

Forms 10g

Section	Title	Page
One	Introduction to Forms	2
Two	Running Forms in 10g	4
	– Starting OC4J Instance	5
	– Run a Form on the Web	9
	– Run Form Parameters	11
Three	Using Forms 10g in a Browser	18
	– Browser Interface	19
	– Browser Menu Bar	20
	– Menu Bar	21
	– Running Forms in the Browser	22
	– Querying Records in Forms 10g	23
	– Query Mode in Forms 10g	25
	– Inserting Records in Forms 10g	26
	– Counting Query Hits	27
	– List of Values	28
	– Editing Values	29
	– Manipulating Records	30
	– Problem with Running Forms in a Browser	32
	– <i>Exercise One</i>	33
Four	Forms 10g Builder Interface	45
	– Topography	48
	– Toolbar	49
	– Object Navigator	50
	– Menus	52
	– PL/SQL Libraries	53
	– Object Libraries	54
	– Built in Packages	55
	– Database Objects	56
Five	Using Forms 10g Wizards	57
	– Using the Data Block Wizard	59
	– Using the Layout Wizard	68
Six	Using Forms 10g	76
	– Saving Modules in Forms 10g	77
	– Opening Modules in Forms 10g	78
	– Running Modules in Forms 10g	79
	– Look and Feel Using Formsweb.cfg	82
	– <i>Exercise Two</i>	84
Seven	The Layout Editor in Forms 10g	87
	– Layout Types	88
	– The Form Layout	89
	– The Tabular Layout	90
	– Layouts	91
	– The Layout Editor in Forms 10g	92
	– Anatomy	93
	– Toolbar	94
	– Formatting Toolbar	95
	– Tool Palette	96
	– Rulers	97
	– Markers and Ruler Guides	99
	– Grid	100
Eight	Objects in Forms 10g	101
	– Introduction to Windows	102
	– Introduction to Canvases	103
	– Content Canvas	105
	– Stacked Canvas	106

Forms 10g

Section	Title	Page
	– Tab Canvas	107
	– Toolbar Canvas	109
	– Canvases on the Object Navigator	110
	– Views of Canvases	111
	– Blocks	113
	– Data Blocks	115
	– Control Blocks	116
	– Items	117
	– Program Units	118
	– Procedures	119
	– Functions	120
	– Packages	121
	– Package Body	122
Nine	Forms 10g Property Palettes	124
	– Invoking Property Palettes	126
	– Anatomy of the Palette	127
	– Palette Toolbar	132
	– Opening Several Palettes	135
Ten	Master-Detail Relations in Forms 10g	136
	– Introduction	137
	– Creating in Forms 10g	138
	– Structure of the Processing	145
	– Appearance in Forms 10g	148
	– Creating Relations Manually	149
	– Attributes	151
	– <i>Exercise Three</i>	152
Eleven	PL/SQL in Forms 10g	159
	– Introduction	160
	– Referencing Forms Items	161
	– Referencing Stored Programs	162
	– Database Stored Programs	163
	– Local Variables	164
	– Referencing Local Variables	167
	– Performing DML	168
	– Forms Packages	169
	– PL/SQL Editor	170
	– Colour Coding in PLSQL Editor	171
	– Compiling Programs	172
	– Compilation Errors	173
	– Commenting Code	176
	– Changing Program Names	177
	– Navigation of Programs	178
Twelve	Syntax Palette	179
	– The Syntax Palette in Forms 10g	180
	– Anatomy of the Syntax Palette in Forms 10g	181
	– Using the Syntax Palette in Forms 10g	183
Thirteen	Triggers in Forms 10g	184
	– Introduction	185
	– Positioning within Forms	186
	– Forms at Form Level	187
	– Forms at Block Level	188
	– Forms at Item Level	189
	– Forms Execution Hierarchy	190
	– Temporarily Disabling Triggers	194
	– Creating Triggers in Forms 10g	195

Forms 10g

Section	Title	Page
	– Implicit Firing	197
	– PLSQL in Triggers	200
	– Key-Others	201
Fourteen	Essential Triggers in Forms 10g	203
	– Validation Triggers	204
	– Post-Change	205
	– When-Validate-Item	206
	– When-Validate-Record	208
	– Block Triggers in Forms 10g	209
	– Post-Block	210
	– Pre-Block	211
	– When-Clear-Block	212
	– When-New-Block-Instance	213
	– Record Events	214
	– Post-Record	215
	– Pre-Record	216
	– When-Create-Record	217
	– When-Database-Record	218
	– When-New-Record-Instance	219
	– When-Remove-Record	220
	– Query Triggers in Forms 10g	221
	– Pre-Query	222
	– Post-Query	223
	– Using Smart Triggers	225
Fifteen	Built-in Packages in Forms 10g	227
	– Introduction	228
	– Message	232
	– Pause	233
	– Form_Trigger_Failure	234
	– Bell	236
	– Synchronize	237
	– Navigation Functions	239
	– Go-Block	242
	– Go-Item	244
	– Next and Previous	246
	– Next_Record and Previous_Record	247
	– Next_Block and Previous_Block	248
	– Next_Item and Previous_Item	249
	– Form_Success	250
	– DML Commands	252
	– Record Selection	253
	– Do_Key	254
	– Logon and Logout	255
	– Cursor	258
Sixteen	Manipulating Attributes of Objects in Forms 10g	260
	– Introduction	261
	– Changing Properties in Forms 10g	263
	– Get_Item_Property in Forms 10g	265
	– <i>Exercise Four</i>	266
Seventeen	Text and Display Items in Forms 10g	270
	– Text Item	271
	– Display Item	272
	– Creating in Forms 10g	273
	– Format Masks in Forms 10g	274
	– Calculated Values in Forms 10g	275

Forms 10g

Section	Title	Page
	– Calculation Mode in Forms 10g	276
	– Summary Calculations in Forms 10g	278
	– Creating in Layout Editor	280
	– Initial Values in Forms 10g	281
	– Control Items in Forms 10g	283
Eighteen	Forms 10g Attributes	285
	– Navigation Attributes	287
	– Database Attributes	288
	– Item Attributes	290
	– <i>Exercise Five</i>	292
Nineteen	Record Groups in Forms 10g	305
	– Introduction	306
	– Creating Dynamic Record Groups	307
	– SQL Style in Record Groups	308
	– Creating Static Record Groups	309
	– Usage of Record Groups	311
Twenty	List of Values in Forms 10g	312
	– Introduction	313
	– Assigning Values	315
	– Creating LOVs	317
	– LOV Wizard	318
	– Query Builder	320
	– Completing the LOV Wizard	329
	– Creating Manually	337
	– Column Mapping	338
	– Attributes of an LOV	339
	– Programmatically Displaying LOVs	341
	– LOV Triggers	342
	– <i>Exercise Six</i>	343
Twenty One	Gui Items in Forms 10g	348
	– Introduction	349
	– Creating a Check Box	350
	– Check Box Triggers	351
	– Check Box Built Ins	352
	– Creating Radio Buttons	353
	– Problems with Radio Groups	356
	– Radio Group Triggers	357
	– Radio Group Built-Ins	358
	– Creating List Items	359
	– Creating Poplists	361
	– Creating Combo Box	364
	– List Item Built-ins	365
	– List Items Triggers	366
	– When-List-Activated	367
	– When-List-Changed	368
	– Push Button	369
	– Push Button Triggers	371
Twenty Two	Mouse Triggers in Forms 10g	372
	– When-Mouse-Up/When-Mouse-Down	375
	– Mouse Movements	376
	– <i>Exercise Seven</i>	377
Twenty Three	IDs in Forms 10g	386
	– Introduction	387
	– Find_Item	388
	– ID_NULL	390

Forms 10g

Section	Title	Page
Twenty Four	Error and Message Handling in Forms 10g	391
	– User Exceptions	395
	– Forms Errors	398
	– Database Errors	400
	– SQL Errors	403
	– Triggers	405
	– On-Error	406
	– On-Message	408
Twenty Five	Alerts in Forms 10g	410
	– Introduction	411
	– Alert Styles in Forms 10g	414
	– Displaying Alerts in Forms 10g	415
	– Alert Built-Ins	417
	– Set_Alert_Property	418
Twenty Six	Timers in Forms 10g	420
	– Introduction	421
	– Creating Timers in Forms 10g	423
	– Modifying or Deleting Timers	424
	– Triggers for Timers in Forms 10g	425
	– Testing Timers in Forms 10g	426
	– <i>Exercise Eight</i>	427
	–	433
Twenty Seven	System Variables in Forms 10g	433
	– Introduction	434
	– Accessing Variables	435
	– Displaying Variables	437
	– Date and Time	439
	– Get_Application_Property	440
	– Set_Application_Property	442
	– Initial Values	443
Twenty Eight	Sub-Classing in Forms 10g	444
	– Introduction	445
	– Dragging and Dropping	447
	– Pathnames	448
Twenty Nine	Object Libraries in Forms 10g	451
	– Introduction	452
	– Creating Object Libraries	453
	– Populating Object Libraries	454
	– Commenting Object Libraries	456
	– Using Object Libraries	457
	– Maintaining Object Libraries	459
	– SmartClasses	460
	– Creating SmartClasses	461
	–	463
Thirty	Variables and Parameters in Forms 10g	463
	– Introduction	465
	– Pre-Defined Parameters	466
	– Using Pre-Defined Parameters	469
	– Dynamic Parameters	470
	– Creating Dynamic Parameters	473
	– Dynamic Parameters Built-Ins	475
	– Global Variables	476
	– Using Global Variables	478
	– Removing Global Variables	481

Forms 10g

Section	Title	Page
Thirty One	Reports in Forms 10g	482
	- Create a new Report Module	485
	- Using an Existing Report Module	486
Thirty Two	Calling Modules in Forms 10g	488
	- Types of Calls	491
	- Open_Form	492
	- Call_Form	496
	- New_Form	500
	- Run_Report_Object	503
	- Closing Called Forms Modules	508
	- Exit_Form	509
	- Close_Form	512
	- Problems	513
	- When-Window-Activated	514
	- Web.Show_Document	515
	- <i>Exercise Nine</i>	516
Thirty Three	PL/SQL Libraries in Forms 10g	522
	- Introduction	523
	- Populating PLSQL Libraries	525
	- Attaching PLSQL Libraries	526
	- Updating PLSQL Libraries	530
	- Missing PLSQL Libraries	532
	- Removing PLSQL Libraries	534
Thirty Four	Generic Coding in Forms 10g	535
	- Introduction	536
	- Name_in	538
	- Copy	540
Thirty Five	Visual Items in Forms 10g	541
	- Image Item	542
	- Read_Image_File	544
	- Image Item Triggers	546
	- Chart Area	547
	- LOBS in Forms	548
	- Using LOBS in Forms	550
	- <i>Exercise Ten</i>	552
Thirty Five	Visual Items in Forms 10g	557
	- Introduction	558
	- Creating Visual Attributes	559
	- Visual Attributes Properties	560
	- Assigning Visual Attributes	561
Thirty Six	Hierarchical Tree Items in Forms 10g	562
	- Introduction	563
	- Creating Tree Items	566
	- Data Structure	570
	- Ftree.Populate_Tree	571
	- Ftree.Get_Tree_Node_Property	572
	- Tree Item Triggers	574
	- When-Tree-Node-Activated	575
	- When-Tree-Node-Expanded	576
	- When-Tree-Node-Selected	577
		- <i>Exercise Eleven</i>
Thirty Seven	Forms Standards in Forms 10g	584
	- Introduction	585
	- Module Naming Conventions	587
	- Object Naming Conventions	588

Forms 10g

Section	Title	Page
	– Block and Items	589
	– Form Templates	591
Thirty Eight	Object Groups in Forms 10g	592
	– Using Object Groups	597
Thirty Nine	Property Classes in Forms 10g	598
	– Introduction	599
	– Creating Property Classes	602
	– Populating Property Classes	604
	– Referencing Property Classes	608
	– Detecting Property Classes	611
	– Removing Property Classes	613
Forty	Editor in Forms 10g	614
	– Introduction	615
	– Creating Editors	616
	– Assigning Editors	617
	– Show_Editor	618
Forty One	Menus in Forms 10g	619
	– Structure of Menus	624
	– Anatomy within Object Navigator	626
	– Attached Libraries	627
	– Program Units and Triggers	628
	– Startup Code	629
	– Menu Item Code	630
	– Menu Editor in Forms 10g	631
	– Anatomy of Menu Editor in Forms 10g	632
	– Menu Editor Toolbar in Forms 10g	633
	– Creating Menus in Forms 10g	634
	– Menu Item Attributes	635
	– Menu Item Types	638
	– Command Types	640
	– Menu Item Code	641
	– Smartbars	642
	– Set_Menu_Item_Property	643
	– Name_in and Copy Functions	644
	– Popup Menus in Forms 10g	645
	– Editing Popup Menus in Forms 10g	646
	– Triggers for Popup Menus in Forms 10g	647
	– <i>Exercise Twelve</i>	648
Forty Two	Database Objects in Forms 10g	652
	– Introduction	653
	– Database Triggers	655
	– PL/SQL Stored Program Units	659
Forty Three	Forms 10g Preferences	660
	– General	662
	– Subclass	663
	– Wizards	664
	– Runtime	665
Forty Four	Forms Debug in Forms 10g	667
	– Breakpoints in Forms 10g	669
	– Creating Breakpoints in Forms 10g	670
	– Running Forms Debug in Forms 10g	672
	– Stack	675
	– Variables	676
	– Watch	677
	– Form Values	678

Forms 10g

Section	Title	Page
	– PL/SQL Packages	679
	– Global/System Variables	680
	– Breakpoints	681
	– Continuing from a Breakpoint	682
Forty Five	Security in Forms 10g	683
	– Access to the Module	685
	– Ability to run the Module	686
Forty Six	Help Facility in Forms 10g	687
	– Online Help	689
	– About Form Builder	693
	– <i>Exercise Thirteen</i>	694

Appendices :

Appendix F1	– SQL Functions
Appendix F2	– SQL Number Formats
Appendix F3	– SQL Date Formats

Delegate Questionnaire

