WebServices Installation Guide Oracle Financial Services Lending and Leasing

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1. Preface

This document contains notes and installation steps needed to install WebServices. Oracle Financial Services Lending and Leasing relies on several pieces of Oracle software in order to run and this document is in no way meant to replace Oracle documentation supplied with the WebServices product or available via Oracle technical support. The purpose of this document is only meant to supplement the Oracle documentation and to provide Oracle Financial Services Lending and Leasing specific installation instructions.

For recommendations on security configuration, refer Security Configuration Guide.

It is assumed that anyone installing Oracle Financial Services Lending and Leasing will have a thorough knowledge and understanding of WebServices.

This guide covers the following processes.

- Installing WebServices Database Objects
- Configuring RESTful WebService

1.1 Prerequisites

- Download and Install the Oracle Fusion Middleware 12c Version 12.2.1.3.0 (Fusion Middleware Infrastructure installer) from <u>http://www.oracle.com/technetwork/middleware/ fusion-middleware/downloads/index.html#close</u>. They are also available from the following sources:
 - Oracle Software Delivery Cloud (http://edelivery.oracle.com/)
- Oracle Technology Network (OTN)
- 2. It is assumed that the Oracle Financial Services Lending and Leasing DB is installed and configured, before running the WebServices installer.

1.2 <u>Audience</u>

This document is intended for system administrators or application developers who are installing Oracle Financial Services Lending and Leasing Application.

1.3 <u>Conventions Used</u>

Term	Refers to
Application	Oracle Financial Services Lending and Leasing



2. Installing WebServices Database Objects

Download and unzip the WebServices database (ofsllxwsdb.zip) to a staging folder.

Run \$./installofsllxwsdb.sh

```
-bash-4.1$ ./installofsllxwsdb.sh
```

This installer adds the required tables and packages to the apllication database.

Enter 'y' when prompted to continue.

Oracle Financial Services Lending and Leasing Webservices DB Installer

Script Prompts	Description and Action Required
Oracle Financial Services Lending and Leasing Home Path	Enter the path to the home directory. This is referred to as \$OFSLL_HOME. Enter 'y' when prompted for.



Oracle Financial Services Lending and Leasing Webservices DB Installer

Important Note: It is expected to have the OFSLL Application DB been installed and configured before running this installer. This installer adds the required tables and packages to the same OFSLL DB schema. Continue? [y/n]: y Enter the Oracle Financial Services Lending and Leasing Home Path? (usually /home/ofsll): /scratch/work_area/DEV/OFSLLREL OFSLLHOME=/scratch/work_area/DEV/OFSLLREL Okay? [y/n]: y Enter the Oracle DB Home Path? /scratch/app/db12c/product/12.1.0/dbhome_1 ORAHOME=/scratch/app/db12c/product/12.1.0/dbhome_1 Okay? [y/n]: y Enter the Oracle SID? ORCL INSTANCENAME=ORCL Okay? [y/n]: y

Script Prompts	Description and Action Required
Oracle DB Home Path	Enter the path to the Oracle DB home directory. This is referred to as \$ORACLE_HOME. Enter 'y' when prompted for.
Oracle SID	Enter the Name of Oracle Instance. Enter 'y' when prompted for.

Important Note:

Here is a list of CRITICAL environment variables and their settings:

PATH=/usr/lib64/qt-3.3/bin:/usr/kerberos/sbin:/usr/kerberos/bin:/usr/bin:/usr/dev_infra/platform/bin:/usr/dev_infra/generic/bin: 11R6/bin:/usr/local/ade/bin:/scratch/app/dbl2c/product/12.1.0/dbhome_1/bin ORACLE_HOME=/scratch/app/dbl2c/product/12.1.0/dbhome_1 ORACLE_SID=ORCL OFSLL_MOME=/scratch/work_area/DEV/OFSLLREL

With the above environment, you should be able start SQLPlus and connect to the database. If you cannot, correct the environment and restart the script to continue.

Continue? [y/n]: y



The script lists and sets the CRITICAL environment variables

..... Oracle Financial Services Lending and Leasing Webservices Database Object Installation

The following items are available for installation:

1.	database	types		(512)
2.	database	tables		(47)
3.	database	views		(295)
4.	database	trigger		(4)
5.	database	package	specs	(412)
6.	database	package	bodies	(420)
7.	database	indexes		(30)
8.	System Se	eed Data		(0)

Continue with Installation? [y/n] :

Enter 'y' when prompted to continue. A list of items available for installation are listed. Enter 'y' when prompted to 'Continue with Installation'.

Oracle Financial Services Lending and Leasing Webservices Database Object Installation

The following items are available for installation:

1.	database types	(173)
2.	database tables	(47)
3.	database views	(157)
4.	database trigger	(4)
5.	database package specs	(254)
6.	database package bodies	(262)
7.	database indexes	(30)
8.	System Seed Data	(0)
Continue with Installatio	m? [y/n] : y	
Log files will be located Press Enter to Continue	in /scratch/work_area/D	EV/OFSLLREL/logs/ofsll_xws_install_logs
Enter the Oracle userid (objects? (usually ofsllpr	schema name) that will or d): OFSLLREL	wn the Oracle Financial Services Lending and Leasing
Enter the password for th	is userid:	

Sets the path for the location of log files. Press 'Enter' to continue.

Script Prompts	Description and Action Required
Oracle User ID that will own the Oracle Financial Services Lending and Leasing objects	Valid User ID
Password for this User ID	Valid Password



The script installs the objects.

PL/SQL procedure successfully completed.
Commit complete.
Recompiling Invalid Objects...
Oracle Financial Services Lending and Leasing Webservices DB Object Installation Com

While installing, the script recompiles the invalid objects and completes the installation of DB objects.



3. Configuring RESTful WebService

Follow the below steps to configure RESTful WebService.

- Create Data Sources for RESTful WebService
- OAuth Implementation
- Deploy RESTful WebService

3.1 Create Data Sources for RESTful WebService

1. Login to Oracle Weblogic 12c console (http://hostname:port/console).

ORACLE WebLogic Server Administration	1 Console 12c
12^{c}	Welcome Log in to work with the WebLogic Server domain Username: Password: Login
WebLogic Server Version: 12.2.1.1.3.0 Copyright (c) 1996.2017, Oracle and/or its affiliates. All rights reserved. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademark	s of their respective owners.

2. On successful login, the following window is displayed.

Change Center	Home Log Out Preferences	Record Help	<u>.</u>			
View changes and restarts		Welcor	ne, weblogic Connected to: OFSLLREL_dom			
Click the Lock & Edit button to modify, add or	Home					
delete items in this domain.	Home Page					
Lock & Edit	- Information and Resources					
Release Configuration	Information and Resources					
	Helpful Tools	General Information				
Jomain Structure	Configure applications Common Administration Task Descriptions					
+SLLREL_domain	 Configure GridLink for RAC Data Source 	Configure GridLink for RAC Data Read the documentation Source				
Denvironment	Configure a Dynamic Cluster	Source Ask a question on My Oracle Support				
Deployments	Recent Task Status					
Security Realms	 Set your console preferences 					
1 Interoperability	Oracle Enterprise Manager					
Diagnostics						
	- Domain Configurations					
	Domain	Resource Group Templates	Interoperability			
	Domain	Resource Group Templates	WTC Servers			
	The second		Jolt Connection Pools			
tow do I	Domain Partitions	Resource Groups				
100 00 1	Domain Partitions	Resource Groups	Diagnostics			
 Search the configuration 	Partition Work Managers		Log Files			
Use the Change Center	E Contraction of the second se	Deployed Resources	Diagnostic Modules			
Record WLST scripts	Environment	 Deployments 	 Built-in Diagnostic Modules 			
Change Console preferences	Servers		Diagnostic Images			
Manage Console extensions	Clusters	Services	Request Performance			
 Monitor servers 	Server Templates	Messaging	Archives			
	Migratable Targets	JMS Servers	Context			
ystem Status	Coherence Clusters	 Store-and-Forward Agents 	SNMP Intercenter			
lealth of Running Servers as of 11:23 AM	Machines	 JMS Modules 	 interceptors 			
Failed (0)	VIFUAI HOSTS	Path Services	Charts and Graphs			
Critical (0)	Virtual Targets	Bridges	citarts and oraphis			



3. Click Domain Name > Services > Data Sources. The following window is displayed.

Change Center	1 Home Log	Out Preference	s 🚵 Re	cord Help			
View changes and restarts				v	Nelcome, weblogic Connected to: OFSLLREL_doma		
Click the Lock & Edit button to modify, add or	Home >Summary of JDBC Data Sources						
delete items in this domain.	Summary of JDBC Data Sources						
Lock & Edit	Configuration Monitoring						
Release Configuration							
omain Structure	A JDBC data	source is an obje	ect bound	to the JNDI tree that provides	database connectivity through a pool of JDBC		
FSLLREL domain	connections.	Applications can	look up a	data source on the JNDI tree a	and then borrow a database connection from a data		
Domain Partitions	source.						
Environment	This page su	immarizes the JDI	BC data se	ource objects that have been cr	reated in this domain.		
Deployments							
Services							
tt Messaging		this table					
Data Sources	Data Sources (Filtered - More Columns Exist)						
Persistent Stores	Para bources (rinkereu - Hore Countins Exas).						
Englige INDI Browidary	WHEN DOWNLOW COMPANY	Lo e ball in	and the second second	Contraction of the second s	and a second		
Foreign JNDI Providers	Click the Loc	k & Edit button i	in the Cha	inge Center to activate all the b	outtons on this page.		
Foreign JNDI Providers Work Contexts XML Registries	Click the Loc	k & Edit button i	in the Cha	inge Center to activate all the b	outtons on this page.		
Foreign JNDI Providers Work Contexts XML Registries XML Entity Caches	Click the Loc	o k & Edit button i Delete	in the Cha	inge Center to activate all the b	suttons on this page. Showing 1 to 9 of 9 Previous Next		
Foreign JNDI Providers Work Contexts XML Registries XML Entity Caches jCOM	Click the Loc New - E	<i>k & Edit</i> button i Delete	in the Cha	INDI Name	suttons on this page. Showing 1 to 9 of 9 Previous Next		
Foreign JNDI Providers Work Contexts XML Registries XML Entity Caches Mail Sections	Click the Loc New - [] Name	ek & Edit button i Delete	in the Cha	Inge Center to activate all the b	Showing 1 to 9 of 9 Previous Next		
Foreign JNDI Providers Work Contexts WML Registries XML Entry Caches	Click the Loc New ~ [2] Name AQ-JMS	ok & Edit button i Delete 	in the Cha Type Generic	inge Center to activate all the b JNDI Name jdbc/aqjmsdb	Showing 1 to 9 of 9 Previous Next Targets OFSLL_ManagedServer		
Foreign JNDI Providers Work Contexts WML Registries YML Entry Caches JOOM Mall Sessions ow do I Contat JRC associated the senses	Click the Loc New - I AQ-JMS jdbc/db	ok & Edit button i Delete 5-DB ok105nlEJBDS	Type Generic Generic	nge Center to activate all the b JNDI Name jdbc/aqjmsdb jdbc/dbk105nIEJBDS	Showing 1 to 9 of 9 Previous Next Targets OFSLL_ManagedServer WS_ManagedServer		
Foreign JNDI Providers Work Contexts WML Registries XML Registries XML Entity Caches JOOM Mail Sessions tow do L Create JDBC generic data sources Create JDBC Grid link data sources	Click the Local New - E AQ-JMS jdbc/dt LocalSv	ck & Edit button i Delete 5-DB ok105nIEJBDS vcTblDataSource	Type Generic Generic Generic	INDI Name jdbc/aqjmsdb jdbc/dqjmsdb jdbc/dbk105nIEJBDS jdbc/LocalSvcTbIDataSource	Showing 1 to 9 of 9 Previous Next Targets OFSLL_ManagedServer WS_ManagedServer AdminServer		
Foreign JNDI Providers Work Contexts WML Registries Mult Entity Caches	Click the Loc New - C AQ-JMS jdbc/dt LocalSo mds-ac	ck & Edit button i Delete 5-DB 0k105nlEJBD5 ccTblDataSource	Type Generic Generic Generic Generic	INDI Name jdbc/aqjmsdb jdbc/djk105nlEJBDS jdbc/LocalSvcTblDataSource jdbc/mds/adf	Showing 1 to 9 of 9 Previous Next Targets OFSLL_ManagedServer WS_ManagedServer AdminServer OFSLL_ManagedServer		
Create JDBC generic data sources Create JDBC GridLink data sources Create JDBC Multi data sources Create JDBC Multi data sources Create JDBC multi data sources	Click the Loc New - C AQ-JMS jdbc/dt LocalSo mds-ac	ck & Edit button i Delete S-DB ok105nlEJBDS rcTblDataSource If	Type Generic Generic Generic Generic Generic	INDI Name jdbc/aqjmsdb jdbc/dbt105nlEJBDS jdbc/uds/svTblDataSource jdbc/mds/adf jdbc/ofslIDBConnDS	Showing 1 to 9 of 9 Previous Next Targets OFSLL_ManagedServer AdminServer AdminServer, OFSLL_ManagedServer AdminServer, OFSLL_ManagedServer		
	Click the Loc New Click Name AQ-JMS jdbc/dt LocalSx mds-ac OFSLL OpSLa	A & Edit button i belete 	Type Generic Generic Generic Generic Generic Generic Generic	INDI Name jdbc/aqjmsdb jdbc/aqjmsdb jdbc/dbk105nIEJBD5 jdbc/cocal5vcTbIDataSource jdbc/ofsIIDBConnD5 jdbc/aditAppendDataSource	Showing 1 to 9 of 9 Previous Next Targets OFSLL_ManagedServer WS_ManagedServer AdminServer, OFSLL_ManagedServer AdminServer, OFSLL_ManagedServer AdminServer, OFSLL_ManagedServer, WS_ManagedServer, WS_WS_MAnagedServer, WS_WS_WS_MANAgedServer, WS_WS_WS_WS_WS_WS_WS_WS_WS_WS_WS_WS_WS_W		
Vork Contexts Work Contexts Wurk Contexts Wurk Contexts Wurk Contexts Wurk Contexts Wurk Contexts Wall Sections Ow do L Create JDBC generic data sources Create JDBC GridUnk data sources Create JDBC GridUnk data sources Create JDBC GridUnk data sources Create JDBC multi d	Click the Loc New - C AQ-JMS jdbc/dt LocalSx mds-ac OFSLL opss-au	A & Edit button i Delete S-D8 S-D8 ok105nlE3B05 vcTblDataSource If udit-D8D5 udit-VsewD5	Type Generic Generic Generic Generic Generic Generic Generic	INDI Name jdbc/aqjmsdb jdbc/dqjmsdb jdbc/dbk105nIEJBDS jdbc/dcalSvcTbIDataSource jdbc/ofsIIDBConnDS jdbc/AuditAppendDataSource jdbc/AuditViewDataSource	Showing 1 to 9 of 9 Previous Next Targets OFSLL_ManagedServer WS_ManagedServer AdminServer, OFSLL_ManagedServer AdminServer, OFSLL_ManagedServer AdminServer, OFSLL_ManagedServer, WS_ManagedServer AdminServer, OFSLL_ManagedServer, WS_ManagedServer		
Foreign JNDI Providers Work Contexts WML Registries XML Entry Caches iOM Mail Sections Ow do I Create JDBC generic data sources Create JDBC GridUnk data so	Click the Loc New Click the Loc AQ-JMS jdbc/dt LocalSx ofSLL opss-au opss-au	A & Edit button i Delete S-DB S-DB S-DB S-LIOSNEJBDS KrTbIDataSource If udit-DBDS addt-viewDS ata-source	Type Generic Generic Generic Generic Generic Generic Generic Generic	INDI Name jdbc/aqjmsdb jdbc/dbk105nIEJBDS jdbc/localSvcTbIDataSource jdbc/mds/adf jdbc/AuditAppendDataSource jdbc/AuditViewDataSource jdbc/AuditViewDataSource	Showing 1 to 9 of 9 Previous Next Targets OFSLL_ManagedServer WS_ManagedServer AdminServer, OFSLL_ManagedServer AdminServer, OFSLL_ManagedServer AdminServer, OFSLL_ManagedServer, WS_ManagedServer AdminServer, OFSLL_ManagedServer, WS_ManagedServer AdminServer, OFSLL_ManagedServer, WS_ManagedServer		

4. Click 'Lock & Edit' button on the left panel. Click 'New' on right panel and select 'Generic Data Source'.

ew changes and restarts		and monie bog of	at releven	ues inte	coro Help	
					v	Velcome, weblogic Connected to: OFSLLREL_dom
pending changes exist. Click the Releas	e .	Home >Summary	of JDBC D	ata Sources	i i i i i i i i i i i i i i i i i i i	
onfiguration button to allow others to edi main.	t the	Summary of JDB	C Data Sou	irces		
Lock & Edit		Configuration	Monitoring	9		
Release Configuration						
omain Structure		A JDBC data sou connections. Ap	plications c	bject bound an look up a	to the JNDI tree that provides data source on the JNDI tree a	database connectivity through a pool of JDBC and then borrow a database connection from a data
SLLREL_domain	1.1	source.				
Domain Partitions	^	This page summ	narizes the .	IDBC data s	ource objects that have been cr	reated in this domain.
- Environment						
"Services		Customize thi	s table			
Hessaging		NAMES OF A DESCRIPTION OF A DESCRIPTIONO				
Data Sources		Data Sources (Filtered -	More Colur	nns Exist)	
Foreign JNDI Providers		New - Dele	te			Showing 1 to 9 of 9 Previous Next
Work Contexts	1	Generic Data 9	Source	Туре	JNDI Name	Targets
XML Registries		_ GridLink Data	Sourd			
јсом	~	. Multi Data Sou	rce	Generic	jdbc/aqjmsdb	OFSLL_ManagedServer
Mail Sessions		Proxy Data So	urce	Generic	jdbc/dbk105nlEJBDS	W5_ManagedServer
ow do L		UCP Data Sour	rce uro	e Generic	jdbc/LocalSvcTblDataSource	AdminServer
Create JDBC generic data sources		mos-adr		Generic	jdbc/mds/adf	AdminServer, OFSLL_ManagedServer
Create JDBC GridLink data sources		OFSLL	_	Generic	jdbc/ofsllDBConnDS	AdminServer, OFSLL_ManagedServer
Create JDBC multi data sources		opss-audit	-DBDS	Generic	jdbc/AuditAppendDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
Create Proxy data sources		opss-audit	-viewDS	Generic	jdbc/AuditViewDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
stem Status	8	opss-data-	source	Generic	jdbc/OpssDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
ealth of Running Servers as of 7:58 PM		WLSSchen	naDataSoun	e Generic	jdbc/WLSSchemaDataSource	
Failed (0)		New~ Dele	ste			Showing 1 to 9 of 9 Previous Next
Critical (0)						



5. The following window is displayed.

Change Center	😰 Home Log Out Preferences 🚵 Record Help
View changes and restarts	Welcome, weblogic Connected to: OFSLLREL_domain
No pending changes exist. Click the Release	Home >Summary of JDBC Data Sources
Configuration button to allow others to edit tr domain,	Create a New JDBC Data Source
Lock & Edit	Back Next Finish Cancel
Release Configuration	JDBC Data Source Properties
Oomain Structure	The following properties will be used to identify your new JDBC data source.
FSLLREL_domain	* Indicates required fields
+-Domain Partitions	
Deployments	What would you like to name your new JDBC data source?
El-Services	
Messaging	The ofslikest
Data Sources	
Foreign JNDI Providers	What scope do you want to create your data source in ?
Work Contexts	Scope: Clobal
XML Registries	
-XML Entity Caches	What JNDI name would you like to assign to your new JDBC Data Source?
-Mail Sessions	
Janu da T	i JNDI Name:
10w 00 1	jdbc/Ofsl1WSDS
 Create JDBC generic data sources 	
 Create LLR-enabled JDBC data sources 	
System Status	
Health of Running Servers as of 7:59 PM	What database type would you like to select?
Failed (0)	
Critical (0)	Database Type: Oracle
Overloaded (0)	
Warning (0)	Back Next Finish Cancel
OK (3)	

- 6. Specify the following details:
 - Enter Data source Name
 - Enter the JNDI Name as 'jdbc/OfsllWSDS'.
 - Select 'Oracle' as Database Type.
- 7. Click 'Next'. The following window is displayed.

Change Center	Home Log Out Preferences 🚵 Record Help
View changes and restarts	Welcome, weblogic Connected to: OFSLLREL_dom
No pending changes exist. Click the Release Configuration button to allow others to edit the	Home >Summary of JDBC Data Sources Create a New JDBC Data Source
Comain.	Back Next Finish Cancel
Domain Structure	JDBC Data Source Properties
OFSLILREL_domain Obmain Partitions Oreployments Oreployments Oresployments Oresp	The following projectes will be used to density your new slobe data source. Database Oracle Type: What database driver would you like to use to create database connections? Note: * indicates that the driver is explicitly supported by Oracle WebLogic Server.
Parsistant Stores Poreigin JNDI Providers Work Contexts XML Registries XML Registries XML Entity Caches JCOM Mail Sessions	Database *Oracle's Driver (Thin) for Service connections; Versions: Any Back Next Finish Cancel
Oreate JDBC generic data sources Oreate LLR-enabled JDBC data sources	
System Status	
Health of Running Servers as of 8:00 PM Critical (0) Critical (0) Varring (0)	

8. Select the Database Driver 'Oracle's Driver(Thin) for Services connections;Versions:Any'.



9. Click 'Next'. The following window is displayed.

Change Center	A Home Log Out Preferences 🖂 Record Help
View changes and restarts	Welcome, weblogic Connected to: OFSLLREL_domain
No pending changes exist. Click the Release Configuration button to allow others to edit the	Home >Summary of JDBC Data Sources
domain.	Create a New JDBC Data Source
Lock & Edit	Back Next Finish Cancel
Release Configuration	Transaction Options
Domain Structure	You have selected non-XA JDBC driver to create database connection in your new data source.
OFSLLREL_domain	Does this data source support global transactions? If yes, please choose the transaction protocol for this data source.
-Deployments	Supports Global Transactions
Messaging Data Sources	Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the <i>Logging Last Resource</i> (LLR) transaction optimization. Recommended in place of Emulate Two-Phase Commit.
Persistent Stores Foreign JNDI Providers	O Logging Last Resource
Work Contexts XML Registries	Select this option if you want to enable non-XA JDBC connections from the data source to emulate participation in global transactions using JTA. Select this option only if your application can tolerate heuristic conditions.
jCOM Mail Sessions	C Emulate Two-Phase Commit
How do I	Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the one-phase commit transaction processing. With this option, no other resources can participate in the global
Create JDBC generic data sources	transaction.
Create LLR-enabled JDBC data sources	One-Phase Commit
System Status	Back Next Finish Cancel
Health of Running Servers as of 8:02 PM	
Failed (0)	
Critical (0)	
Overloaded (0)	
Warning (0)	

10. Click 'Next'. The following window is displayed.

Change Center		🔒 Home Log Out Preferences 🛽	Record Help	Q	
View changes and restarts				Welcome, weblogic Connected to: OFSLLREL_domain	
No pending changes exist. Click the Release		Home >Summary of JDBC Data So	urces		
Configuration button to allow others to edit domain.	the	Create a New JDBC Data Source			
Lock & Edit		Back Next Finish Cance	el		
Release Configuration		Connection Properties			
Domain Structure		Define Connection Properties.			
DFSLLREL_domain	^	What is the name of the database y	ou would like to connect t	to?	
Environment Deployments Services		Database Name:	OLLDB		
Messaging Data Sources			What is the name or IP address of t	the database server?	
Persistent Stores Foreign JNDI Providers Work Contexts		Host Name:	ofsll.oralce.com		
XML Registries		What is the port on the database se	erver used to connect to th	he database?	
	~	Port:	1521		
How do I		What database account user name	do you want to use to cre	ate database connections?	
Create JDBC generic data sources Create LLR-enabled JDBC data sources		Database User Name:	OFSLLREL		
		What is the database account passv	word to use to create data	base connections?	
System Status	-	Password:			
Health of Running Servers as of 8:07 PM					
Failed (0) Critical (0)		Confirm Password:	•••••	۴	
Overloaded (0) Warning (0)		Additional Connection Properties:			
OK (3)		oracle.jdbc.DRCPConnectionCla	155:		

11. Enter the Database details.



12. Click 'Next'. The following window is displayed.

Change Center	1 Home Log C	ut Preferences 🚵 Record Help
View changes and restarts		Welcome, weblogic Connected to: OFSLLREL_domain
No pending changes exist, Click the Release	Home >Summa	y of JDBC Data Sources
Configuration button to allow others to edit t domain.	Create a New J	BC Data Source
Lock & Edit	Test Configurat	nn Bank Nevt Finish Cannel
Release Configuration	Test optingurat	
	Test Databas	2 Connection
Iomain Structure	Test the datab	ise availability and the connection properties you provided.
(FSLLREL_domain	What is the full	backage name of JDBC driver class used to create database connections in the connection pool?
Environment	(Note that this d	river class must be in the classoath of any server to which it is deployed.)
Deployments	1. A construction of the second	and and an and a second second second second second second second
Messaging	Driver Class N	ime: Aracle ideo OracleDriver
Data Sources		
Persistent Stores	What is the URL	of the database to connect to? The format of the URL varies by JDBC driver.
Work Contexts	101.	
XML Registries	UKL:	jdbc:oracle:thin:@//ofsll.oralce.com:1521/OLLDB
-jCOM	What database	crount user name do you want to use to create database connections?
Mail Sessions		
How do I	Database User Name:	OFSLLREL
Create JDBC generic data sources		
Create LLR-enabled JDBC data sources	What is the data	base account password to use to create database connections?
	(Note: for secur	password management, enter the password in the Password field instead of the Properties field below)
System Status		
Health of Running Servers as of 8:07 PM	Password:	*****
Failed (0)		
Critical (0)	Confirm Passv	ord:
Overloaded (0)		
OK (3)	What are the pr	perties to pass to the JDBC driver when creating database connections?
	Properties:	

- 13. Click 'Test Configuration'. On completion, displays a confirmation message as 'Connection test succeeded'.
- 14. Click 'Next'. The following window is displayed.

Change Center	1 Home Log Out Preferences 2 Record Help
View changes and restarts	Welcome, weblogic Connected to: OFSLLREL_domain
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Home >Summary of JDBC Data Sources Create a New JDBC Data Source
Lock & Edit Release Configuration	Back [Next] [Finish] Cancel
Demain Structure DFSLIREL_domain DFSLIREL_domain DFSLiptonents Deployments Deployments Deployments Deproved the second se	Vou can select one or more targets to deploy your new JDBC data source. If you don't select a target, the data source will be created but not deployed. You will need to deploy the data source at a later time. Servers OFSLL_ManagedServer Back_Next Enish Cancel
low do I	a)
Create JDBC generic data sources Create LLR-enabled JDBC data sources	
System Status	
Health of Running Servers as of 8:11 PM Failed (0) Critical (0) Overloaded (0) Warning (0) OK (2)	

- 15. Select target Server as 'WS_ManagedServer'.
- 16. Click Advanced button and update the 'Inactive Connection Timeout' to 300 seconds.



17. Click 'Finish' to activate the changes.

3.2 OAuth Implementation

(Optional) To extend OFSLL SaaS, OAuth2 can be used for securing OFSLL web services user access Authentication.

Web services authentication using OAuth2 is one of the best approach for securing user authentication to extend OFSLL SaaS. This uses Oracle / Non-Oracle PaaS to authenticate service access request from an external partner application without sharing OFSLL environment access credentials (UID / Password) and leverages the built-in support for OAuth 2.0.

OAuth 2.0 is an open standard token-exchange technology for verifying a user's identity across multiple systems and domains without risking the exposure of a password.

For detailed information, refer to the OAuth Implementation guide shared in OTN library: https://docs.oracle.com/cd/F16599_01/references.htm.

3.3 Deploy RESTful WebService

1. Login to Web Logic application server enterprise manager (e.g.:<u>http://hostname:port/em</u>)

ORACLE ENTERPRISE MANAGER FUSION MIDDLEWARE CONTROL 120	
Domain_OFSLLREL_domain * User Name * Password Login to Partition Sign in	
	ORACLE



2. Enter valid login credentials. The following window is displayed.



- 3. Select 'Lock & Edit' option in the lock drop-down list available in the header.
- 4. Click 'Deployment' in the left panel. The following window is displayed.

OFSLLREL_domain 0							1	- 🖂 -	Auto Refresh	Off	-
								Edit Sessions	5	M IST	*
Information								Lock & Edit	N		6
Certain functionality on this page	is av	ailable only when you own the edit sessi	on lock. T	o obtain th	ne lock, click	"Lock and	Edit" in t	View Change	List		1
Servers 3 up		Administration Server Name AdminServe	View & Reso Release Con Activate Char								
		Listen Port 9001	Host ofsil.in.oracle.com								
Clusters		Servers							Preferences		
0 >		View - Create K Delete Control - E						Help			
O		Name	Status	atus Cluster	uster Machine	ne State	Health		Listen Port		
		AdminServer(admin)	Ť			Running	OK		9001		
2 22 22		OFSLL_ManagedServer	1			Running	OK		9003		
Deployments		WS_ManagedServer	1			Running	OK		9004		
Oomain Partitions											
Domain Partitions											
Resource Group Templates		4								>	



5. Select 'Deploy' from the Deployment drop-down list. The following window is displayed.

Confirmation The edit session lock has bee	n acqu	uired. N	lo pen	iding changes ex	ist.						6		
Servers		Dep	Deployments										
		View 👻 📄 Show All		Show All	Deploym	ent 👻 Override 👻		» 🖙					
3 Up		1			1 Deple	у	•		v v	•			
				Name	E Rede	ploy		State	Health	Туре	Domain Pa		
Clustera				ofsl147(V14	× Unde	ploy		Active	OK	Enterprise Application			
0 Clusters		OfsliQueueA		Etch Deployment Plan			Active	OK	Enterprise Application				
	•			opss-rest		+		Active	OK	Web Application			
3 Up	ŀ												
Domain Partitions													
Domain Partitions 0 Domain Partitions	Þ												

6. The following window is displayed.

FSLIPEL domain	
Select Archive Select Target Application Attributes Deployment Settings	
Deploy Java EE Application: Select Archive	Each Step 1 of 4 Next Cane
StopP StopP Antificity or Explored Directory StopP (Exclusion Control of	Information Informati
Dependence of Plant The description of the dependence of the depen	yeru

- 7. Browse to the folder containing the WebService. Eg: C:/OfsllRestEAR.ear
- 8. Click 'Next'. The following window is displayed.

	_domain 💿		
	Antonia Material Anno		
	annot taight stip	California California Santariga	
entov	Java EE Application: Select	Target	Bank Step 2 of a Neat Caner
Select #	he WebLogic server or cluster that you war	it this application to be deployed to.	
Gelect	Name	Type	Deployed Applications
	AdminServer	Oracle WebLogic Server	
tour.			
6.07	OFSLL_ManagedServer	Oracle WebLogic Server	
	OFSLL_ManagedServer	Oracle WebLogic Server	

9. Select the server on which the WebService needs to be deployed.



10. Click 'Next'. The following window is displayed.

FSLLREL domain								
0	0							
Select Archive	Select Target	Application Attributes	Deployment Settings					
Deploy Java EE Ap	plication: Ap	plication Attribut	tes	Back	Step 3 of 4	Next	Deploy	Cance
A Hide Deployment Summ	ary							
Archive	Type Java EE Applie	ation (EAR file)						
Deployment	Plan Create a new j	an						
Deployment T	arget WS Managed	Server						
	aana Giabal							
-	- Ciobai							
Deployment	Type Application							
* Application	Name OfsliRestEA	R						
* Application	Name OfsliRestEA	R						
* Application	Name OfsliRestEA	R						
* Application Context Root of Web Mo Web Module	odules Context Roc	R						
* Application Context Root of Web Mo Web Module OfsliRestWAR.war	odules Context Roc OfsilRestWS	R M						

- 11. Select the option 'Install and start application (servicing all requests)'.
- 12. Check the context root and click 'Next'. The following window is displayed.

FSLLREL_domain 🚯												
0	0	<	2									
Select Archive Si	elect Target	Application	Attributes	Deployme	nt Settings							
eploy Java EE App	lication: D	eployme	nt Settin	gs				Back	Step 4 of 4	Next	Deploy	Cance
Hide Deployment Summar	у											1
Archive Typ	pe Java EE App	plication (EAR	file)									
Deployment Pla	an Create a nev	v plan										
Deployment Targ	et WS_Manage	edServer										
Sco	pe Global											
Deployment Typ	pe Application											
Application Nan	ne OfsliRestEA	R										
Versio	on Not versione	d										
Context Ro	ot OfsliRestWS											
Deployment Mod	de Install and st	tart application	(servicing al	ll requests)								
Deployment Tasks												
The table below lists common t	asks that you ma	y wish to do b	efore deployi	ing the applica	tion.							
Name	Go	To Task	Description	1 0								
Configure Web Modules		1	Configure th	ne Web module	es in your applic	ation.						
Configure Application Security	<i>i</i>	/	Configure a	pplication polic	v migration, cre	dential migrati	on and other se	curity be	havior.			

13. Click 'Deploy'. On successful deployment, the following window is displayed.

Deployment of Applicat	tion "OfslIRestEAR" is completed. The deployment changes are pending activation. Exit the wizard and use the Change Center to
activate or undo the ch	anges.
Summary	
Scope	Global
Version	Not versioned
Deployed Archive Location	/u011Middleware/Weblogic12cHome/user_projects/domains/OFSLLREL_domain/sysman/upload/deploy/OfsIRestEAR/archive/ OfsIRestEAR.ear
Archive Type	Java EE Application (EAR file)
Deployment Mode	Install and start application (servicing all requests)
Deployment Target	WS_ManagedServer
Application States	Unavailable (WS_ManagedServer)
Context Root	OfsilRestWS
Hide Progress Mes	sages
(26 September 20 (26 September 20) (26 September 20) OfsliRestEAR(arch (26 September 20) occurs, task proce (28 September 20)	17 2023-20 of oldek IST Instanting deploy operation 17 2023-20 of oldek IST Instanting the origination changes to archive. 17 2023-21 of oldek IST Archive. Ind I Middleware Weblog 12 cHome User_projects/domains/OFSLLREL_domain/sysman/upload/deploy/ 17 2023-21 of oldek IST [Deploy] 17 2023-21 of oldek IST [Deploy] 17 2023-21 of oldek IST [Deploy operation completed. 17 2023-31 of oldek IST [Deploy operation completed.



14. Click 'Close'. Post deployment, you need to activate the changes by selecting 'Active Changes' option from 'Edit Session' drop-down list as indicated in step 4 above.

To Identify the RESTful Webservice URL

- 1. Login to WebLogic Server 12c console (http://hostname:port/console).
- 2. Click 'Deployments' Under Configuration tab and select 'OfsllRestEAR' services. The following window is displayed.

mmar	y of Deployments							
Configu	uration Control	Monitoring						
This pa You ca then u To inst Custo	age displays the list or in update (redeploy) or sing the controls on th tall a new application mize this table	f Java EE appli or delete instal his page. or module for	cations and led applicat deploymen	l standalone tions and mo t to targets ir	application modules install dules from the domain by n this domain, click Instal	ed to this do selecting the I.	main. checkbox next to the a	application name and
Instal	I Update Delete	9					Showing 31 to 40	of 61 Previous Nex
Instal	I Update Delete	State	Health	Туре	Targets	Scope	Showing 31 to 40 Domain Partitions	of 61 Previous Nex
	Name 🐟	State Active	Health	Type Library	Targets AdminServer, OFSLL_ManagedServer, WS_ManagedServer	Scope Global	Showing 31 to 40	of 61 Previous Nex Deployment Order
	Aame A Codl.clickhistory 1.0,12.2.1)	State Active Active	Health	Type Library Library	Targets AdminServer, OFSLL_ManagedServer, WS_ManagedServer, OFSLL_ManagedServer, WS_ManagedServer	Scope Global Global	Showing 31 to 40	of 61 Previous Nex Deployment Order 100 100
		State Active Active Active Active	Health	Type Library Library EJB	Targets AdminServer, OFSLL_ManagedServer, WS_ManagedServer, OFSLL_ManagedServer, ManagedServer, WS_ManagedServer, WS_ManagedServer, OFSLL_ManagedServer,	Scope Global Global Global	Showing 31 to 40 Domain Partitions	of 61 Previous Nex Deployment Order 100 100 100

3. Click 'Testing' tab and expand 'OfsllRestWS'. The following window is displayed.

Settings for OfsllRestEAR
Overview Deployment Plan Configuration Security Targets Control Testing Monitoring Notes

Some deployment types support test points you can use to verify that a deployment was successful and that the module is ready for use. The following table includes all of the test points available for this application or module.

Showing 1 to 1 of 1 Previous							
Name 🙈	Test Point	Comments					
□ OfsllRestEAR		Solit table by comments					
/OfsllRestWS/rest	/application.wadl	WADL page on server WS_ManagedServer					
/OfsllRestWS/service/api/resources	/application.wadl	WADL page on server WS_ManagedServer					
default	http://10.184.132.155:8315/OfsllRestWS	Default url on server WS_ManagedServer					

- 4. You can view the 'OfsllRestful' Services URL as shown.
- 5. Swagger documentation for RESTful web services can be accessed using the following URL type http://<server_name>;<port>/<Application_context>/swagger.json

