

## **299 – WestLake Capstone: Flex 3 with Flex Builder**

### **Understanding Rich Internet Applications**

- Understanding the Evolution of Computer Applications
- Breaking Away from Page-Based Architecture
- Identifying the Advantages of Rich Internet Applications
- RIA Technologies

### **Getting Started**

- Getting Started with Flex Applications Development
- Creating a Project and an MXML Application
- Understanding the Flex Builder 2 Workbench
- Running your Application
- Creating a Second Application Page and Working in Design Mode
- Getting Ready for the Next Lesson

### **Laying Out the Interface**

- Learning about Containers
- Laying Out the E-Commerce Application using Design Mode
- Getting Ready for the Next Lesson

### **Using Simple Controls**

- Introducing Simple Controls
- Displaying Images
- Building a Detail View
- Using Data Binding to Link a Data Structure to a Simple Control
- Using a Form Layout Container to Lay Out Simple Controls
- Adding Radio Buttons and Date Fields to the Dashboard

### **Handling Events and Data Structure**

- Understanding Event Handling
- Building a Data Structure on the creationComplete Event
- Using Data from the Event Object
- Building a Custom ActionScript Class
- Building a Method to Create and Object
- Building Shopping Cart Classes

### **Using Remote XML Data with Controls**

- Retrieving XML Data with HTTPService
- Retrieving XML Data via HTTPService
- Populating an ArrayCollection with HTTPService Data
- Populating a ComboBox Control and Programmatically Adding an Option
- Using XML Data with a Tree Control
- Retrieving XML Data and Transforming It into an ArrayCollection of Custom Objects

- Using Binding with Complex Data Structures
- Manipulating Shopping Cart Data
- Adding Remove Button

## Creating Components with MXML

- Introducing MXML Components
- Creating an Update/Delete Product Component and Instantiating It
- Popping Up Product Information When Clicking the Update and Delete Buttons
- Creating Another Value Object
- Creating a Data Manager Component
- Implementing Add Product Functionality
- Creating and Using a Component for the Dashboard Application

## Using Controls and Repeaters with Datasets

- Using Datasets
- Displaying the Categories Using a HorizontalList and an itemRenderer
- Displaying Grocery Products Based on Category Selection
- Coding States to Display Detailed Product Information
- Placing Products in the Shopping Cart

## Using Custom Events

- Understanding the Benefits of Loosely Coupled Architecture
- Dispatching Events
- Declaring Events for a Component
- Identifying the Need for Custom Event Classes
- Building and Using the ProductEvent Class
- Understanding Event Flow and Event Bubbling

## Creating Custom Components with ActionScript 3.0

- Introducing Building a Component with ActionScript 3.0
- Creating the Structure of the Class
- Overriding the createChildren() method
- Sizing and Positioning in Flex
- Understanding the measure() Method
- Overriding the updateDisplayList() Method

## Using DataGrids and Item Renderers

- Introducing DataGrids and Item Renderers
- Adding and Generic DataGrid to ChartPod
- Adding HTTPService calls to Dashboard
- Displaying the Shopping Cart with a DataGrid
- Using AdvancedDataGrid

## Working with Web Services

- Introducing Server Communication
- Using the Event Model Remote Server Calls

- Configuring an Application to Work Locally
- Using a Web Service in the DataEntry Application
- Using the Web Service Introspection Wizard
- Using the Generated Code in Your Application
- Refactoring with Flex Builder
- Completing the Integration of the Generated Code
- Updating and Deleting Products

## Accessing Server-Side Objects

- Uploading Files to the Server
- Using RemoteObject to save an Order
- Mapping ActionScript Objects to Server Objects
- The Flex Builder Data Wizard

## Visualizing Data

- Exploring Flex Charting Components
- Laying Out Initial Charts
- Populating Charts
- Adding Legends to Charts
- Limiting the Labels Shown on an Axis
- Adding Chart Events
- Adding Animations to Charts
- Customizing Chart Appearance with Styles

## Debugging Flex Application

- Introducing Debugging Techniques
- Watching Client/Server Data Exchange
- Learning More about the Debugger
- Handling Errors with try-catch

## Profiling Flex Applications

- Flash Player Memory Use
- Memory Profiling a Flex Application
- Performance Profiling a Flex Application