



# Flex 4: Level 1

## Developing Rich Internet Applications

**Duration: 3 Days | 24 Hrs**

Developing Rich Internet Client Application provides experienced application developers with hands-on, practical experience using Flex. This three day course introduces developers to all the primary features of Flex they'll need to know in orbuild a fully functional, well architected front end for a Rich Internet Application (RIA). Flex 4: Level 1

### Audience

This course is designed for application developers who want to bring the power of Rich Internet Applications to their web applications. To gain the most from this class, you should:

- Be familiar with an object oriented programming language such as java or C++
- Be familiar with XML terminology



## Course Outline

### Unit 1: Introducing the Course

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- Introducing mastery learning
- Understanding the course format
- Reviewing the course prerequisites
- Reviewing the course outline

### Unit 2: Introducing Adobe Flex 4

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- Introducing the Adobe Flash Platform
- Understanding Flex development technologies
- Understanding Flex application deployment
- Exploring the Flash Builder interface
- Creating a Flex project

### Unit 3: Understanding Flex 4 Fundamentals

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- Understanding Adobe Flex namespaces
- Understanding Flex components
- Laying out and styling with Flash Builder
- Compiling and running an application
- Creating custom component
- Introducing skinning
- Accessing and using structured data within a custom component
- Introducing data binding
- Updating visual controls using dynamic data

### Unit 4: Introducing Object Oriented Programming

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- Introducing OOP terminology
- Understanding MXML classes
- Creating a class property
- Writing a class definition in ActionScript
- Creating instances of an ActionScript class
- Creating class methods



## Unit 4: Understanding Components and Layouts

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- Introducing visual components
- Introducing Spark layout classes
- Introducing the Spark container classes
- Using constraints to control component layout
- Adding scrollbars to containers

## Unit 5: Handling Events

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- Understanding events
- Implementing event handlers
- Creating ActionScript event handler functions
- Understanding the event object
- Understanding event bubbling
- Adding event listeners with ActionScript

## Unit 6: Validating and Formatting Data

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- Using the Form container
- Using formatters
- Validating form data
- Triggering validation with events
- Triggering validation with ActionScript

## Unit 7: Controlling Navigation

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- Understanding MX navigator containers
- Using the ViewStack container
- Using a Spark container inside MX navigator containers
- Creating custom navigation for the ViewStack container
- Using the TabNavigator container
- Using the Accordion container



## Unit 8: Controlling Application State

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- Understanding view states
- Controlling view states

## Unit 9: Animating Components and States

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- Applying effects to components
- Applying transitions to application state changes
- Creating composite effects
- Adding and removing components during animations

## Unit 10: Controlling Visual Display with Styling

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- Creating global application styles
- Introducing Advanced CSS selectors
- Defining styles and skins for components

## Unit 11: Skinning Spark Components

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- Introducing skinning
- Changing the default display of skin parts
- Incorporating visual elements drawn in other programs

## Unit 12: Implementing Advanced Skinning Techniques

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- Implementing different visual states for a skin
- Adding scrollbars to skins
- Accessing custom component properties from a skin



### Unit 13: Accessing Remote Data

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- Using HTTPService to load remote data
- Handling returned data and faults
- Making HTTP requests with parameters
- Using the wizards

### Unit 14: Creating a Typed Data Model

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- Understanding the need for a typed data model
- Creating an ActionScript class for typed data
- Populating an ArrayCollection with value objects
- Understanding data bindings with value objects
- Refactoring value objects

### Unit 15: Extending Events

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- Understanding the problem with bindings
- Defining the event type
- Handling the event in the main application
- Extending the Event class
- Using the extended event class
- Dispatching a value object with the extended event
- Overriding the clone method

### Unit 16: Rendering Content with the DataGroup Container

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- Displaying string data in an item renderer
- Passing UI components in the data provider
- Creating a custom item renderer
- Using the SkinnableDataContainer



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Know Tomorrow Today

#### Unit 17: Displaying Data Using the DataGrid

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- Using the DataGrid control
- Specifying DataGrid control columns
- Formatting DataGrid control columns
- Using item renderers and item editors
- Inline item renderers and item editors
- Item renderer and item editor components
- Using events and selected items with a DataGrid component

#### Unit 18: Deploying Flex and AIR Applications

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- Compiling the Flex application
- Creating a Flex application production build
- Creating a desktop application



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