



Advanced Salesforce Development (SPDEV-503)

Course ID #: 6510-410-00-w

Hours: 40

Course Content

Course Description:

Stony Point developed this class to help experienced software developers quickly learn the basics of Apex and Visualforce and best practices for integrating Salesforce with other systems. This class is an alternative to the Programmatic Development using Apex and Visualforce (DEV450) and Integrating with Force.com (DEV-502) classes offered by Salesforce. The Stony Point version of the class offers relevant, real world programming examples and costs less.

A student successfully completing this class will be prepared for the Salesforce Certified Platform Developer I exam and the Salesforce Certified Platform Developer II exam.

This class is delivered by a senior instructor with many years of real world programming experience and will cover the following topics:

- The fundamentals of declarative development on the Force.com Platform including custom and standard objects, fields, security, workflow, approval processes, and validation rules
- Working with common Force.com development tools, including but not limited to: the Force.com IDE, Developer's Workbench, Developer Console
- Understanding the software development lifecycle on the Force.com platform and utilizing the Metadata API, Unmanaged Packages, Managed Packages and Change Sets
- Apex fundamentals, including but not limited to: developing Apex triggers, developing Visualforce custom controllers and controller extensions using Apex, developing email services using Apex, sending emails using Apex and Workflow, and developing test methods.
- Visualforce fundamentals, including but not limited to: Consuming standard and custom controllers and controller extensions using Visualforce, utilizing CSS within Visualforce pages, embedding a Salesforce chart on a Visualforce page, utilizing Field Sets, and embedding a Visualforce page in a dashboard
- Salesforce integration techniques including but not limited to: Salesforce to Salesforce, consuming external REST web services using Apex, developing SOAP web services with Apex, developing REST web services with Apex, the Streaming API, utilizing Force.com Sites to build unauthenticated REST web services

As a participant in the classes, each student will be given a practice learning environment to use during hands-on exercises during the class. The student will be able to use this learning environment indefinitely after the class without any additional fee.

Prerequisites:

- Force.com Developer or Salesforce Certified Administrator certification
- Introduction to Salesforce Administration & Configuration (SPADM-203) class or equivalent experience



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Topics:

Day 1

- Agenda & Course Overview
- Introduction to GenWatt
- Setting up a Practice Site
- Setting up the Force.com IDE
- Salesforce Security Review
- Working with the Force.com IDE
- SOQL
- Model – View - Controller

Day 2

- Declarative Programming Review
- Apex Fundamentals
 - Syntax
 - Structure
 - Patterns
 - DML
- Developing Apex Triggers
 - Updating Records
 - Creating Records
 - Sharing Records
- Debugging

Day 3

- Apex Classes
 - Syntax
 - Unit Testing
- Batch & Scheduled Apex
- Visualforce fundamentals
 - Syntax
 - Structure
- Developing Visualforce Pages & Controllers
 - Controllers (Standard, Extensions, Custom, Standard Set)
 - Custom Controllers
 - Controller Extensions
- Inserting Visualforce into the User Interface
- Sending emails using Apex and Workflow

- Using transition pages

Day 4

- Advanced Visualforce
 - Dynamic, dependent picklists
 - Visualforce Components
 - Developing
 - Passing & consuming parameters
 - Visualforce in Dashboards
 - Charting
 - Building a Content Management System with Visualforce
- Integrations Overview
- Salesforce Integration Technologies
 - REST API's
 - SOAP API's
 - Salesforce to Salesforce
- Security, Authorization and Authentication
 - Force.com Security
 - Remote Sites
 - Single Sign-on
 - OAuth2
- Developer Workbench

Day 5

- Force.com SOAP API
 - Overview of the SOAP API
 - Retrieving Data with SOQL
 - Enterprise WSDL
 - Partner WSDL
 - Developing a custom SOAP Web Service
 - Consuming a custom SOAP Web Service
- REST Overview
- JSON Basics



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- Force.com REST API
 - Overview of the REST API
 - Retrieving Data with SOQL
 - Developing a custom REST API
 - Consuming a custom REST API
 - Parsing JSON
- Force.com Streaming API
 - Overview of the Streaming API
 - Consuming the Streaming API
- Email Services
 - Developing an Email Service
 - Consuming an Email Service
- Force.com Sites
 - Developing a Force.com Site
 - Developing an unauthenticated REST Web Service using Visualforce
 - Consuming an unauthenticated REST Web Service