Oracle Mobile Application Framework (MAF)Online Training

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Training Purpose

During the training, we will be covering a series of practices that will help in understanding the implementation concepts of Oracle MAF that includes the MAF component and Task flows, Cordova plugins etc. By the end of the training, trainees will develop skills to build out new mobile apps, configure the user interface and deployment of the app to the platforms like android/iOS.

We will also be developing a sample app using MAF and which that help in understanding the functional and practical aspects of the tool.

Training Audience

- Solution Architect
- Application Developer
- Developer
- Implementation Consultant
- ❖ ADF Developer
- Java Developer
- Technical Consultant

Course Content

I. Mobile Development & Mobile Application Framework : Introduction

- Mobile challenges and enterprise concerns
- Designing for mobile
- Hybrid mobile applications
- HTML5, Java, and JavaScript
- Device native user experience
- Framework features
- ❖ MAF Extension for JDeveloper or OEPE
- Android SDK tools

II. Building Features in a MAF Application

- Features, feature content, and constraints
- Views and control flows
- Accessing user, device, and hardware properties
- ❖ Features at design time; constraints level: feature or content
- Springboard, Navigation bar
- Device access
- Remote URL
- HTML content

III. Developing Simple Mobile User Interface

- Facets, including header, primary, secondary, and footer
- Component framework
- AMX tags
- Data controls
- Output text and input text
- Layout components, including panel splitter, table layout, row layout, and cell layout
- Command buttons and links

IV. A Closer Look at Developing a MAF UI

- Managed beans
- Configuration files
- Bean Scope, including application, page flow, and view
- Expression Language in code and properties
- Pop-ups
- ❖ Popup component and Show Popup Behavior operation
- Navigation transition

V. Displaying Complex Data with Visualization Components

- Charts
- Gauges
- Geographic maps
- Thematic maps
- Map types
- Custom maps

VI. Working with Remote & Local Data

- ❖ Mechanisms that are used to create data controls from web services
- Consuming SOAP and REST web services
- ❖ Accessing data in an on-device SQLite database
- Using POJOs to indirectly access web services and exposing them as data controls

VII. Using Non-Declarative Programming Techniques

- Identifying non-declarative programming scenarios in MAF
- Working with framework utility classes and common programming use cases
- * Refreshes to the user interface using provider and property change events
- Invoking the binding layer from Java

VIII. Securing MAF Application

- Security features available in MAF
- Supported security scenarios
- Enabling authentication security for the application
- Configuring user authorization inside an application
- ♦ How Oracle Access Manager supports Mobile Services and Social Identity
- Using a whitelist to establish which URLs open in the application's embedded browser or in the default browser of the device

IX. Implementing Standards by Reusing Application Artifacts

- Constructing and reusing template-like fragment components for a consistent look and feel across MAF applications
- Designing and developing a page fragment that includes both static and dynamic content
- Consuming a page fragment in a page, using attribute values as parameters to the page
- Classifying and defining common features, and then archiving and consuming them
- Archiving applications for redistribution

X. Deploying & Debugging MAF Applications

- Options for archiving an application
- Creating and modifying deployment profiles for both device platforms
- Deploying applications to Android and iOS platforms
- Using logging APIs to diagnosis and fix application problems
- Running the application in debug mode and debugging Java code from the JDeveloper IDE
- Debugging JavaScript, HTML, and style sheets

Software Required

- Oracle JDeveloper
- Oracle MAF extension for JDeveloper
- ❖ Android Studio/SDK
- **❖** JDK 1.8+

Hardware Required

- Intel i3/i5 processor
- ❖ Min. 16 GB RAM

Training Material

- Sample App from scratch build using Oracle Mobile application framework.
- Code of the mobile app.
- Hands on instructions document on mobile app.
- Lab hands on