Build Applications Programmatically on the Salesforce Platform

Duration: 5 Days   Course Code: DEX-450   Delivery Method: Virtual Learning

Overview:

Learn how to customize and design applications programmatically on the Salesforce Platform. In this 5-day class, our platform experts will introduce you to Apex (Salesforce's programming language) and Visualforce markup, so you can customize your Salesforce applications using code and explore how Apex interacts with declarative customizations on the platform. Learn how to retrieve, manipulate, and store data programmatically in data objects (sObjects), write and test custom logic, write Visualforce pages to customize your user interface, and deploy your solutions to another environment. Get an overview of the declarative automation tools available on the platform and a brief introduction to the Lightning Component framework. Plus, explore the nuances of working on a multi-tenant platform so you can extend the platform to meet business demands.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

This course is designed for programmatic developers looking to write programmatic customizations to both business logic and UI layers using Apex and Visualforce. You should have a good understanding of core object-oriented programming concepts and experience building declarative solutions on the Salesforce Platform. This course is also a great foundation builder if youre looking to earn your Salesforce Platform Developer I credential.
IMPORTANT: Students are expected to follow the steps detailed in the Computer Set-up Guide for this class if youll be using your own computer when attending a virtual or in-person class.

Objectives:

- **When you complete this course, you will be able to:**

- Learn modern tools for developing on the Salesforce Platform using Visual Studio Code, the Salesforce Extension Pack, and the Salesforce CLI.

- Write business logic customizations using Apex triggers and classes; those customizations will use SOQL and DML.

- Design programmatic solutions that take advantage of declarative customizations.

- Describe how your trigger code works within the basics of the Save Order of Execution.

- Describe some of the fundamental aspects of designing programs on a multi-tenant platform.

- Write Visualforce markup and code to customize the user interface.

- Use the built-in testing framework to test Apex and Visualforce.

Content:

Declarative Automation

- Create

Formula Fields

- Create Roll-Up Summary Fields
- Understand Record Types
- Review Other Automation Tools
- Build a Data Model on the Salesforce Platform

Programming with Apex

- Describe Key Aspects of Apex That Differentiate It from Other Languages, Such as Java and C#
- Describe Why Apex Transactions and Governor Limits Must Be Considered When Writing Apex
- Execute Simple Apex
- Use the sObject Data Type, the Primitive Data Types, and Basic Control Statements in Apex

Using SOQL and SOSL to Retrieve Your Orgs Data

- Write a Basic Query Using Salesforces Query Language, SOQL
- Process the Result of a Query in Apex
- Create a Query Dynamically at Run-Time
- Use SOQL to Query Parent-Child Relationships
- Describe a Relationship Query
- Write a Query That Traverses a Child-to-Parent Relationship
- Write a Query That Traverses a Parent-to-Child Relationship
- Use SOSL to Search Data

Using DML to Manipulate Your Orgs Data

- List the Differences Between the Ways You Can Invoke DML Operations
- Write Apex to Invoke DML Operations and Handle DML Errors

Deployment

- What Is Deployment?
- Deploy Code Using Change Sets
- Use the Ant Migration Tool
- Review Managed and Unmanaged Packages
- Explore Salesforce DX

Trigger Essentials

- Describe What a Trigger Is Used For
- Describe the Syntax of a Trigger Definition
- Use Trigger Context Variables

Apex Class Essentials

- Describe How Apex Classes Are Used
- Define an Apex Class
- Determine What Data an Apex Class Can Access

The Save Order of Execution, Apex Transactions, and Platform Events

- Describe Key Points in the Order of Execution
- Describe How Triggers Fit Into and Can Be Impacted by the Order of Execution
- Describe the Lifecycle of an Apex Transaction
- Describe the Memory Lifecycle for Static Attributes
- Use Platform Events for Immediate Error Logging

Apex Testing

- Describe the Apex Testing Framework
- Create Test Data
- Write and Run an Apex Test
- Test Best Practices

Strategies for Designing Efficient Apex Solutions

- Describe Best Practices for Writing Code That Is Easy to Maintain and Extend
- Write Triggers and Classes That Assume Batches of Data as Input
- Write Code That Works Efficiently with the Database, Both in Querying and Using DML

Trigger Design Strategies

- List Declarative Mechanisms You Can Use to Implement Complex Business Logic, What Types of Problems Theyre Best Used for, and Their Limitations
- Describe Ways in Which You Can Use Declarative Functionality to Improve Your Programmatic Solutions

Working with Visualforce

- Create a Visualforce Page
- Reference a Standard Controller
- Launch a Visualforce Page Using a Custom Button
- Display Data from a Record in a Visualforce Page
- Reference Custom Controllers and Controller Extensions
- Work with List Controllers

Visualforce Development Considerations and Testing

- Describe Common Limit Issues and Security Concerns
- Describe Strategies for Testing Visualforce Controllers
- Write Tests for Controller Constructors
- Write Tests for Action Methods, Getters, Setters, and Properties

Lightning Components

- Create and Surface an Aura Component
- Create and Surface a Lightning Web Component

Further Information:

For More information, or to book your course, please call us on 0800/84.009

info@globalknowledge.be

www.globalknowledge.com/en-be/