Customer Care & Billing: Functionality for Implementers Ed 7

Oracle Utilities

DURATION	MODULES	COURSE CODE
10 Days	**11 Lectures**	**—**

Course Overview

This Customer Care and Billing: Functionality for Implementers training provides in-depth information about the customer management product’s configuration. You'll examine each CCB subsystem and discuss the configuration options and how they affect the system’s operation.

What You Will Learn

Oracle Utilities Customer Care and Billing Overview

- Objectives
- The System
- Customer Information
- Sales & Marketing
- Device Management
- Field Work
- Meter Reading
- Billing
- Statements
- Rates
- Payments
- Adjustments
- Credit & Collections
- Budgets
- Deposits
- SA Relationships
- Service Credits
- Contract Management
- Loans
- Conservation Programs
- Framework Utilities

- Integration Tools
- Summary
- The System
- The Format of This Class
- The Documentation
- Caveat
- Summary

Control Central and User Interface Standards

- Objectives
- Practice 2-1
- The Anatomy Of All Pages
- Control Central
- Control Central Search Facilities
- Invoking Help
- Help: Finding Information
- Find a Customer/Premise
- The Dashboard
- Dashboard + Account Information = 360-Degree View of the Customer
- Portals Versus Fixed Pages
- Portals Have Zones
- Portal Preferences
- New Zones Appear in Account Information
- Dictating Portal Preferences
- The Dashboard Is a Portal Too
- Zone Patterns
- Explorer Zone Layout
- Broadcasting
- Explorer Zones May Have End-User Filters
- Dragging and Dropping
- Work Lists
- Working the List
- Starting Business Processes
- Practice 2-2
- Map Zones
- Section and Element Help
- Explorer Zones Are Configured, Not Programmed
- Special-Purpose Zones
- Special Feature – Timeline Zone
- More Special Feature Zones
- You’ve Seen Several BPA Scripts
- The BPA Menu
- BPA Scripts Are Everywhere
- BPA Scripts Reflect An Organization
- Scripts Are Configured

- Fixed Pages
- Object Maintenance Pages
- Search Pages
- Other Pages
- Some Transactions Use Both Metaphors
- Portal-Based Maintenance is Becoming More Common
- Why Evolve?
- Menu and Admin
- Context Menus
- Context Menu – Opening a Search Page
- Context Menu – Opening a Portal
- Practice 2-3
- Grids
- Scrolls
- Search
- Recap of General Layout
- Recap of Dialogs
- Demo Versus Empty Install
- A Configuration Tools Example
- The Configuration Tools Class
- Summary
- Review Questions

Metadata and Framework Overview

- Objectives
- Agenda
- Oracle Utilities Application Framework Overview
- Oracle Utilities Application Framework
- Browser UI Activities
- Web Server Activities
- Web Application Server Breakdown
- Application Server Activities
- Database Server Activities
- Entity Relationship Diagramming (ERD)
- Information Is Stored in Tables, Each Box In An ERD Is a Table
- Color-Coding Highlights the Subsystem Where the Table’s Rows are Typically Maintained
- The PowerPoints Use Color-Coding To Group Tables into Logical Subsystems
- We use ERDs To Highlight Important Business Relationships
- Relationships Between Entities Are Highlighted with Arrows Between Boxes
- Dashed Lines Represent Columns on Entities With Predefined “Lookup” Values
- The Table and Field Metadata
- The Application Viewer Is Your Primary Documentation of Tables and Fields
- The Application Viewer Is Generated from Metadata
- Practice 3-1
- No Recurring Groups

- Prime Keys
- Prime and Foreign Keys In The Application Viewer
- Very Little (Almost No) Redundant Data
- Language Tables
- XML Extensions
- MO Definition
- Why MOs?
- MO, Table, Field Metadata
- MOs Are Also In the App Viewer
- MOs Encapsulate Core Business Rules
- Maintenance Objects Versus Business Objects
- A Maintenance Object Has Fields, A Business Object Has Elements
- A BO’s Elements Must Physically Reside Somewhere in its MO’s Tables
- BOs Encapsulate Core Business Rules
- BOs and SOA
- Older MOs = Object Maintenance Newer MOs = Portal Maintenance
- Plug-in = Algorithm
- An Algorithm Example
- Use a Base Package Plug-In or Write Your Own
- Creating a New Plug-In
- Some Objects Are Preconfigured
- The Application Viewer Also Contains Algorithms
- Practice 3-2
- User-Defined Fields Extend …
- Many MOs Support Characteristics
- There Are Four Types of Char Types
- Predefined Char Types
- Ad Hoc Characteristic Types
- Foreign Key Reference Characteristic Types
- File Location Characteristic Types
- Characteristic Values Are Effective-Dated on some Entities
- A Char Type Can be Used on Multiple Entities
- Practice 3-3
- Owning Metadata
- Owner Flag ERD
- Owner Flag Is Ubiquitous
- The System Stamps Owner Flag On New Metadata Rows
- Don’t Even Think About It
- Practice 3-4
- Web Services Architecture
- XAI / Web Services
- More Web Services Information
- Database and Operating System Security
- Application Services Are Secured
- Application Services Have Valid Actions
- Field-Level Security

- Field-Level Security Overview
- Security Rights Are Cached
- Practice 3-5
- Audit Trails
- Localization Support
- Isolating Implementation-Specific Business Rules
- The Conversion Tool
- Review Questions

Batch Processing

- Objectives
- Batch Processes
- Batch Processes Are Documented In the Application Viewer
- What You Can Count On
- Errors
- Parallel Processing
- Optimal Number of Threads
- Parameters
- Batch Processing ERD
- Practice 4-1
- Separate Application Servers
- Submitting Ad Hoc Requests
- Practice – Instructor-Led
- Batch Process Dependencies
- Classic Batch Job Versus Sample and Submit
- Step 1: Identify the Batch Job
- Step 2: Enter the Criteria
- Step 3 (optional): See the Sample
- The Request
- How To
- Some Processes Can Be Viewed as Plug-Ins
- Review Questions

Maintaining Customer Information

- Objectives
- Customer Information
- Customer = Person and Account
- Practice 5-1
- Important Person Concepts
- Person ERD
- Person Contacts
- Practice 5-3
- Important Account Concepts
- Account ERD
- Practice 5-2

- Customer Contact: Overview
- Customer Contact ERD
- Practice 5-4
- Customer Contacts Trigger To-Do Entries
- Customer Contacts Trigger Letters
- Letter Images
- Important Premise Concepts
- Premise ERD
- Important Service Point Concepts
- Types of Service Points
- Metered Service Points
- Badged Item-Based Service Points
- Unbadged Item-Based Service Points
- Two Ways to Handle Area Lights: Badged or Unbadged
- Service Point ERD
- Practice 5-5
- Review: Bills Are Sent to Customers
- A Bill Contains Charges for Services
- An Account Must Have a Service Agreement For Every Service That Is Billed
- Some SAs Are Linked to Premises via SPs
- Some SAs Are Not Linked to Premises
- Service Agreement ERD
- Account Security: Overview
- Persons Can Also Be Secured
- Premises Can Also Be Secured
- Data Access Groups and Roles
- An Account’s Access Group
- More Account Security Information
- The V Diagram
- Two SAs, Each Linked to a Single SP (A Normal, Single-Family Residence Scenario)
- Two SAs Linked to the Same SP
- One SA linked to Two SPs (To Consolidate Consumption Charges)
- Typical Family Moves
- Non-Utility Customer
- Customers Share One Line, Usage Goes Through One Meter on the Way to Another Customer
- Corporate Pays For Usage, Operating Units Pay For Transport & Metering
- SA Type and SP Type Control the Valid Relationships
- Most SAs Are Created Via Start Service
- Start Options Control Default Values
- Practice 5-6
- Service Agreement States
- Activating Pending Start SAs
- Important Service-Oriented Concepts Still to Come
- The Alert Zone
- The Control Central Alert Plug-In Spot
- Jurisdictional Rules

- Division = Jurisdiction
- Replicators
- Alternate Names and Addresses
- Address Validation
- Configuring Address Validation
- Address Validation BPA
- Introducing Custom Address Validation Logic
- Account Management
- Account Management Portal – Account Update
- Supported Account Updates
- Supported Service Agreement Updates
- Notification Preferences
- Notification Preferences: Key Relationships
- Notification Preferences Management Process Overview – Enabling Customer Choice
- Push versus Subscription Notification Types
- Push-Based Notifications
- Account – Account Portal: Push Communications Preferences Zone
- Subscription-Based Notifications
- Account – Account Portal: Subscription Communication Preferences Zone
- Account – Persons: Notification Preferences
- Account – Account Portal: Maintaining Contact Details
- Master Configuration
- Practice 5-7
- Review Questions

To Do Lists

- Objectives
- Oracle Utilities Customer Care and Billing
- What Is To Do Processing?
- To Do Summary
- To Do List
- To Do Summary Zone
- Practice 6-1
- To Do Type
- Message
- To Do Roles
- Special Message Handling
- Role Assignment
- How Entries Are Created
- Batch Process
- The Creator Supplies Other Attributes
- Filling In The Blanks
- To Do Entry Summary ERD
- Practice 6-2
- Related To Do’s
- Related Entries Are Also Shown in the Dashboard

- Related To Do ERD
- Practice 6-3
- To Do Entry Lifecycle
- Forwarding
- Manual Completion
- Batch Processes Can Complete Entries
- To Do Entries Have Logs
- Log Entries
- To Do Search Is Powerful
- Practice 6-4
- Entry Priority
- Priority Assignment
- Priority Updates: Scenario
- Assigning Entries to Users
- On Demand Assignment
- On Demand – How It Works
- Skill-Based Assignment: Overview
- Skill Level ERD
- Skill Level Override for a Specific Message ERD
- Skill-Based Summary
- The Benefits
- Supervisor Push
- Summary of Entries by User
- Supervisor Assignment
- Pick and Choose
- Multi-Use Pages
- Practice 6-5
- To Do Entries May be Routed To an External System
- Configuration to Implement External Routing
- Practice 6-6
- To Do Types Are Documented in the Application Viewer
- What To Do Entries Aren’t
- Purging Old Entries
- Review Questions
- Creating New To Do Types
- Introducing a New Type of Entry Involves the Following Steps
- Analysis Example: Account has active SAs, but has no bill cycle
- Example Setup: Account has active SAs, but has no bill cycle
- Example Programming: Account has active SAs, but has no bill cycle
- 7a Sales & Marketing
- Objectives 7a-2
- Sales & Marketing 7a-3
- Definitions 7a-4
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- What Just Happened? 7a-6
- The Order’s Campaign Controls Many Things 7a-8

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Column-Oriented Q&MFs can Cause Fields on Almost any Object to be Created or Updated 7a-57

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Maintaining Meters and Items

- Objectives
- Checkpoint
- Review: Service Points Define Services at a Premise
- Review: There are Three Types of Service Points
- Review: Metered Service Points
- A Meter’s Registers Measure How Much Was Used
- Every Register Has Many Attributes
- A Register’s Attributes Can Change Over Time
- Meter ERD
- There Are Many Ways to Identify a Meter
- Service Types Must Be in Sync ERD
- Practice 8-1
- A Configuration’s Registers Are Read
- Subtractive Versus Consumptive Registers
- Meter Read ERD
- Important SP/Meter Installation Concepts
- Meter Installation ERD
- Practice 8-2
- How to Exchange the Meter at an SP
- Remember That There Are Two Types of Item-Oriented SPs
- This Discussion Concerns Badged Items
- When to Use a Badged Item
- Badged Item ERD
- There Are Two Ways to Identify a Badged Item
- Item Replicator
- Important SP/Item Installation Concepts
- Item Installation ERD
- Important Item Exchange Concepts
- Unbadged Items Are an Alternative
- Meter/Item Search Page
- Practice 8-3
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- Objectives 9a-2
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- Objectives 9b-2

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- Limiting the Number of Appointments 9b-9
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- Practice 9-2: Scheduling and Cancelling Appointments 9b-19
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- 10a Devices Inventory and Testing: Equipment Management
- Objectives 10a-2

Equipment, Meters, and Items Are Installed at a Premise to Regulate and Measure Service 10a-3

- There are Two Types of Items 10a-4
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- Asset Stock Location History ERD 10c-7
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- Manually Changing an Asset’s Stock Location 10c-9
- Practice 10-1 10c-10
- Review Questions 10c-11

Meter Reading

- Objectives
- There are Many Sources of Meter Reads
- Meter Read ERD
- Meter Read Remarks Can Trigger Other Events
- Consumption Estimation Is in a Plug-In
- Important Estimation Concepts
- How Does MR EST TREND Work?
- An Example: Estimating Consumption for February
- An Example: Estimating Non-Peak Consumption
- An Example: Estimating Peak Consumption
- Trend ERD
- Ensuring a Statistically Significant Sample
- Trend Is Updated in Batch
- High/Low Limits Are Calculated in a Plug-In
- High/Low Check Plug-In
- High/Low Factor ERD
- Failing High/Low and Use on Bill
- Reviewing Readings That Failed High/Low Checks
- Practice 11-1
- Review Questions

Route Management and Field Activity Upload

- Objectives
- Important Service Cycle Concepts
- SP Type Controls The Number of Cycles on a Service Point
- Single Service Cycle ERD
- SPs Also Need a Route and Sequence
- Renumbering Service Points in a Route
- Transferring a Route
- Practice 12-1
- Downloading Meter-Read Requests
- When Cycle and Route Frequency Differ
- The Three Download Batch Processes
- Process MSR: Create MR Schedule Routes
- Process MDS: Create Download Staging

- Process MDL: Create Download Flat File
- The Source of the Batch Control
- Summary: Meter Read Download ERD
- Important! The Service Cycle Schedule Is Also Used by Billing
- Practice 12-2
- The Upload Processes
- Process X: Populate Upload Staging
- Process MUP1: Populate Meter Config
- Process MUP2: Create Meter Reads
- Important: The MR Upload Has Other Uses
- Purging Upload Records
- Practice 12-3
- Demo Database Contains a Sample Transaction
- Find a Scheduled Date for a Route Zone
- See Service Points in a Route for a Scheduled Selection Date Zone
- See Register Reads in a Route for a Scheduled Selection Date Zone
- Multiple Service Cycles
- Waste Collection Background Information
- Multi-Service Cycle ERD
- Waste Collection Scenario 1
- Waste Collection Scenario 2
- The Three Download Batch Processes
- Service Route Download ERD
- Field Order Completion Details Can Be Uploaded
- Step Types That Are Supported By the Batch Completion Process
- The Upload Processes
- Process X: Populate Upload Staging
- Processes MUP1 and MUP2: Create Reads
- Process FACOMPL: Complete Field Activities
- Process FACOMPL: Complete Field Activities – Errors
- Purging Upload Records
- Uploading “Generic” Step Types
- Review Questions

Financial Transactions

- Objectives
- FTs Determine an Account’s Balance
- Source of FTs
- Bill Segments Create FTs
- Payment Segments Create FTs
- Adjustments Create FTs
- Practice 13-1
- Current Balance Versus Payoff Balance
- Every FT Contains Current Amt and Payoff Amt
- Practice 13-2
- Examples When Current Balance Does Not Equal Payoff Balance

- GL Details
- Examples of FTs Without GL Details
- How Old is the Debt?
- Specific Days are Shown on Several Transactions
- Arrears Date
- Arrears Date is Typically Populated by Billing
- Practice 13-3
- FT Algorithms Control how FTs are Created
- FT Status
- FTs Affect More Than Balances
- Updating the General Ledger
- The the GL Download Processes
- Process GLASSIGN
- Process GLS: Prepare FTs for Download
- Process GLDL: Create Download Flat File
- Practice 13-4
- Overview of Balance Control
- The Balance Control Batch Processes
- Process BCGNEW: Create a New Balance Control Group
- Process BCASSIGN: Assign New FTs a Balance Control Group
- Process BCGSNAP: Insert Balance Control Members And Check Financial Integrity
- Review Questions
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Managing Statements

- Objectives
- Checkpoint
- A Statement Consolidates SA FTs
- Statements Can Also Be