

# Oracle Fusion Sales Cloud : Extensibility and Visual Builder Studio

Student Guide  
S1113823GC10



**Copyright © 2026, Oracle and/or its affiliates.**

### **Disclaimer**

This document contains proprietary information and is protected by copyright and other intellectual property laws. The document may not be modified or altered in any way. Except where your use constitutes "fair use" under copyright law, you may not use, share, download, upload, copy, print, display, perform, reproduce, publish, license, post, transmit, or distribute this document in whole or in part without the express authorization of Oracle.

The information contained in this document 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.

### **Restricted Rights Notice**

If this documentation is delivered to the United States Government or anyone using the documentation on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software" or "commercial computer software documentation" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

### **Trademark Notice**

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

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

### **Third-Party Content, Products, and Services Disclaimer**

This documentation may provide access to or information about 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 unless otherwise set forth in an applicable agreement between you and Oracle. 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, except as set forth in an applicable agreement between you and Oracle.

1003242026

# Table of Contents

<b>Oracle Fusion Sales Cloud Extensibility and Visual Builder Studio</b> .....	<b>14</b>
Topic Highlights .....	15
Course Audience .....	16
Course Prerequisites .....	17
Course Objectives .....	18
Course Methodology .....	19
Course Materials .....	20
Course Agenda .....	21
<b>Extensibility Framework</b> .....	<b>22</b>
Objectives .....	23
Tailoring Oracle CX Sales .....	24
Predefined Functionality .....	25
Extending CX Sales .....	26
Terms Used .....	27
Oracle Metadata Services (MDS) .....	28
MDS Modifications .....	29
Modification Levels .....	30
Example: Two Users, Two Experiences .....	31
Summary .....	32
<b>Sandboxes</b> .....	<b>33</b>
Objectives .....	34
Technical Challenge and Solution .....	35
Sandboxes .....	36
Why and When to Use Sandboxes .....	37
Creating a Sandbox .....	38
Entering a Sandbox .....	40

Working in a Sandbox: What to Expect .....	42
Object Locking .....	43
Publishing a Sandbox .....	44
Refreshing a Sandbox .....	45
Deleting a Sandbox .....	46
Recommended Practices and Additional Information .....	47
Using the Metadata Manager Tool .....	49
Object-Specific Metadata .....	50
Summary .....	51
<b>Extend a Standard Object .....</b>	<b>52</b>
Objectives .....	53
Objects .....	54
Standard Objects .....	55
Custom Objects .....	56
Field .....	57
Field Types .....	58
System Fields .....	59
Standard Fields .....	60
Custom Fields .....	61
Modifying an Existing Object .....	62
Use Case for Modifying an Existing Object .....	63
Summary .....	64
<b>Fixed Choice List .....</b>	<b>65</b>
Objective .....	66
Fixed Choice List .....	67
Lookup Types .....	68
Lookup Types: Definitions .....	69
Lookup Types: Other Important Attributes .....	70
Dependent Fixed Choice List Fields .....	71

Value Maps .....	72
Summary .....	73
<b>Dynamic Choice List .....</b>	<b>74</b>
Objective .....	75
Dynamic Choice List .....	76
Use Case for Creating Dynamic Choice Lists .....	77
Creating and Editing a Dynamic Choice List Field .....	78
Optimizing Dynamic Choice Lists with Data Filters .....	79
Summary .....	80
<b>Custom Object .....</b>	<b>81</b>
Objective .....	82
Additional Entity Requirement .....	83
Custom Object .....	84
Custom vs. Standard Objects .....	85
Custom Objects: Standard Fields .....	86
Custom Objects: Security .....	87
Custom Objects Security: Available Operations .....	88
Use Case for Creating Custom Objects .....	89
Creating a Custom Object .....	90
Summary .....	91
<b>Child Objects, Related Objects, and Relationships .....</b>	<b>92</b>
Objectives .....	93
Object Relationships .....	94
Top-Level Objects .....	95
Child Objects .....	96
Relationship Cardinality .....	97
Relationship Type .....	98
Reference Relationship .....	99

Many-to-Many Relationship .....	100
Parent–Child Relationship .....	101
Choice List Relationship .....	102
Creating a Child Object .....	103
Child Object Security .....	104
Joins .....	105
Data Modeling: Top-Level Versus Child Object .....	106
Data Modeling: One-to-Many Relationship .....	107
Data Modeling: Many-to-Many Relationship .....	108
Summary .....	110
<b>Visual Builder Studio .....</b>	<b>111</b>
Objectives .....	112
Visual Builder Studio .....	113
Common Tasks in Visual Builder Studio .....	114
Opening Visual Builder Studio .....	115
Summary .....	117
<b>Project and Workspace .....</b>	<b>118</b>
Objectives .....	119
What is a Project? .....	120
Creating a Project .....	121
What is a Workspace? .....	123
Creating a Workspace .....	124
Managing the Git Repository .....	126
Working with Sandboxes .....	127
Project Structure in Oracle VBS .....	128
Summary .....	129
<b>Dynamic Layout, Field, and Field Template .....</b>	<b>130</b>
Objectives .....	131

Dynamic Layouts: Extending the UI with Flexibility .....	132
Impact of Customizing Dynamic Layouts .....	134
Fields Within VBS .....	135
Field Template .....	136
Summary .....	137
<b>Panel Container, Panel Card, and Subview .....</b>	<b>138</b>
Objectives .....	139
Panel Container .....	140
Panel Card .....	141
Subview .....	142
Summary .....	143
<b>Fragment and CX-Picker .....</b>	<b>144</b>
Objectives .....	145
Fragments .....	146
List of Fragments Commonly Used .....	147
CX-Picker .....	148
CX-Picker Operators .....	150
Summary .....	151
<b>What Works Where: App Composer vs. ☐VB Studio in Redwood .....</b>	<b>152</b>
Objectives .....	153
Application Composer - What It Is .....	154
Application Composer - What It Can Do .....	155
Visual Builder Studio - What It Is .....	156
Visual Builder Studio - What It Can Do .....	157
Comparison Table – App Composer vs. VB Studio .....	158
Summary .....	159
<b>Groovy Scripting .....</b>	<b>160</b>
Objectives .....	161

Scripts .....	162
Groovy Syntax .....	163
Groovy Comments .....	165
Add Groovy Variables .....	166
Use Object Fields in Groovy .....	167
Set Object Field Values in Groovy .....	169
Dealing with Null Values .....	170
Expression Builder .....	171
Scripting: Use Cases .....	172
Scripting: Recommended Practices .....	173
Summary .....	176
<b>Object Validation and Trigger .....</b>	<b>177</b>
Objectives .....	178
Object-Level Scripting .....	179
Validation Rule .....	180
Trigger .....	181
Trigger Events .....	182
Recommended Practices for Optimal Performance .....	183
Summary .....	184
<b>Object Function, Global Function, and Smart Action .....</b>	<b>185</b>
Objectives .....	186
Object Function .....	187
Global Function .....	188
Invoke a Function .....	189
Smart Action .....	190
Common Action Types .....	191
Summary .....	192
<b>Accessing Objects in Groovy .....</b>	<b>193</b>

Objectives .....	194
Use an Object's Fields in Groovy .....	195
Object Relationships .....	196
Access Parent Object Fields .....	197
Access Child Object Fields .....	198
Example: Count the Number of Contacts .....	200
Access Dynamic Choice List Fields .....	201
Access 1:M Relationships .....	202
Many-to-Many Relationships .....	204
Access M:M Relationships .....	205
Example: Determine Whether An Account Is Assigned Any Demonstration Assets .....	206
View Objects .....	207
View Criteria .....	208
Additional View Object Methods .....	209
Example: Create a New Demonstration Asset Record .....	210
Example: Delete an Existing Demonstration Asset Record .....	211
Summary .....	212
<b>CX Extension Generator .....</b>	<b>213</b>
Objectives .....	214
CX Extension Generator .....	215
Summary .....	217
<b>Invoking Web Services with Groovy .....</b>	<b>218</b>
Objectives .....	219
Web Service .....	220
SOAP vs. REST for Groovy Script Integrations .....	221
Differences Between RESTful and SOAP Web Services .....	222
Web Service Security: REST .....	223
Web Service Security: SOAP .....	224
Web Service Arguments .....	225

Web Service Response .....	226
Invoke a RESTful Web Service Using Groovy .....	227
1. Register the Web Service .....	228
2. Create the Request .....	229
3. Invoke the Web Service .....	230
4. Parse the Response .....	231
5. Test the Results .....	232
Recommended Scripting Practices for Optimal Performance .....	233
Summary .....	236
<b>Object Workflows .....</b>	<b>237</b>
Objectives .....	238
Object Workflows .....	239
Conditions .....	240
Object Workflow's Object .....	241
Event Actions .....	242
Common Action Settings .....	243
Considerations .....	244
Update Fields .....	245
Create a Task .....	246
Sending an Outbound Message .....	247
Email Notification .....	248
Email Templates .....	249
Business Process Flow .....	250
Invoking a Groovy Script .....	251
Creating an Object Workflow .....	252
1. Exit the Sandbox to Create Necessary Objects, <input type="checkbox"/> Then Re-enter the Sandbox .....	253
2. Create the Workflow and Set the Event Point .....	254
3. Specify the Event Condition .....	255
4. Create Actions for the Workflow .....	256

5. Test the Workflow .....	257
Recommended Practices for Workflow Performance .....	258
Summary .....	260
<b>Rollup .....</b>	<b>261</b>
Objectives .....	262
Rollups — Key Features .....	263
Rollups .....	264
Summary .....	265
<b>Dispatcher .....</b>	<b>266</b>
Objectives .....	267
Dispatcher .....	268
Use Case: Opportunities .....	269
How Dispatcher Works .....	270
Creating a Dispatcher Rule .....	271
Summary .....	272
<b>Routine .....</b>	<b>273</b>
Objectives .....	274
Routines .....	275
Key Components of a Routine .....	276
Supported Objects and Actions .....	277
Scheduling Routines .....	278
Building Rules and Actions .....	279
Managing Routines .....	280
Summary .....	281
<b>Events and Action Chain .....</b>	<b>282</b>
Objectives .....	283
Introduction .....	284
Events .....	285

Event Listeners: The Connectors .....	286
Creating and Managing Event Listeners .....	287
Action Chains: Overview .....	288
Action Chain: Scope .....	289
Creating an Action Chain .....	290
Example: Button Click to Execute Action Chain .....	291
Event, Listener, and Action Chain: How Do They Work Together? .....	292
Summary .....	293
<b>Client-Side Field Rule and Calculation .....</b>	<b>294</b>
Objectives .....	295
What Are Client-Side Field Rules? .....	296
Client-Side Field Rules: Use Cases .....	297
What Are Client-Side Field Calculations? .....	298
Client-Side Field Calculations: Use Cases .....	299
Configuring Rules and Calculations .....	300
Summary .....	301
<b>Drawer .....</b>	<b>302</b>
Objectives .....	303
Introduction .....	304
What is a Drawer? .....	305
Adding Drawers to Your Page .....	306
Controlling Drawer Visibility .....	307
Best Practices for Drawers .....	308
Summary .....	309
<b>Publish and Build .....</b>	<b>310</b>
Objectives .....	311
Publishing Changes to the Mainline .....	312
Deploying Changes to the Production Environment .....	313

Sandbox Versus VB Studio Changes .....	314
Branch Protection: Securing Code Quality .....	315
Reviewing and Publishing Changes .....	316
Jobs in Visual Builder Studio .....	317
Pipelines: Overview .....	318
Publishing and Building: Best Practices .....	319
Summary .....	320
<b>Sales Analytics</b> .....	<b>321</b>
Objectives .....	322
Sales Dashboards and Its Significance .....	323
Sales Dashboard UI: What Users See .....	324
Key Setup Principle .....	325
Content Types You Can Display on Dashboards .....	326
Dashboard Content .....	327
Express Reports: Overview .....	328
OTBI Analyses: Role in CX Sales Analytics Dashboards .....	329
Personalization: What End Users Can Do .....	330
Personalization: Adding Content Rules and Limits .....	331
Practical Guidance: Choosing the Right Tool .....	332
Summary .....	333