Data Model – Getting Started Oracle FLEXCUBE Universal Banking Release 14.0.0.0.0 [November] [2017]



Contents

1	Preface	3
	1.1 Audience	3
2	Introduction	3
	2.1 What is in this guide	
	2.2 Why reverse engineering	
3	FLEXCUBE UBS Data Model – getting started	3
	3.1 FLEXCUBE UBS Data model schema	3
	3.2 Oracle SQL Developer Data Modeler	4
	Creating Data Model and ER diagram	

1 Preface

Oracle FLEXCUBE Universal Banking Software – Data model – Getting started document describes the method to create data model for application business extensibility purpose.

1.1 Audience

This guide is intended for FLEXCUBE Application developers who need to understand the FLEXCUBE UBS data model

2 Introduction

2.1 What is in this guide

This document describes the reverse engineering methodology to get the FLEXCUBE UBS data model for a given business purpose. A given business purpose could vary from report generation to data extraction to extending FLEXCUBE application functionality.

2.2 Why reverse engineering

As the complete ER diagram of FLEXCUBE UBS application would be huge, the business application developers need to re-engineer with required filtered portion of FLEXCUBE UBS to get specific portion of data model.

Example:

There is a business requirement to add additional fields to customer personal information. The business developer could filter the Customer specific entities from FLEXCUBE UBS Database schema and generate the ER diagram. This ER diagram further can be used to understand the FLEXCUBE UBS and can be foundation for further business development requirement.

3 FLEXCUBE UBS Data Model – getting started

3.1 FLEXCUBE UBS Data model schema

- 1. Follow the below steps to get the Oracle FLEXCUBE UBS Data model schema.
 - a. Identify the new Oracle Database schema for data model purpose.
 - b. Create the FLEXCUBE UBS database tables by running all the DDL scripts in below folder at the schema identified.
 - FCUBS_12.2.0.0\MAIN\DATABASE\HOST\CONSOL\DDL\TABLE
 - FCUBS_12.2.0.0\MAIN\DATABASE\BRANCH\CONSOL\DDL\TA BLE

- FCUBS_12.2.0.0\MAIN\DATABASE\EL\CONSOL\DDL\TABLE
- c. Create Foreign Keys in schema using following scripts at the schema identified.
 - FCUBS_12.2.0.0\MAIN\DATABASE\DATAMODEL\FKR
- d. Create column comments using below scripts at the schema identified.
 FCUBS_12.2.0.0\MAIN\DATABASE\DATAMODEL\CMT

Note: The Database environment used for this data model cannot be used for other testing/production purpose.

- 2. You can get the data model PDF documents from below folders for each module that data model is shipped.
 - FCUBS_12.2.0.0\MAIN\DATABASE\DATAMODEL\PDF

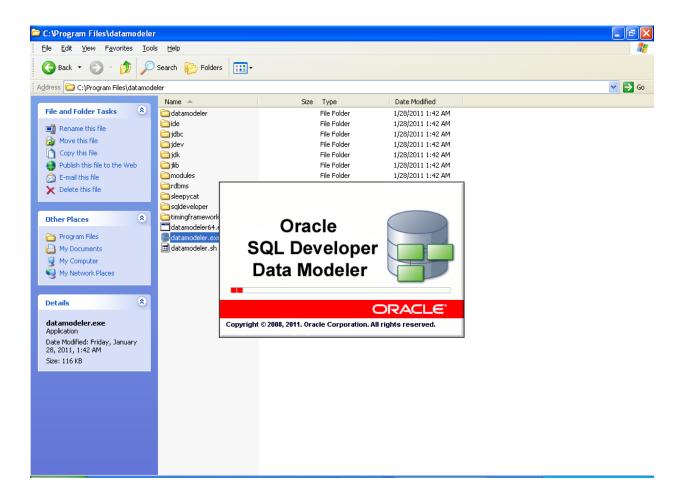
3.2 Oracle SQL Developer Data Modeler

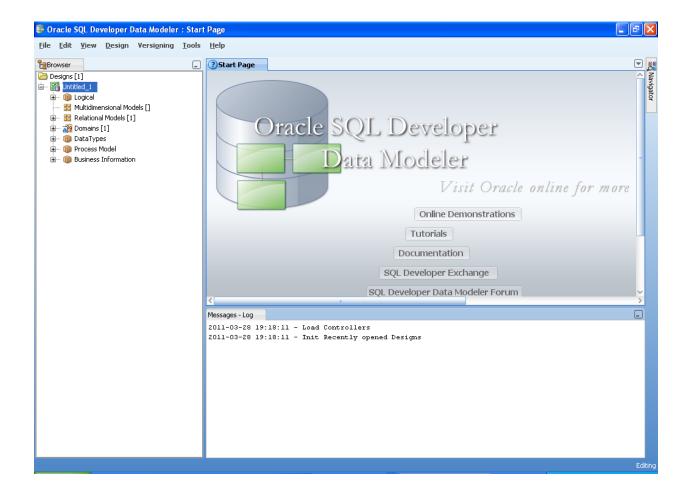
Ensure you have installed the Oracle SQL Developer Data model in your local system. Refer further Oracle documentation for download and install instructions.

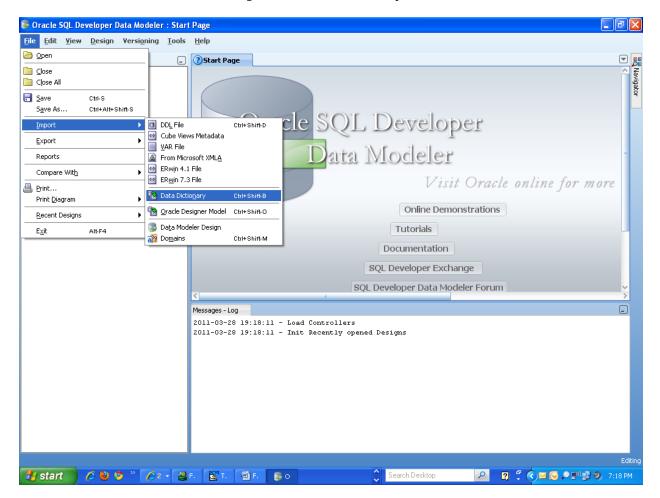
http://www.oracle.com/technetwork/developertools/datamodeler/downloads/index.html

4 Creating Data Model and ER diagram

1. Open the Oracle SQL Developer Data modeler







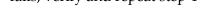
3. Click **Add**

Data Dictionary Import Wizard				×	
		Select database connection to connect to desired database. If the list is empty use the "Add" button to create one.			
1. Connect to Database.	Name	Туре	Host	Port	
2. Select Schema/Database.					
3. Select Objects to Import.					
4. Generate Design.					
	Add Remov	e <u>I</u> mport Pr	roperties <u>I</u> est (
		< Back Next >	Einish <u>C</u> ancel	<u>H</u> elp	

4. Provide the **database connectivity** parameters

😺 New / Upda	te Database Connection 🛛 🔀						
Co <u>n</u> nection Name	CKERDATAMODEL						
<u>U</u> ser Name	FCKERDATAMODEL						
<u>P</u> assword	•••••						
🗹 Sa <u>v</u> e Password							
Oracle JDBC	ODBC Bridge						
Ro <u>l</u> e	default 👻						
Connection Type	Basic 💌						
Hostn <u>a</u> me	10.184.74.142						
Po <u>r</u> t	1521						
⊙ S <u>I</u> D	KERDEV2						
◯ S <u>e</u> rvice name							
Help	<u>Clear</u> <u>Test Connection</u> <u>OK</u> Cancel						

5. Click **Test Connection** and ensure it is successful. If connection fails, verify and repeat step 4





Click database connection row

Data Dictionary Import Wizard				X
		Select database connection If the list is empty use the "A		ase.
1. Connect to Database.	Name	Туре	Host	Port
	FCKERDATAMODEL	Oracle	10.184.74.142	1521
2. Select Schema/Database.				
3. Select Objects to Import.				
4. Generate Design.				
	Add <u>R</u> emov	re <u>I</u> mport	Properties	Iest Connection
		< Back Next >	<u> </u>	Cancel <u>H</u> elp

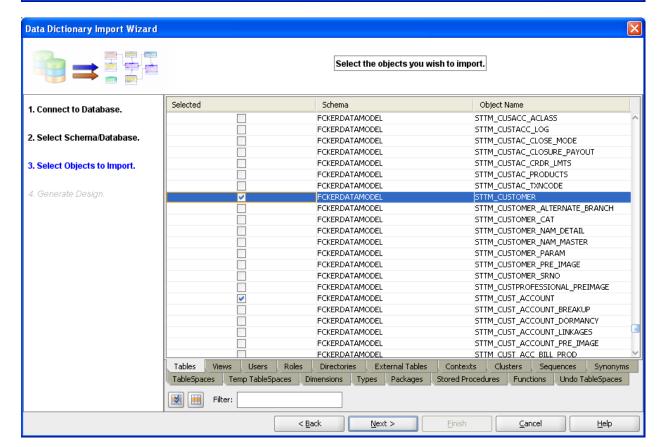
8. Select the database Schema name

N N N N N N N N N N N N N N N N N N N	ļ	Select the schema/database you wish to import.
. Connect to Database.	Selected	Schema
. Connect to Database.		זחמאוכנדש
		FCISSMSUT1
. Select Schema/Database.		FCISSMSUT2
		FCISSPD1
Colort Objects to Juneat		FCISSPUT1
3. Select Objects to Import.		FCISSPUT2
		FCIS_MDS
. Generate Design.		FCIS_ORABAM
		FCIS_ORASDPM
		FCIS_SOAINFRA
		FCITR2
	✓	FCKERDATAMODEL
		FCMOBILE
		FCPB1121
		FCPBIT1
		FCPBIT1READ
		FCPBIT2
		FCSUPPQT
		FCTRNGDEV112
		FCUBSELCM
		FCUBSITSUP1
	Filter:	All Selected Secondary Tables Spatial Properties
	impore co.	

9.

Select the entities(tables) that are to be used in ER diagram

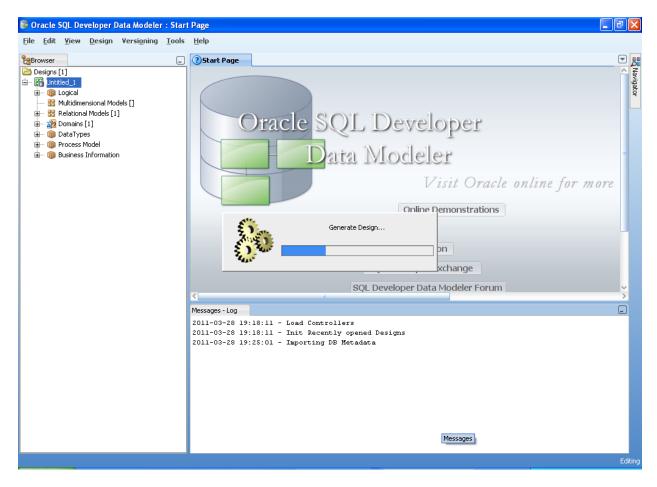
		Select the objects you w	wish to import.
1. Connect to Database.	Selected	Schema	Object Name
i. Connect to Database.		FCKERDATAMODEL	CVTW UPLOAD MONITOR
		FCKERDATAMODEL	CYTA RATES
2. Select Schema/Database.		FCKERDATAMODEL	CYTB_ACCR_POSITION
		FCKERDATAMODEL	CYTB_CASH_POSITION
3. Select Objects to Import.		FCKERDATAMODEL	CYTB_CCY_PAIR
		FCKERDATAMODEL	CYTB_CCY_POSITION
		FCKERDATAMODEL	CYTB_DERIVED_RATES_HISTORY
4. Generate Design.		FCKERDATAMODEL	CYTB_DUMMY
		FCKERDATAMODEL	CYTB_DUMMY_BACKUP
		FCKERDATAMODEL	CYTB_RATES_HISTORY
		FCKERDATAMODEL	CYTB_RATES_REVAL
		FCKERDATAMODEL	CYTB_RATES_UPLOAD
		FCKERDATAMODEL	CYTM_CCY_COUNTRY_MAPPING
	✓	FCKERDATAMODEL	CYTM_CCY_DEFN
		FCKERDATAMODEL	CYTM_CCY_DEFN_INTMDT
		FCKERDATAMODEL	CYTM_CCY_DEFN_UPLOAD
		FCKERDATAMODEL	CYTM_CCY_DENO_DETAIL
		FCKERDATAMODEL	CYTM_CCY_DENO_MASTER
		FCKERDATAMODEL	CYTM_CCY_PAIR_DEFN
		FCKERDATAMODEL	CYTM_CCY_PAIR_DEFN_UPLOAD
		FCKERDATAMODEL	CYTM_CCY_WEIGHTAGES
	Tables Views Users	FCKERDATAMODEL Roles Directories External Tables	CYTM CUST SPREAD DETAILS
			- V V V V
	TableSpaces Temp TableS	paces Dimensions Types Packages	Stored Procedures Functions Undo TableSpaces
	Filter:		



10. Click **Next**

Data Dictionary Import Wizard	× · · · · · · · · · · · · · · · · · · ·
	View summary and generate Oracle SQL Developer Data Modeler design.
1. Connect to Database.	Database Name: Oracle Database Version: Oracle Database 11g Enterprise Edition Release 11.2.0.2.0 - 64bit Production
2. Select Schema/Database.	DB Objects that will be imported: TABLE 4
3. Select Objects to Import.	
4. Generate Design.	
	< Back Next > Einish Cancel Help

11. Click **Finish**



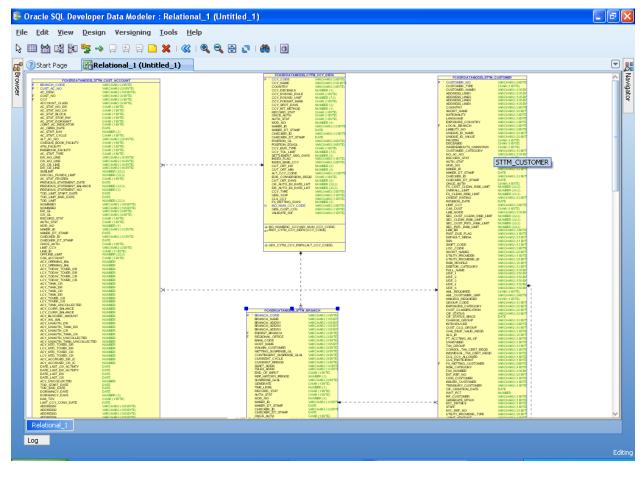
-			
100	Vie		-
100	VIE	 	-

Oracle SQL Developer Data Modeler 3.0.0.665 Oracle SQL Developer Data Modeler Import Log Date and Time: 2011-03-28 19:25:38 IST Design Name: Untitled_1 RDBMS: Oracle Database 11g

All Statements:	4
Imported Statements:	4
Failed Statements:	0
Not Recognized Statements:	0

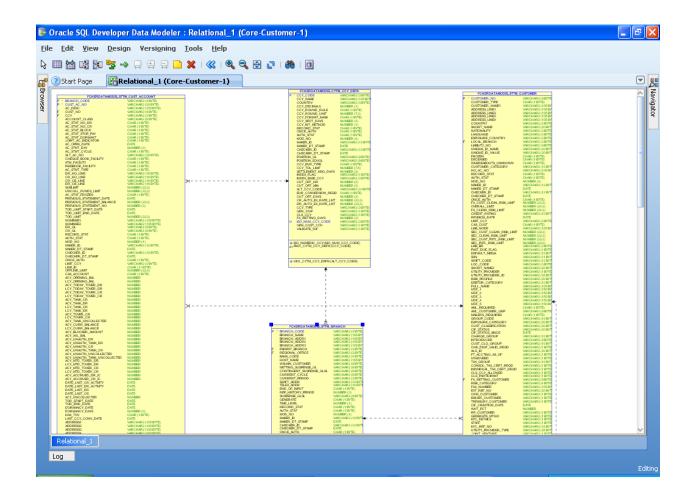
Save	⊆lose	
------	-------	--

×



12. Save data model generated

	Oracle SQL Developer Da	ata Modeler :	: Relational_1 (Untitled_1)					_ 7 🗙
Eile	e <u>E</u> dit <u>Y</u> iew <u>D</u> esign	Versi <u>o</u> ning]	<u>T</u> ools <u>H</u> elp						
ß	💷 🕍 😫 🎘 🥱 🛶 📮		🗙 I ≪ I 🔍 🤅	3, 🕀 🗗 I 🏙 I 🗉					
æ	Start Page Page	inal_1 (Untitled							T
Browser	FCRERDATANCOL STTN_CUST	ACCOUNT NO.	ave Design					HAR2 (D BYTE K1 BYTE)	Navi
Iser	AC_DERC WRCH F_CUST_NO WRCH F_CCY	WR2 (20 BYTE) WR2 (105 BYTE) WR2 (1017TE) WR2 (1017TE) WR2 (1017TE) HR2 (1017TE) 1 BYTE)	Location: 🛅 D	:\Anandan\proj\datamode		- C) 🔁 🖆 📰 💷	HAR2 (105 BY HAR2 (105 BY HAR2 (105 BY HAR2 (105 BY HAR2 (105 BY HAR2 (105 BY	Navigator
	AC_STAT_NO_DR CHAR AC_STAT_NO_CR CHAR AC_STAT_RO_CR CHAR AC_STAT_ROCK CHAR AC_STAT_STOP_PAY CHAR AC_STAT_DORINANT CHAR AC_STAT_DORINANT CHAR AC_ORPH_DATE DATE							HAR2 (20 BYT HAR2 (3 BYTE HAR2 (3 BYTE HAR2 (3 BYTE HAR2 (3 BYTE HAR2 (3 BYTE	
		A RECTOR	Desktop					HAR2 (20 BYT) HAR2 (20 BYT) E(1 BYTE) E(1 BYTE) E(1 BYTE)	-
	AC_STHIT_TYPE CHAR; DR_HO_LINE WRCH	1 (223) WR2(16(27TE) WR2(16(27TE) WR2(16(27TE) WR2(16(27TE) WR2(16(27TE) WR2(16(27TE) WR2(16(27TE)) WR2(16(27TE))						HUNG (1005 BY E(1 BYTE) E(1 BYTE) BER (4) HUNG2 (12 BYT	
	AC_STAT_FROZEN CHAR (PREVAOUS_STATEMENT_DATE DATE DEDATIS STATEMENT_DATE NUMBER	1 (1223) 11 (1223) 11 (1223)	Docume					HAR2 (12 07) 111 07(5) 884 (22.0) 884 (22.0)	
	TOD_LIMIT_START_DATE DATE TOD_LIMIT_END_DATE DATE TOD_LIMIT NUMBE NOMWEN WACH							MER (24(3) HAR2 (10 BYT) HAR2 (10 BYT)	
	CR_GL WARCH RECORD_STAT CHAR(WITH STAT CHAR)	WR2 (PRVTE)	Home					L (1 BYTE) HAR2 (105 BY BR (22.0) BR (22.0) BR (22.0) BR (22.0) BR (22.0) BR (22.0)	
	CHECKER_DT_STAMP DATE	WR2 (12 IIVTE)						HAR2 (13 BYTE HAR2 (13 BYTE HAR2 (15 BYT HAR2 (11 BYT HAR2 (12 BYT HAR2 (12 BYT	
	CAS_ACCOUNT CHAR(ACY_OFENING_BAL NUMBE LCY_OFENING_BAL NUMBE	R						HAR2 (20 BYT HAR2 (1 BYTE HAR2 (25 BYT HAR2 (25 BYT HAR2 (20 BYT	
	ACY_TODAY_TOVER_DR NUMBE LCY_TODAY_TOVER_DR NUMBE ACY_TODAY_TOVER_CR NUMBE		File na	me: Core-Customer-1				HAR2 (105 BY HAR2 (150 BY HAR2 (150 BY HAR2 (150 BY HAR2 (150 BY	
	LCY_TOWN_CR NUMBER NCY_TANK_CR NUMBE LCY_TANK_CR NUMBE LCY_TANK_CR NUMBE NCY_TANK_CR NUMBE NCY_TOWR_CR NUMBER							HARL2 (150 DP) K(1 BYTE) HAR2 (0 BYTE) K(1 BYTE)	
	ACY_TANK_UNCOLLECTED NUMBER ACY_CURR_BALANCE NUMBER LCY_CURR_BALANCE NUMBER ACY_ELCORED_ANOUNT NUMBER		File <u>t</u> yp	oe: Oracle SQL Develope	[,] Data Modeler Design (*	.dmd , *.dmdz)	•	HAR2 (20 BYT HAR2 (20 BYT HAR2 (20 BYT	
	ACY_UNAUTH_DR NUMBE ACY_UNAUTH_TANK_DR NUMBE ACY_UNAUTH_CR NUMBE ACY_UNAUTH_CR NUMBE		Help			Save	Cancel	HAR2 (10 BYT HAR2 (10 BYT HAR2 (10 BYT HAR2 (10 BYT HAR2 (10 BYT HAR2 (20 BYT	
	ACY_UNAUTH_TWIK_UNCOLLECTED_NUMER ACY_MTD_TO/RE_DR_NUMER LCY_MTD_TO/RE_DR_NUMER ACY_MTD_TO/RE_CR_NUMER LCY_MTD_TO/RE_CR_NUMER	R R R R		HOST, MARE WALNIN, CUSTOMER NETTING, SUSPENSE, GL CONTINGENT, SUSPENSE, CA	WARCHWAR2 (105 BY WARCHWAR2 (910/TE WARCHWAR2 (910/TE GLSL WARCHWAR2 (910/TE		UNADVISED TAX_GROUP CONSOL_TAX_CERT_REDD NDNDUAL_TAX_CERT_REDD CLS_CCY_AL_ORATD	HAR2(1 BYTE WRCHAR2(1 BYTE WRCHAR2(10 BYT WRCHAR2(1 BYTE WRCHAR2(1 BYTE	
	ACY_ACGRUED_DR_JC HUMBE ACY_ACGRUED_CR_JC HUMBE DATE_LAT_CR_ACTWITY DATE DATE_LAT_CR_ACTWITY DATE DATE_LAT_CR_DR_ACTWITY DATE DATE_LAT_CR_DR_ACTWITY DATE	32 32		CONTRIGHT SUSPOSE, CURRENT_SUSPOSE, CURRENT_PRICE SWIT_ACCR TRLS_ACCR END_OF_NEUT END_OF_NEUT	WRCHWR2 (DRYTE) WRCHWR2 (DRYTE) WRCHWR2 (DRYTE) WRCHWR2 (14 RYTE CHWR (1 RYTE) NUMRER (3)		F FX_NETTING_CUSTOMER REN_CATEGORY FAX_NUMBER EXT_REF_NO	WRCHWR2() BYTE WRCHWR2() BYTE WRCHWR2() BYTE WRCHWR2() BYTE WRCHWR2() BSBY WRCHWR2(20 BYT	
	DATE_LAT_CR DATE ACV_UNCOLLECTED NUMBER TOD_STATE DATE DOCSMALSTATE DATE DOCSMANCY_DATE DATE DOCSMANCY_DATE NUMBER			SUSPENSE CLS. GENERATE THE LEVEL RECORD_STAT AUTH_STAT	VIACUMARA (1) VIACUMARA (1) RYTE) CHAR (1) RYTE) CHAR (1) RYTE) CHAR (1) RYTE)		CRM_CUSTOMER ESUER_CUSTOMER TREASURY_CUSTOMER CF_CREATION_DATE WAT. BOT	WARCHWAR2 (1 BYTE WARCHWAR2 (1 BYTE WARCHWAR2 (1 BYTE DATE DATE	
	HALTOV CHAR LAST_CCV_CONV_DATE DATE ADDRESS WACH ADDRESS WACH	1 BYTE) WR2 (105 BYTE) WR2 (105 BYTE) WR2 (105 BYTE)		MOD_NO MANER_JD MANER_DT_STAMP CHICKER_JD CHICKER_JD	NUMBER (4) WRCHNR2 (12 BYTH DATE WRCHNR2 (12 BYTH DATE	*	GENERATE MT920 KYC_DETAES STAFF KYC_REF_NO	WECHAR2 (1 BYTE WECHAR2) (1 BYTE WECHAR2) (1 BYTE WECHAR2) (1 BYTE WECHAR2) (1 BYTE WECHAR2) (10 BYT	~
	Relational_1	MERIOSEVER.		ONCE_AUTH	CHAR (1 BYTE)		UTLITY_PROVER_TYPE	userusseen week	¥
	Log								
									Editing
1	🚽 start 🔰 🥭 🗳 🧐) * 🖉 -	- 🎇 F. 🛛 💽 T	. 🔮 F. 🍔 O		🗧 Search Desktop	P [] 🖞 🄇 🖂 🌀 🔎 !	🔊 🛃 🧐 – 7:28 PM –



🖻 D: \Anandan\proj\datamodel 🛛 🗐 🗙								
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ool	s <u>H</u> elp			25				
G Back + 💿 - 🏂 🔎 Search 🎼 Folders 🛄 -								
Address 🛅 D:\Anandan\proj\datamodel								
File and Folder Tasks Image: Constraint of the state Image: Constraint of the state Publish this folder to the Web Image: Constraint of the state Share this folder	Name Core-Customer-1	Size Type File Folder 1 KB DMD File	Date Modified 3/28/2011 7:28 PM 3/28/2011 7:28 PM					
Other Places								
My Documents My Computer My Network Places Details								
datamodel File Folder Date Modified: Today, March 28, 2011, 7:28 PM								



Data Model Getting Started [November] [2017] Version 14.0.0.0

Oracle Financial Services Software Limited Oracle Park Off Western Express Highway Goregaon (East) Mumbai, Maharashtra 400 063 India

Worldwide Inquiries: Phone: +91 22 6718 3000 Fax:+91 22 6718 3001 https://www.oracle.com/industries/financial-services/index.html

Copyright © [2007], [2017], Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.