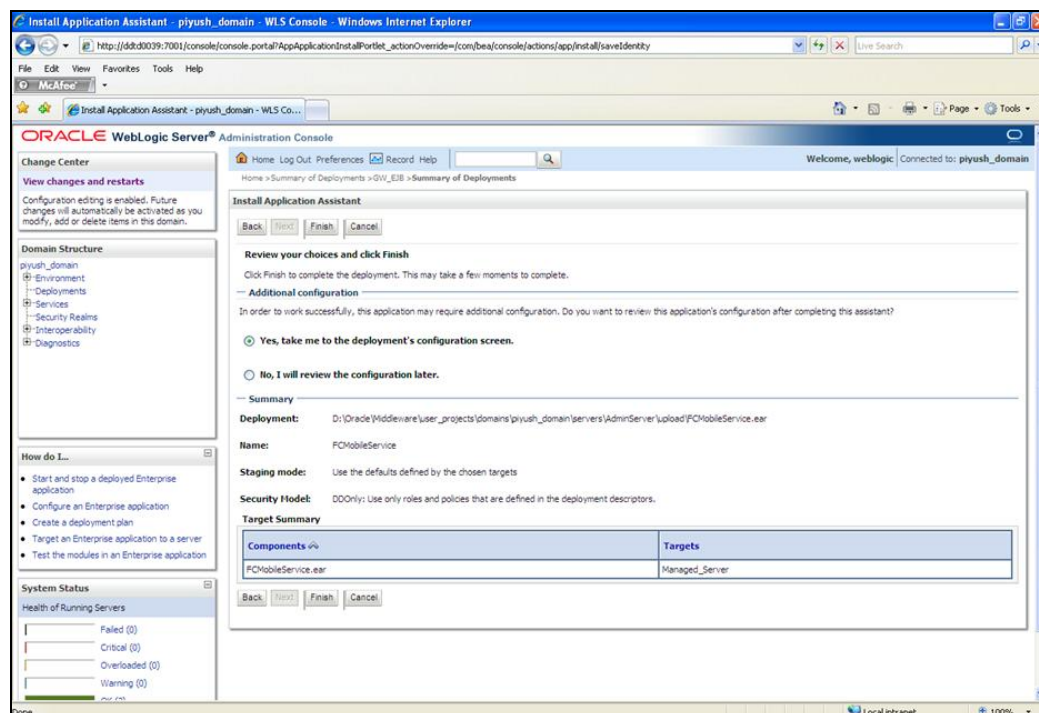
Step-c – Select the Server appropriately



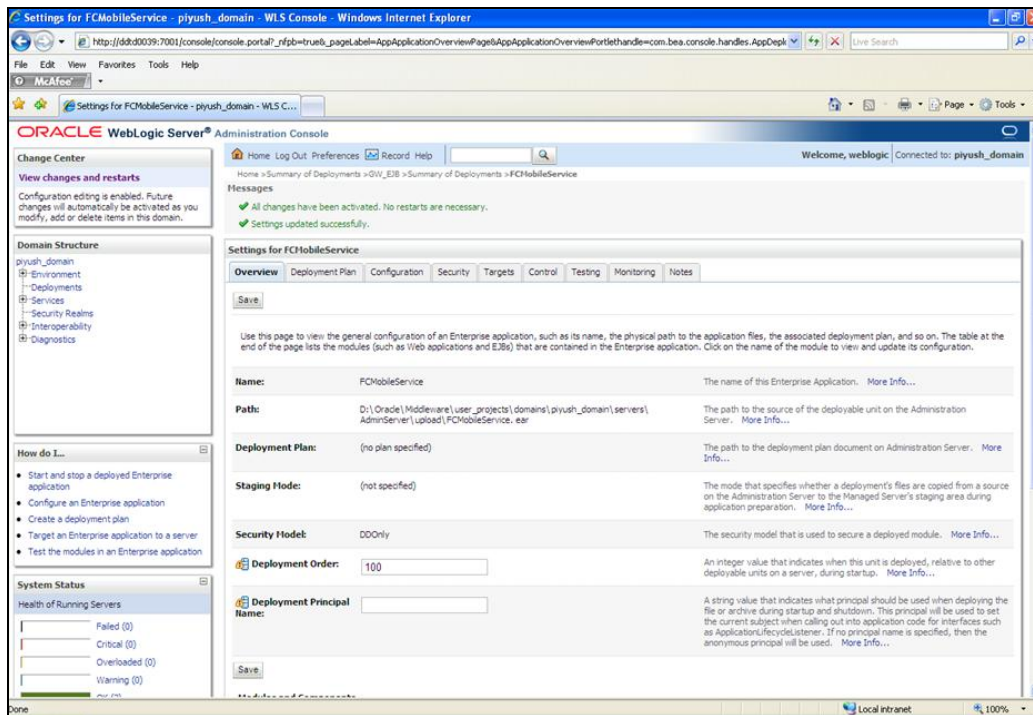
## Step-d – Select Next



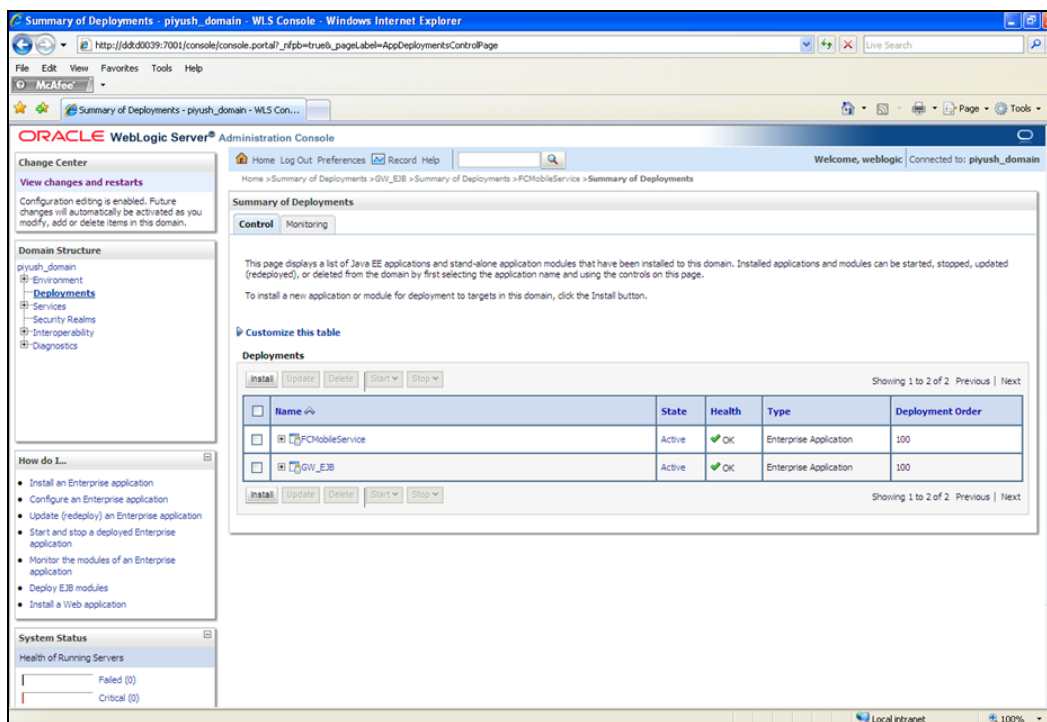
## Step-e – Select Finish



## Step-f – Ensure successful messages shown



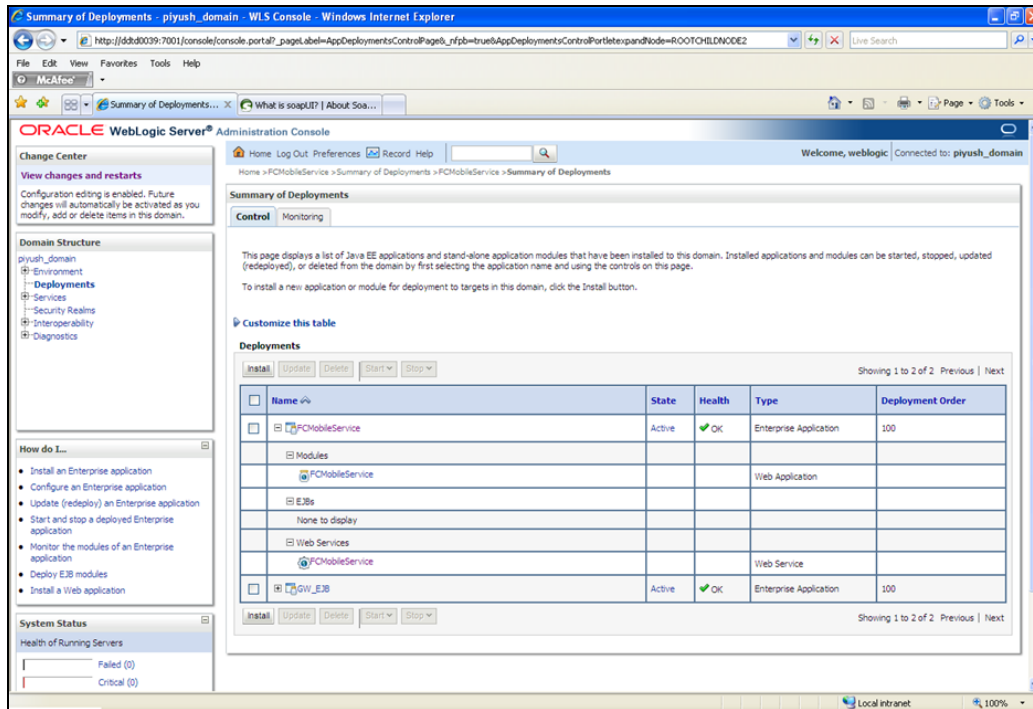
Step-g – Save the deployment and ensure it started OK



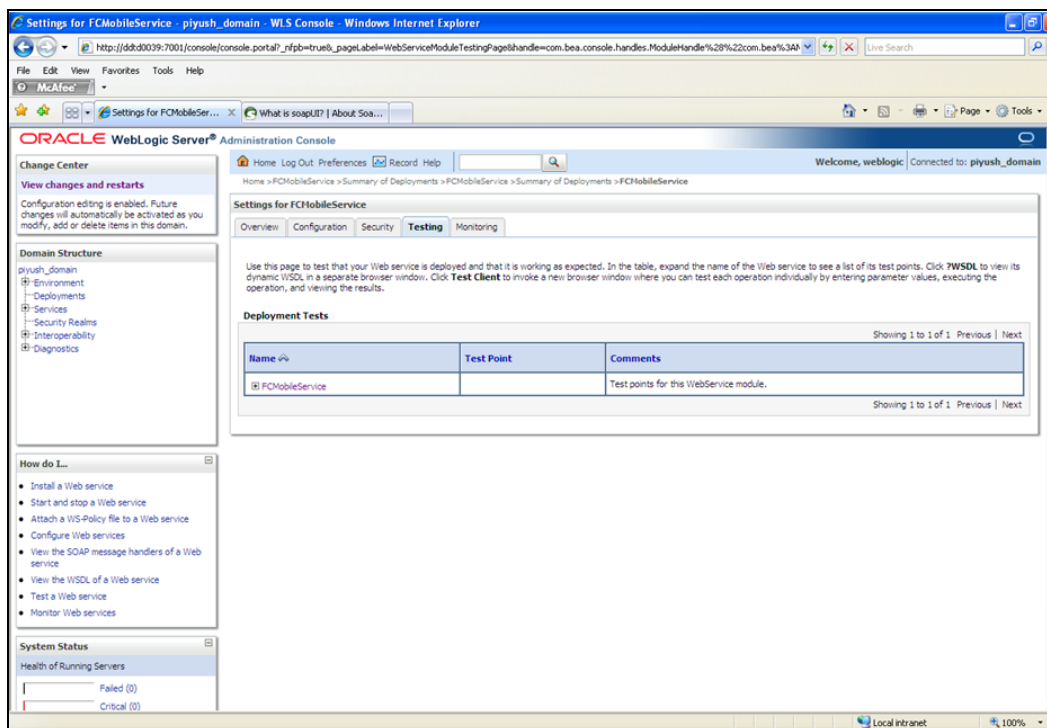
## 5.6 Testing the Web Service

This section describes the steps to test the web service in Web logic application server.

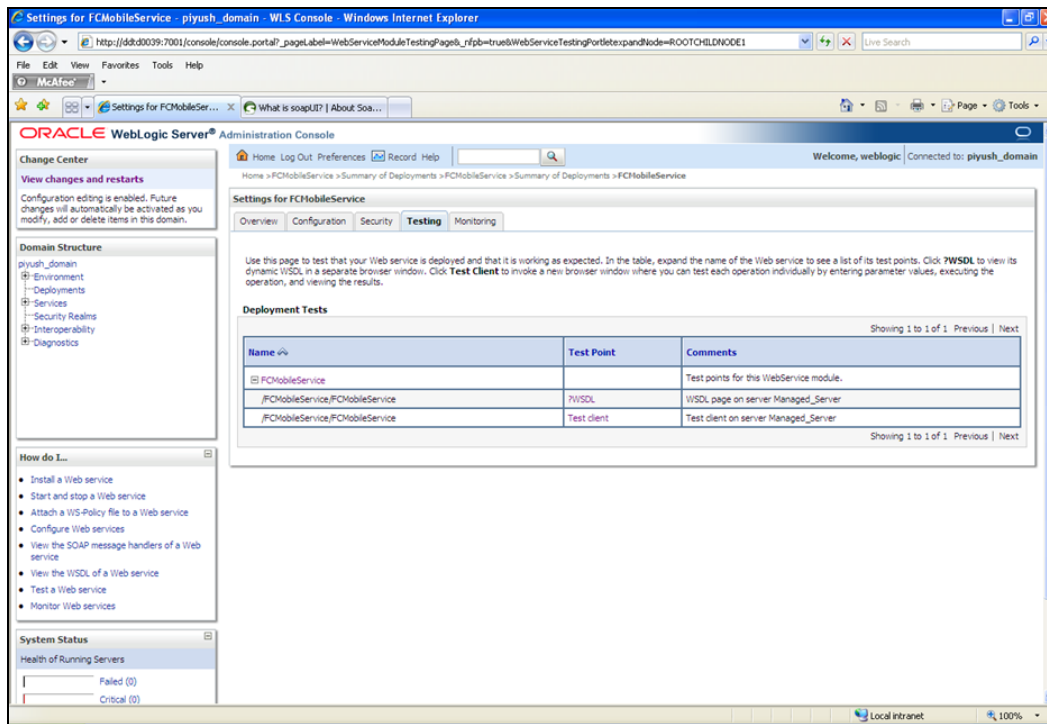
Step-1 – expand Web service and select Web service that need to be tested



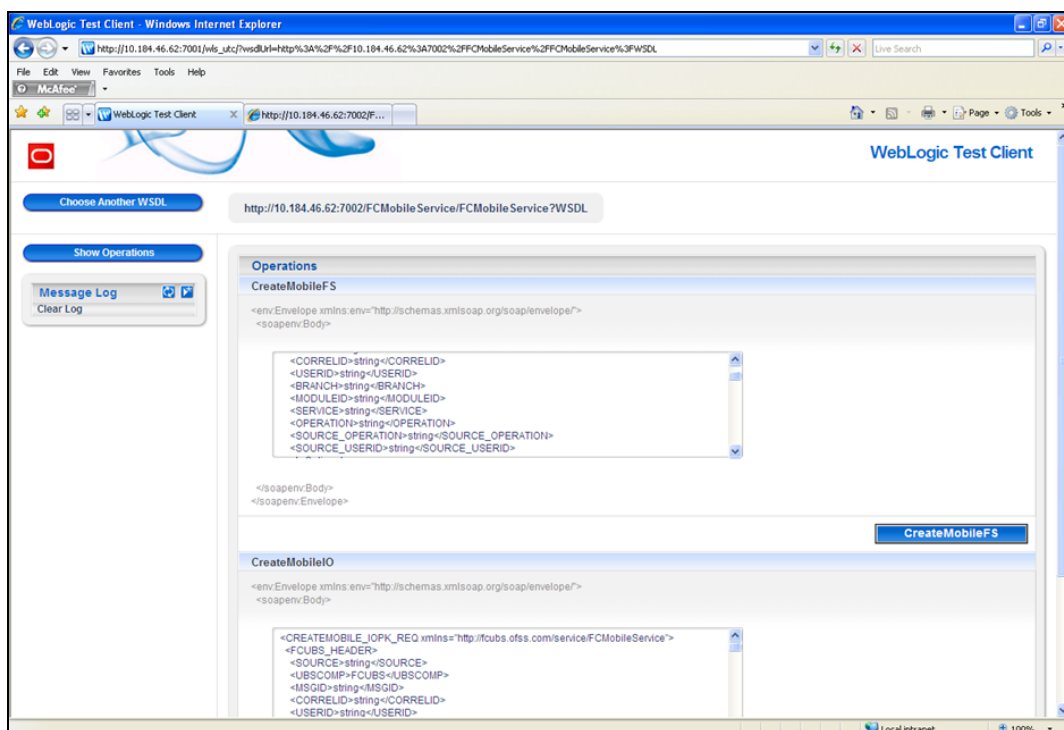
## Step-2 – Select Testing



## Step-3 – Select Test Client



Step-4 – Populate the request XML message with business data and select Operation. Check the response XML thrown.

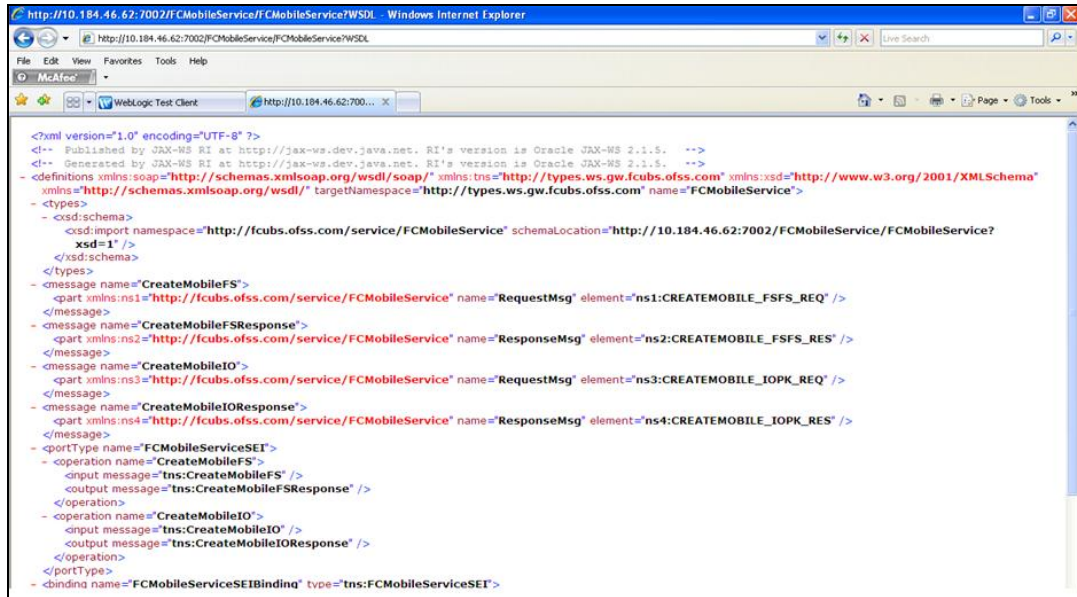


Also Copy & paste the WSDL Url onto a browser to check whether the Web service is running.

WSDL Url: <http://<IP address>:<Port>/<Service Name>/<Service Name>?WSDL>

**Example:** <http://10.184.46.62:7002/FCMobileService/FCMobileService?WSDL>

On pasting the WSDL URL, the WSDL should be displayed in the browser, which confirms the status of Web service to be running.



---

## 6. Annexure A – FCMobileService – Sample files

### 6.1 XSD files

#### 6.1.1 CS-Mobil-Types.xsd

```
<?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified">

  <xs:annotation>

    <xs:documentation xml:lang="en">All Types of JKDMOBIL

  </xs:documentation>

</xs:annotation>


<xs:complexType name="Mobil-PK-Type">

  <xs:sequence>

    <xs:element name="CELL_NO" type="xs:decimal"/>

    <xs:element name="CUSTOMER_NO" minOccurs="1">

      <xs:simpleType>

        <xs:restriction base="xs:string">

          <xs:maxLength value="9"/>

        </xs:restriction>

      </xs:simpleType>

    </xs:element>

  </xs:sequence>

</xs:complexType>


<xs:complexType name="Mobil-Full-Type">

  <xs:sequence>
```

```

<xs:element name="CUSTOMER_NO" minOccurs="1">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="9"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>

<xs:element name="CELL_NO" minOccurs="1" type="xs:decimal"/>

<xs:element name="MAKER" minOccurs="0">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="12"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>

<xs:element name="MAKERSTAMP" minOccurs="0">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="35"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>

<xs:element name="CHECKER" minOccurs="0">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="12"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>

<xs:element name="CHECKERSTAMP" minOccurs="0">

```

```

    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="35"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>

<xs:element name="MODNO" minOccurs="0" type="xs:decimal"/>

<xs:element name="TXNSTAT" minOccurs="0">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="1"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>

<xs:element name="AUTHSTAT" minOccurs="0">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="1"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>

<xs:element name="Jktm-Junk-Mobil-Dtl" minOccurs="0"
maxOccurs="unbounded">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="CUSTOMER_NO" minOccurs="1">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:maxLength value="9"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>
</xs:element>

```

```

        </xs:simpleType>
    </xs:element>
    <xs:element name="ACCOUNT_NO" minOccurs="0">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="20"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:element>
    <xs:element name="NAME" minOccurs="0">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="105"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:element>
    <xs:element name="TXNDETL" minOccurs="0">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="7"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:element>
    <xs:element name="STATUS" minOccurs="0">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="10"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:element>

```

```

        <xs:element name="CELL_NO" minOccurs="0" type="xs:decimal"/>

    </xs:sequence>

</xs:complexType>

</xs:element>

<xs:element name="Jktm-Junk-Mobile-Dtl2" minOccurs="0">

    <xs:complexType>

        <xs:sequence>

            <xs:element name="CUSTOMER_NO" minOccurs="1">

                <xs:simpleType>

                    <xs:restriction base="xs:string">

                        <xs:maxLength value="9"/>

                    </xs:restriction>

                </xs:simpleType>

            </xs:element>

            <xs:element name="CUSTOMER_NAME" minOccurs="0">

                <xs:simpleType>

                    <xs:restriction base="xs:string">

                        <xs:maxLength value="105"/>

                    </xs:restriction>

                </xs:simpleType>

            </xs:element>

            <xs:element name="CUSTOMER_CATEGORY" minOccurs="0">

                <xs:simpleType>

                    <xs:restriction base="xs:string">

                        <xs:maxLength value="10"/>

                    </xs:restriction>

                </xs:simpleType>

            </xs:element>

            <xs:element name="ADDRESS" minOccurs="0">

                <xs:simpleType>

```

```

        <xs:restriction base="xs:string">
            <xs:maxLength value="105"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>

<xs:element name="CITY" minOccurs="0">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="30"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>

<xs:element name="COUNTRY" minOccurs="0">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="25"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>

```

```

<xs:complexType name="Mobil-Query-IO-Type">
    <xs:sequence>
        <xs:element name="CUSTOMER_NO" minOccurs="1">
            <xs:simpleType>

```

```

        <xs:restriction base="xs:string">
            <xs:maxLength value="9"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>

    <xs:element name="CELL_NO" minOccurs="1" type="xs:decimal"/>
</xs:sequence>
</xs:complexType>

<xs:complexType name="Mobil-Create-IO-Type">
    <xs:sequence>
        <xs:element name="CUSTOMER_NO" minOccurs="1">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:maxLength value="9"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="CELL_NO" minOccurs="1" type="xs:decimal"/>
        <xs:element name="Jktm-Junk-Mobil-Dtl" minOccurs="0"
maxOccurs="unbounded">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="CUSTOMER_NO" minOccurs="1">
                        <xs:simpleType>
                            <xs:restriction base="xs:string">
                                <xs:maxLength value="9"/>
                            </xs:restriction>
                        </xs:simpleType>

```

```

</xs:element>

<xs:element name="ACCOUNT_NO" minOccurs="0">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="20"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

<xs:element name="NAME" minOccurs="0">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="105"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

<xs:element name="TXNDETL" minOccurs="0">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="7"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

<xs:element name="STATUS" minOccurs="0">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="10"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

<xs:element name="CELL_NO" minOccurs="0" type="xs:decimal"/>

```

```

        </xs:sequence>

    </xs:complexType>

</xs:element>

<xs:element name="Jktm-Junk-Mobile-Dtl2" minOccurs="0">

    <xs:complexType>

        <xs:sequence>

            <xs:element name="CUSTOMER_NO" minOccurs="1">

                <xs:simpleType>

                    <xs:restriction base="xs:string">

                        <xs:maxLength value="9"/>

                    </xs:restriction>

                </xs:simpleType>

            </xs:element>

            <xs:element name="CUSTOMER_NAME" minOccurs="0">

                <xs:simpleType>

                    <xs:restriction base="xs:string">

                        <xs:maxLength value="105"/>

                    </xs:restriction>

                </xs:simpleType>

            </xs:element>

            <xs:element name="CUSTOMER_CATEGORY" minOccurs="0">

                <xs:simpleType>

                    <xs:restriction base="xs:string">

                        <xs:maxLength value="10"/>

                    </xs:restriction>

                </xs:simpleType>

            </xs:element>

            <xs:element name="ADDRESS" minOccurs="0">

                <xs:simpleType>

                    <xs:restriction base="xs:string">

```

```

        <xs:maxLength value="105"/>

    </xs:restriction>

</xs:simpleType>

</xs:element>

<xs:element name="CITY" minOccurs="0">

    <xs:simpleType>

        <xs:restriction base="xs:string">

            <xs:maxLength value="30"/>

        </xs:restriction>

    </xs:simpleType>

</xs:element>

<xs:element name="COUNTRY" minOccurs="0">

    <xs:simpleType>

        <xs:restriction base="xs:string">

            <xs:maxLength value="25"/>

        </xs:restriction>

    </xs:simpleType>

</xs:element>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:sequence>

</xs:complexType>

```

```

<xs:complexType name="Mobil-Modify-IO-Type">

    <xs:sequence>

        <xs:element name="CUSTOMER_NO" minOccurs="1">

            <xs:simpleType>

                <xs:restriction base="xs:string">

```

```

        <xs:maxLength value="9"/>

    </xs:restriction>

</xs:simpleType>

</xs:element>

<xs:element name="CELL_NO" minOccurs="1" type="xs:decimal"/>

<xs:element name="MAKER" minOccurs="0">

    <xs:simpleType>

        <xs:restriction base="xs:string">

            <xs:maxLength value="12"/>

        </xs:restriction>

    </xs:simpleType>

</xs:element>

<xs:element name="MAKERSTAMP" minOccurs="0">

    <xs:simpleType>

        <xs:restriction base="xs:string">

            <xs:maxLength value="35"/>

        </xs:restriction>

    </xs:simpleType>

</xs:element>

</xs:sequence>

</xs:complexType>

```

```

<xs:complexType name="Mobil-Authorize-IO-Type">

    <xs:sequence>

        <xs:element name="CUSTOMER_NO" minOccurs="1">

            <xs:simpleType>

                <xs:restriction base="xs:string">

                    <xs:maxLength value="9"/>

                </xs:restriction>

```

```

        </xs:simpleType>

    </xs:element>

    <xs:element name="CELL_NO" minOccurs="1" type="xs:decimal"/>

    <xs:element name="CHECKER" minOccurs="0">

        <xs:simpleType>

            <xs:restriction base="xs:string">

                <xs:maxLength value="12"/>

            </xs:restriction>

        </xs:simpleType>

    </xs:element>

    <xs:element name="CHECKERSTAMP" minOccurs="0">

        <xs:simpleType>

            <xs:restriction base="xs:string">

                <xs:maxLength value="35"/>

            </xs:restriction>

        </xs:simpleType>

    </xs:element>

    <xs:element name="MODNO" minOccurs="0" type="xs:decimal"/>

</xs:sequence>

</xs:complexType>

</xs:schema>

```

### 6.1.2 CS-CreateMobil-Req-Full-MSG.xsd

```

<?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns="http://fcubs.ofss.com/service/FCMobileService"
  targetNamespace="http://fcubs.ofss.com/service/FCMobileService"
  elementFormDefault="qualified">

    <xs:include schemaLocation="IS-Messaging.xsd"/>

    <xs:include schemaLocation="CS-Mobil-Types.xsd"/>

    <xs:element name="CREATEMOBIL_FSFS_REQ">

        <xs:complexType>

```

```

<xs:sequence>

  <xs:element name="FCUBS_HEADER" type="FCUBS_HEADERTYPE"/>

  <xs:element name="FCUBS_BODY">

    <xs:complexType>

      <xs:sequence>

        <xs:annotation>

          <xs:documentation xml:lang="en">This XSD Gives
Information about Full Request

          </xs:documentation>

        </xs:annotation>

        <xs:element name="Jktm-Junk-Mobile-Full" type="Mobil-Full-
Type"/>

      </xs:sequence>

    </xs:complexType>

  </xs:element>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:schema>

```

### 6.1.3 CS-CreateMobil-Req-IO-MSG.xsd

```

<?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns="http://fcubs.ofss.com/service/FCMobileService"
targetNamespace="http://fcubs.ofss.com/service/FCMobileService"
elementFormDefault="qualified">

  <xs:include schemaLocation="IS-Messaging.xsd"/>

  <xs:include schemaLocation="CS-Mobil-Types.xsd"/>

  <xs:element name="CREATEMOBIL_IOPK_REQ">

    <xs:complexType>

      <xs:sequence>

        <xs:element name="FCUBS_HEADER" type="FCUBS_HEADERTYPE"/>

        <xs:element name="FCUBS_BODY">

```

```

        <xs:complexType>

            <xs:sequence>

                <xs:annotation>

                    <xs:documentation xml:lang="en">This XSD Gives
Information about IO Request

                    </xs:documentation>

                </xs:annotation>

                <xs:element name="Jktm-Junk-Mobile-IO" type="Mobil-Create-
IO-Type"/>

            </xs:sequence>

        </xs:complexType>

    </xs:element>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:schema>

```

#### 6.1.4 **CS-CreateMobil-Res-Full-MSG.xsd**

```

<?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns="http://fcubs.ofss.com/service/FCMobileService"
targetNamespace="http://fcubs.ofss.com/service/FCMobileService"
elementFormDefault="qualified">

    <xs:include schemaLocation="IS-Messaging.xsd"/>

    <xs:include schemaLocation="CS-Mobil-Types.xsd"/>

    <xs:element name="CREATEMOBIL_FSFS_RES">

        <xs:complexType>

            <xs:sequence>

                <xs:element name="FCUBS_HEADER" type="FCUBS_HEADERTYPE"/>

                <xs:element name="FCUBS_BODY">

                    <xs:complexType>

                        <xs:sequence>

                            <xs:annotation>

```

```

        <xs:documentation xml:lang="en">This XSD Gives
Information about Full Response

        </xs:documentation>

    </xs:annotation>

    <xs:element name="Jktm-Junk-Mobile-Full" type="Mobil-Full-
Type"/>

    <xs:element name="FCUBS_ERROR_RESP" type="ERRORType"
minOccurs="0" maxOccurs="unbounded"/>

    <xs:element name="FCUBS_WARNING_RESP" type="WARNINGType"
minOccurs="0" maxOccurs="unbounded"/>

    </xs:sequence>

</xs:complexType>

</xs:element>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:schema>

```

## 6.1.5 CS-CreateMobil-Res-PK-MSG.xsd

```

<?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns="http://fcubs.ofss.com/service/FCMobileService"
targetNamespace="http://fcubs.ofss.com/service/FCMobileService"
elementFormDefault="qualified">

    <xs:include schemaLocation="IS-Messaging.xsd"/>

    <xs:include schemaLocation="CS-Mobil-Types.xsd"/>

    <xs:element name="CREATEMOBIL_IOPK_RES">

        <xs:complexType>

            <xs:sequence>

                <xs:element name="FCUBS_HEADER" type="FCUBS_HEADERTYPE"/>

                <xs:element name="FCUBS_BODY">

                    <xs:complexType>

                        <xs:sequence>

```

```

        <xs:annotation>
            <xs:documentation xml:lang="en">This XSD Gives
Information about PK Response
        </xs:documentation>
    </xs:annotation>

    <xs:choice>
        <xs:element name="Jktm-Junk-Mobile-PK" type="Mobil-PK-
Type"/>
        <xs:element name="Jktm-Junk-Mobile-IO" type="Mobil-
Create-IO-Type"/>
    </xs:choice>

    <xs:element name="FCUBS_ERROR_RESP" type="ERRORType"
minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="FCUBS_WARNING_RESP" type="WARNINGType"
minOccurs="0" maxOccurs="unbounded"/>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>

```

## 6.2 WSDL file

### 6.2.1 FCMobileService.wsdl

```

<?xml version= "1.0" encoding="UTF-8"?>

<wsdl:definitions name="FCMobileService"

targetNamespace = "http://types.ws.gw.fcubs.ofss.com"

xmlns:tns = "http://types.ws.gw.fcubs.ofss.com"

xmlns:wsdlsoap = "http://schemas.xmlsoap.org/wsdl/soap/"

xmlns:wsdl = "http://schemas.xmlsoap.org/wsdl/"

xmlns:xs = "http://www.w3.org/2001/XMLSchema"

```

```

xmlns="http://schemas.xmlsoap.org/wsdl/"

xmlns:ns="http://fcubs.ofss.com/service/FCMobileService">

<wsdl:types>

  <xs:schema>

    <xs:import namespace="http://fcubs.ofss.com/service/FCMobileService"

      schemaLocation="../../../XSD/CS-CreateMobil-Req-Full-MSG.xsd"/>

  </xs:schema>

  <xs:schema>

    <xs:import namespace="http://fcubs.ofss.com/service/FCMobileService"

      schemaLocation="../../../XSD/CS-CreateMobil-Res-Full-MSG.xsd"/>

  </xs:schema>

  <xs:schema>

    <xs:import namespace="http://fcubs.ofss.com/service/FCMobileService"

      schemaLocation="../../../XSD/CS-CreateMobil-Req-IO-MSG.xsd"/>

  </xs:schema>

  <xs:schema>

    <xs:import namespace="http://fcubs.ofss.com/service/FCMobileService"

      schemaLocation="../../../XSD/CS-CreateMobil-Res-PK-MSG.xsd"/>

  </xs:schema>

</wsdl:types>

<wsdl:message name="CreateMobileFSReq">

  <wsdl:part name="RequestMsg" element="ns:CREATEMOBILE_FSFS_REQ"/>

</wsdl:message>

<wsdl:message name="CreateMobileFSRes">

  <wsdl:part name="ResponseMsg" element="ns:CREATEMOBILE_FSFS_RES"/>

</wsdl:message>

```

```

<wsdl:message name="CreateMobileIOReq">
    <wsdl:part name="RequestMsg" element="ns:CREATEMOBILE_IOPK_REQ"/>
</wsdl:message>

<wsdl:message name="CreateMobilePKRes">
    <wsdl:part name="ResponseMsg" element="ns:CREATEMOBILE_IOPK_RES"/>
</wsdl:message>

<wsdl:portType name="FCMobileServiceSEI" >
    <wsdl:operation name="CreateMobileIO">
        <wsdl:input message="tns:CreateMobileIOReq"/>
        <wsdl:output message="tns:CreateMobilePKRes"/>
    </wsdl:operation>

    <wsdl:operation name="CreateMobileFS">
        <wsdl:input message="tns:CreateMobileFSReq"/>
        <wsdl:output message="tns:CreateMobileFSRes"/>
    </wsdl:operation>

</wsdl:portType>

<wsdl:binding name="FCMobileService" type="tns:FCMobileServiceSEI">
    <wsdlsoap:binding style="document"
transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="CreateMobileFS">
        <wsdlsoap:operation soapAction=""/>
        <wsdl:input>
            <wsdlsoap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>

```

```

        <wsdlsoap:body use="literal"/>

    </wsdl:output>

</wsdl:operation>

<wsdl:operation name="CreateMobileIO">
    <wsdlsoap:operation soapAction=""/>

    <wsdl:input>

        <wsdlsoap:body use="literal"/>

    </wsdl:input>

    <wsdl:output>

        <wsdlsoap:body use="literal"/>

    </wsdl:output>

</wsdl:operation>

</wsdl:binding>

<wsdl:service name="FCMobileService">

    <wsdl:port name="FCMobileServiceSEI" binding="tns:FCMobileService">

        <wsdlsoap:address
location="http://localhost:9080/FCMobileService/services/FCMobileService"/>

    </wsdl:port>

</wsdl:service></wsdl:definitions>

```

## 6.3 Implementation Java files

### 6.3.1 FCMobileServiceImpl.java

```

/*
 * Class Name: FCMobileServiceImpl
 *
 * Date:      July 11, 2006 1:09:20 PM

```

\*

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\* India

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```
package com.ofss.fcubs.gw.ws.types;
```

```
import com.iflex.fcubs.gwservices.ejb.GWEJBClient;
```

```
import com.iflex.fcubs.gwutil.GWGenUtils;
```

```
import com.iflex.fcubs.gwutil.GWProperties;
```

```
import com.iflex.fcubs.gwutil.GWPropertiesConstants;
```

```
import com.iflex.fcubs.gwutil.GWPropertiesUtil;
```

```
import com.iflex.fcubs.gwutil.logging.GWLogger;
```

```
import com.iflex.fcubs.gwutil.logging.GWLoggerProperties;
```

```
import com.iflex.fcubs.gwutil.xml.GWXMLUtils;
```

```
import com.iflex.fcubs.gwutil.JAXBContextFactory;
```

```
import javax.xml.bind.JAXBContext;
```

```
import javax.xml.bind.JAXBException;
```

```

import javax.xml.bind.Marshaller;

import javax.xml.bind.Unmarshaller;


import java.io.ByteArrayInputStream;
import java.io.ByteArrayOutputStream;


import javax.annotation.PostConstruct;
import javax.annotation.PreDestroy;


import javax.jws.WebService;
import javax.xml.ws.BindingType;


@WebService(
    portName="FCMobileServiceSEI",
    serviceName="FCMobileService",
    targetNamespace="http://types.ws.gw.fcubs.ofss.com",
    endpointInterface="com.ofss.fcubs.gw.ws.types.FCMobileServiceSEI")
@BindingType("http://schemas.xmlsoap.org/wsdl/soap/http")


public class FCMobileServiceImpl implements FCMobileServiceSEI
{

    //===== CLASS VARIABLES =====

    private final String g_className = "FCMobileServiceImpl";
    private final String g_serviceName = "FCMobileService";
    private String EJB_CALL_TYPE = "LOCAL";
    private String g_operationName = null;
    private GWProperties g_GWProperties = null;
    private GWLoggerProperties g_GWLoggerProp = null;

```

```

private JAXBContext context = null;

//===== INITIALIZE METHODS =====

@PostConstruct

public void init()

{

    try{

        initializeComp();

    }

    catch(Exception ex){

        ex.printStackTrace();

    }

}

@PreDestroy

public void destroy() {

    g_GWProperties = null;

    g_GWLoggerProp = null;

}

public void initializeComp() throws Exception {

    String l_confp = GWPropertiesUtil.getGWPropPath() +
GWPropertiesConstants.GW_WS_PROP_FILENAME;

    g_GWProperties = new GWProperties(l_confp);

    String loggerPath =
g_GWProperties.getProperty(GWPropertiesConstants.LOGGER_PATH);

    g_GWLoggerProp = new GWLoggerProperties(loggerPath);

    EJB_CALL_TYPE =
g_GWProperties.getProperty(GWPropertiesConstants.EJB_CALL_TYPE,GWPropertiesCons
tants.EJB_LOCAL_CALL);

}

```

```

public CREATEMOBILEFSFSRES createMobileFS(CREATEMOBILEFSFSREQ requestMsg)
{
    g_operationName = "CreateMobile";

    String l_methodName = "createMobileFS(CREATEMOBILEFSFSREQ requestMsg)";

    CREATEMOBILEFSFSRES responseMsg = null;

    String l_req_msg = null;

    String l_resp_msg = null;

    GWLogger g_gwLog = null;

    try {

        if(g_gwLog == null)
        {
            g_gwLog = new GWLogger (
g_GWLoggerProp,GWPropertiesConstants.WS_GATEWAY + "_");
        }

        g_gwLog.println (g_className,l_methodName, " - ---START - ---");

        //Marshalling Request Object to XML

        context =
JAXBContextFactory.getInstance().getContext("com.ofss.fcubs.gw.ws.types");

        Marshaller marsh = context.createMarshaller();

        marsh.setProperty(Marshaller.JAXB_FORMATTED_OUTPUT, true);

        ByteArrayOutputStream output = new ByteArrayOutputStream();

        marsh.marshal(requestMsg, output);

        l_req_msg = output.toString("utf-8");

        g_gwLog.println (g_className,l_methodName,"Request XML Message:
\n" + l_req_msg + "\n");

        l_resp_msg = callEJB(l_req_msg, g_gwLog);

        g_gwLog.println (g_className,l_methodName,"Response XML Message:
\n" + l_resp_msg + "\n");
    }
}

```

```

        //Unmarshalling Response XML to Object

        ByteArrayInputStream input = new ByteArrayInputStream
(l_resp_msg.getBytes());

        Unmarshaller unmarsh = context.createUnmarshaller();

        responseMsg = (CREATEMOBILEFSFSRES)unmarsh.unmarshal(input);

        g_gwLog.println (g_className,l_methodName, "----END----");

    }

    catch (JAXBException e) {

        System.out.println("JAXBException: " + e.getMessage());

        e.printStackTrace();

    }

    catch(Exception ex) {

        g_gwLog.printStackTrace (g_className, l_methodName, ex);

    }

    finally {

        flushLogger(g_gwLog);

    }

    return responseMsg;

}

public CREATEMOBILEIOPKRES createMobileIO(CREATEMOBILEIOPKREQ requestMsg)

{

    g_operationName = "CreateMobile";

    String l_methodName = "createMobileIO(CREATEMOBILEIOPKREQ requestMsg)";

    CREATEMOBILEIOPKRES responseMsg = null;

    String l_req_msg = null;

```

```

String l_resp_msg = null;

GWLogger g_gwLog = null;

    try {

        if(g_gwLog == null)

        {

            g_gwLog = new GWLogger (
g_GWLoggerProp,GWPropertiesConstants.WS_GATEWAY + "_");

        }

        g_gwLog.println (g_className,l_methodName, " - ---START - ---");

        //Marshalling Request Object to XML

        context =
JAXBContextFactory.getInstance().getContext("com.ofss.fcubs.gw.ws.types");

        Marshaller marsh = context.createMarshaller();

        marsh.setProperty(Marshaller.JAXB_FORMATTED_OUTPUT, true);

        ByteArrayOutputStream output = new ByteArrayOutputStream();

        marsh.marshal(requestMsg, output);

        l_req_msg = output.toString("utf-8");

        g_gwLog.println (g_className,l_methodName,"Request XML Message:
\n" + l_req_msg + "\n");

        l_resp_msg = callEJB(l_req_msg, g_gwLog);

        g_gwLog.println (g_className,l_methodName,"Response XML Message:
\n" + l_resp_msg + "\n");

        //Unmarshalling Response XML to Object

        ByteArrayInputStream input = new ByteArrayInputStream
(l_resp_msg.getBytes());

        Unmarshaller unmarsh = context.createUnmarshaller();

        responseMsg = (CREATEMOBILEIOPKRES)unmarsh.unmarshal(input);

        g_gwLog.println (g_className,l_methodName, "----END----");

```

```

    }

    catch (JAXBException e) {

        System.out.println("JAXBException: " + e.getMessage());

        e.printStackTrace();

    }

    catch(Exception ex) {

        g_gwLog.printStackTrace (g_className, l_methodName, ex);

    }

    finally {

        flushLogger(g_gwLog);

    }

    return responseMsg;

}

private String callEJB(String p_reqMsg, GWLogger g_gwLog) throws Exception
{

    String l_methodName = "callEJB(String p_reqMsg,String g_gwLog)";

    String l_reqMsg = p_reqMsg;

    String l_respMsg = null;

    String l_replNS = "xmlns=\"http://fcubs.ofss.com/service/" + g_serviceName
+ "\"";

    g_gwLog.println (g_className,l_methodName,"----START----");

    String l_reqMsg_rootElement = GWGenUtils.getRootElement(l_reqMsg);

    String l_respMsg_rootElement =
l_reqMsg_rootElement.replaceAll("_REQ","_RES");

    String l_controlMetaData = " <FCUBS_CONTROL_METADATA> " +

```

```

        "\n\t<COMM_DET> " +

        "\n\t\t<GATEWAY>" +
GWPropertiesConstants.WS_GATEWAY + "</GATEWAY>" +

        "\n\t</COMM_DET>" +

        "\n\t<MSG_PROC_DET> " +

        "\n\t\t<SERVICE>" + g_serviceName +

"</SERVICE>" +

        "\n\t\t<OPERATION>" + g_operationName +

"</OPERATION>" +

        "\n\t</MSG_PROC_DET>" +

        "\n</FCUBS_CONTROL_METADATA>";

    g_gwLog.println (g_className, l_methodName, "l_controlMetaData = \n" +
l_controlMetaData + "\n");

    GWEJBClient l_GWEJBClient = new GWEJBClient(g_GWProperties);

    if ((GWPropertiesConstants.EJB_LOCAL_CALL).equals(EJB_CALL_TYPE)) {

        g_gwLog.println (g_className, l_methodName, "Calling
GWEJBClient.callLocalEJB");

        l_respMsg = l_GWEJBClient.callLocalEJB(l_reqMsg, l_controlMetaData);

        g_gwLog.println (g_className, l_methodName, "After calling
GWEJBClient.callLocalEJB");

    }

    else if ((GWPropertiesConstants.EJB_REMOTE_CALL).equals(EJB_CALL_TYPE)) {

        g_gwLog.println (g_className, l_methodName, "Calling
GWEJBClient.callRemoteEJB");

        l_respMsg = l_GWEJBClient.callRemoteEJB(l_reqMsg, l_controlMetaData);

        g_gwLog.println (g_className, l_methodName, "After calling
GWEJBClient.callRemoteEJB");

    }

    g_gwLog.println (g_className, l_methodName, "Response message from EJB: \n" +
l_respMsg + "\n");

```

```

        g_gwLog.println (g_className,l_methodName,"Calling GWGenUtils.replace");

        if( l_respMsg.indexOf("<" + l_respMsg_rootElement) != -1) {

            l_respMsg = GWGenUtils.replace(l_respMsg, "<" + l_respMsg_rootElement,
">", "<" + l_respMsg_rootElement + "\t" + l_replNS , false);

        }

        else {

            String l_errMsg = "Correct root tag (<" + l_respMsg_rootElement + ">) "+"
missing in the Request Message";

            g_gwLog.println (g_className, l_methodName, l_errMsg + ":" +
l_respMsg);

            throw new Exception(l_errMsg);

        }

        g_gwLog.println (g_className, l_methodName, "----After Calling
GWGenUtils.replace----");


        g_gwLog.println (g_className, l_methodName, "Response message to be sent:
\n" + l_respMsg + "\n");

        g_gwLog.println (g_className, l_methodName, "-----END-----");

        return l_respMsg;
    }

    private void flushLogger(GWLogger g_gwLog)
    {
        if (g_gwLog != null)
        {
            g_gwLog.flushLogger ();

            g_gwLog = null;
        }
    }
}

```

## 6.4 Gateway static data from Open Development

### 6.4.1 GWTB\_AMEND\_FIELDS JKDMOBIL.INC

```
DELETE GWTB_AMEND_FIELDS A WHERE A.RAD_FUNCTION_ID = 'JKDMOBIL' ;

INSERT INTO
GWTB_AMEND_FIELDS (NODE_NAME, FIELD_NAME, SERVICE_NAME, OPERATION_CODE, RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE', 'MAKER_ID', NULL, 'JKDMOBIL_MODIFY', 'JKDMOBIL');

INSERT INTO
GWTB_AMEND_FIELDS (NODE_NAME, FIELD_NAME, SERVICE_NAME, OPERATION_CODE, RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE', 'MAKER_DT_STAMP', NULL, 'JKDMOBIL_MODIFY', 'JKDMOBIL');

COMMIT;
```

### 6.4.2 GWTB\_AMEND\_NODES JKDMOBIL.INC

```
DELETE GWTB_AMEND_NODES A WHERE A.RAD_FUNCTION_ID = 'JKDMOBIL' ;

INSERT INTO
GWTB_AMEND_NODES (NODE_NAME, NEW_ALLOWED, DELETE_ALLOWED, ALL_RECORDS, SERVICE_NAME,
, OPERATION_CODE, RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE', 'N', 'N', 'Y', NULL, 'JKDMOBIL_EXECUTEQUERY', 'JKDMOBIL')
;

INSERT INTO
GWTB_AMEND_NODES (NODE_NAME, NEW_ALLOWED, DELETE_ALLOWED, ALL_RECORDS, SERVICE_NAME,
, OPERATION_CODE, RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE_DTL', 'N', 'N', 'Y', NULL, 'JKDMOBIL_EXECUTEQUERY', 'JKDMOBIL')
;

INSERT INTO
GWTB_AMEND_NODES (NODE_NAME, NEW_ALLOWED, DELETE_ALLOWED, ALL_RECORDS, SERVICE_NAME,
, OPERATION_CODE, RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE_DTL2', 'N', 'N', 'Y', NULL, 'JKDMOBIL_EXECUTEQUERY', 'JKDMOBIL')
;

INSERT INTO
GWTB_AMEND_NODES (NODE_NAME, NEW_ALLOWED, DELETE_ALLOWED, ALL_RECORDS, SERVICE_NAME,
, OPERATION_CODE, RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE', 'N', 'N', 'Y', NULL, 'JKDMOBIL_NEW', 'JKDMOBIL');

INSERT INTO
GWTB_AMEND_NODES (NODE_NAME, NEW_ALLOWED, DELETE_ALLOWED, ALL_RECORDS, SERVICE_NAME,
, OPERATION_CODE, RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE_DTL', 'N', 'N', 'Y', NULL, 'JKDMOBIL_NEW', 'JKDMOBIL');

INSERT INTO
GWTB_AMEND_NODES (NODE_NAME, NEW_ALLOWED, DELETE_ALLOWED, ALL_RECORDS, SERVICE_NAME,
, OPERATION_CODE, RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE_DTL2', 'N', 'N', 'Y', NULL, 'JKDMOBIL_NEW', 'JKDMOBIL');
```

```

INSERT INTO
GWTB_AMEND_NODES (NODE_NAME,NEW_ALLOWED,DELETE_ALLOWED,ALL_RECORDS,SERVICE_NAME
,OPERATION_CODE,RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE','N','N','Y',NULL,'JKDMOBIL_MODIFY','JKDMOBIL');

INSERT INTO
GWTB_AMEND_NODES (NODE_NAME,NEW_ALLOWED,DELETE_ALLOWED,ALL_RECORDS,SERVICE_NAME
,OPERATION_CODE,RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE_DTL','N','N','Y',NULL,'JKDMOBIL_MODIFY','JKDMOBIL');

INSERT INTO
GWTB_AMEND_NODES (NODE_NAME,NEW_ALLOWED,DELETE_ALLOWED,ALL_RECORDS,SERVICE_NAME
,OPERATION_CODE,RAD_FUNCTION_ID)
VALUES ('JKTM_JUNK_MOBILE_DTL2','N','N','Y',NULL,'JKDMOBIL_MODIFY','JKDMOBIL');

COMMIT;

```

### 6.4.3 GWTM AMEND FIELDS JKDMOBIL.INC

```

DELETE GWTM_AMEND_FIELDS A WHERE A.EXT_SYSTEM = 'FLEXCUBE' AND
RAD_FUNCTION_ID = 'JKDMOBIL' ;

INSERT INTO
GWTM_AMEND_FIELDS (EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,FIELD_NAME,RAD_FUNCTION
_ID)
VALUES ('FLEXCUBE','JKDMOBIL_MODIFY','JKTM_JUNK_MOBILE','MAKER_ID','JKDMOBIL');

INSERT INTO
GWTM_AMEND_FIELDS (EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,FIELD_NAME,RAD_FUNCTION
_ID)
VALUES ('FLEXCUBE','JKDMOBIL_MODIFY','JKTM_JUNK_MOBILE','MAKER_DT_STAMP','JKDMO
BIL');

COMMIT;

```

### 6.4.4 GWTM AMEND MASTER JKDMOBIL.INC

```

DELETE GWTM_AMEND_MASTER A WHERE A.EXT_SYSTEM = 'FLEXCUBE' AND
RAD_FUNCTION_ID = 'JKDMOBIL' ;

INSERT INTO
GWTM_AMEND_MASTER (EXT_SYSTEM,SOURCE_OPERATION,SERVICE_NAME,OPERATION_CODE,MAKE
R_ID,CHECKER_ID,MAKER_DT_STAMP,CHECKER_DT_STAMP,ONCE_AUTH,AUTH_STAT,RECORD_STA
T,MOD_NO,RAD_FUNCTION_ID)
VALUES ('FLEXCUBE','JKDMOBIL_EXECUTEQUERY',NULL,'JKDMOBIL_EXECUTEQUERY','RADTOO
L','RADTOOL',TO_DATE('18-MAR-2011','DD-MON-RRRR'),TO_DATE('18-MAR-2011','DD-
MON-RRRR'),'Y','A','O',1,'JKDMOBIL');

INSERT INTO
GWTM_AMEND_MASTER (EXT_SYSTEM,SOURCE_OPERATION,SERVICE_NAME,OPERATION_CODE,MAKE
R_ID,CHECKER_ID,MAKER_DT_STAMP,CHECKER_DT_STAMP,ONCE_AUTH,AUTH_STAT,RECORD_STA
T,MOD_NO,RAD_FUNCTION_ID)
VALUES ('FLEXCUBE','JKDMOBIL_NEW',NULL,'JKDMOBIL_NEW','RADTOOL','RADTOOL',TO_DA
TE('18-MAR-2011','DD-MON-RRRR'),TO_DATE('18-MAR-2011','DD-MON-
RRRR'),'Y','A','O',1,'JKDMOBIL');

```

```

INSERT INTO
GWTM_AMEND_MASTER(EXT_SYSTEM,SOURCE_OPERATION,SERVICE_NAME,OPERATION_CODE,MAKE
R_ID,CHECKER_ID,MAKER_DT_STAMP,CHECKER_DT_STAMP,ONCE_AUTH,AUTH_STAT,RECORD_STA
T,MOD_NO,RAD_FUNCTION_ID)
VALUES('FLEXCUBE','JKDMOBIL_MODIFY',NULL,'JKDMOBIL_MODIFY','RADTOOL','RADTOOL'
,TO_DATE('18-MAR-2011','DD-MON-RRRR'),TO_DATE('18-MAR-2011','DD-MON-
RRRR'),'Y','A','O',1,'JKDMOBIL');

COMMIT;

```

## 6.4.5 GWTM AMEND NODES JKDMOBIL.INC

```

DELETE GWTM_AMEND_NODES A WHERE A.EXT_SYSTEM = 'FLEXCUBE' AND RAD_FUNCTION_ID
= 'JKDMOBIL' ;

```

```

INSERT INTO
GWTM_AMEND_NODES(EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,NEW_ALLOWED,DELETE_ALLO
WED,ALL_RECORDS,RAD_FUNCTION_ID)
VALUES('FLEXCUBE','JKDMOBIL_EXECUTEQUERY','JKTM_JUNK_MOBILE','N','N','Y','JKDM
OBIL');

```

```

INSERT INTO
GWTM_AMEND_NODES(EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,NEW_ALLOWED,DELETE_ALLO
WED,ALL_RECORDS,RAD_FUNCTION_ID)
VALUES('FLEXCUBE','JKDMOBIL_EXECUTEQUERY','JKTM_JUNK_MOBILE_DTL','N','N','Y','
JKDMOBIL');

```

```

INSERT INTO
GWTM_AMEND_NODES(EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,NEW_ALLOWED,DELETE_ALLO
WED,ALL_RECORDS,RAD_FUNCTION_ID)
VALUES('FLEXCUBE','JKDMOBIL_EXECUTEQUERY','JKTM_JUNK_MOBILE_DTL2','N','N','Y',
'JKDMOBIL');

```

```

INSERT INTO
GWTM_AMEND_NODES(EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,NEW_ALLOWED,DELETE_ALLO
WED,ALL_RECORDS,RAD_FUNCTION_ID)
VALUES('FLEXCUBE','JKDMOBIL_NEW','JKTM_JUNK_MOBILE','N','N','Y','JKDMOBIL');

```

```

INSERT INTO
GWTM_AMEND_NODES(EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,NEW_ALLOWED,DELETE_ALLO
WED,ALL_RECORDS,RAD_FUNCTION_ID)
VALUES('FLEXCUBE','JKDMOBIL_NEW','JKTM_JUNK_MOBILE_DTL','N','N','Y','JKDMOBIL'
);

```

```

INSERT INTO
GWTM_AMEND_NODES(EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,NEW_ALLOWED,DELETE_ALLO
WED,ALL_RECORDS,RAD_FUNCTION_ID)
VALUES('FLEXCUBE','JKDMOBIL_NEW','JKTM_JUNK_MOBILE_DTL2','N','N','Y','JKDMOBIL
');

```

```

INSERT INTO
GWTM_AMEND_NODES(EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,NEW_ALLOWED,DELETE_ALLO
WED,ALL_RECORDS,RAD_FUNCTION_ID)
VALUES('FLEXCUBE','JKDMOBIL_MODIFY','JKTM_JUNK_MOBILE','N','N','Y','JKDMOBIL')
;

```

```

INSERT INTO
GWTM_AMEND_NODES(EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,NEW_ALLOWED,DELETE_ALLO
WED,ALL_RECORDS,RAD_FUNCTION_ID)
VALUES('FLEXCUBE','JKDMOBIL_MODIFY','JKTM_JUNK_MOBILE_DTL','N','N','Y','JKDMOB
IL');

```

```
INSERT INTO
GWTM_AMEND_NODES(EXT_SYSTEM,SOURCE_OPERATION,NODE_NAME,NEW_ALLOWED,DELETE_ALLO
WED,ALL_RECORDS,RAD_FUNCTION_ID)
VALUES('FLEXCUBE','JKDMOBIL_MODIFY','JKTM_JUNK_MOBILE_DTL2','N','N','Y','JKDMO
BIL');

COMMIT;
```



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