### Salesforce Developer Catalyst Self-Learning & Super Badges

Category: Salesforce

Skills Required:  
Salesforce Admin,Salesforce Developer

Project Description:

The Salesforce ecosystem is growing and is expected to create 0.5 million jobs in India by 2025. We’re inviting all students to embark on this online journey where we’ll provide curated content to help you learn the Salesforce skills that employers seek.

### Salesforce Developer - Self Learning

##### **Salesforce Developer Profile**

Salesforce Developers are responsible for analyzing company processes, developing CRM workflows, and adapting applications for business needs. Other duties mentioned in a typical Salesforce Developer resume sample are preparing technical documentation, providing assistance to other developers, and testing applications.

### Salesforce Fundamentals & User Setup

Duration: 6 Hrs

Skill Tags:

## Introduction

Are you new to Salesforce? Not sure exactly what it is, or how to use it? Don’t know where you should start on your learning journey? If you’ve answered yes to any of these questions, then you’re in the right place. This module is for you.

Welcome to Salesforce! Salesforce is game-changing technology, with a host of productivity-boosting features, that will help you sell smarter and faster. As you work toward your badge for this module, we’ll take you through these features and answer the question, “What is Salesforce, anyway?”

So let’s start right there.

### Relationships & ProcessAutomation

Duration: 9 Hrs

Skill Tags:

What are relationships in Salesforce?

Relationship in Salesforce is a 2-way association between 2 objects. Using relationships we can link objects with each other and we can make connections and display data about other related objects.

Automation tools are one of the declarative tools in Salesforce that make it more powerful by automating the number of administrative tasks that sales representatives and their managers have to perform manually. Salesforce provides multiple automation tools to automate your organization’s repetitive business processes: Workflow, Process Builder, Flow Builder, Approvals. Each tool comes with its own unique features. The best automation tool for your needs depends on the type of business process that you’re automating.

Workflow

Workflows are used to automate basic processes which can be summarized with a single if/then statement which means that if certain conditions are met, then the corresponding actions will be executed otherwise it will not be executed. These actions can be either Immediate Action that happens immediately or Time-Dependent Action that will execute at a specific time. In the case of Time-Dependent Action, criteria are evaluated again at the specified time before performing an action and if the criteria are found to be false, the Time-Dependent Action will not execute otherwise it will execute. The actions that can be performed through workflow are:

* Field Update
* Email Alert
* Send outbound message
* Create Task

Process Builder

Process Builder is the latest Salesforce automation tool that helps you to automate almost all of your business processes in the background, you don’t have any interaction with the process you just see the results when they are finished. It includes all the functionality of workflows except sending outbound messages without Apex code. It can handle multiple if/then statements and can perform different-different actions based on the conditional statements in a single process that would take multiple Workflows. It can be triggered when a record is created or updated, by another process or when a platform event occurs. It can be used to create new records, new tasks, send email alerts, post messages to chatter, submit records for approval, update any related records and call Apex code. Process Builder cannot be used to:

* send outbound messages without Apex code
* delete records.

Approval

Approval Process in Salesforce automates the necessary steps required for a record to be approved and specifies the approver to approve it at each step. It specifies what activities will happen when submitting a record for endorsement, when an approver or all approvers approve the record, and furthermore when an approver rejects a record. The activities allowed through the Approval Process are Field Update, Email Alert, Create Task, and Outbound Message. Whenever a user request approval, Initial Submission Actions occur in which the record is locked so that other user can’t change the record while approval is pending. If the request is rejected by the approver, the Final Rejection Actions are executed, and approval status is set as Rejected.

### Flows & Security

Duration: 6 Hrs

Skill Tags:

Salesforce Flow provides declarative process automation for every Salesforce app, experience, and portal. Included in Salesforce Flow are two point-and-click automation tools: Flow Builder, which lets you build flows, and Process Builder, which lets you edit existing processes.

Salesforce Data security deals with the security or sharing settings of data and visibility between users or groups of users across the organization. Force.com platform provides a flexible, layered sharing model that makes it easy to assign different data sets to different sets of users.

### Apex, Testing And Debugging

Duration: 9 Hrs

Skill Tags:

Apex is a strongly typed, object-oriented programming language that allows developers to execute flow and transaction control statements on the Lightning platform server in conjunction with calls to the Lightning Platform? API. ... Apex code can be initiated by Web service requests and from triggers on objects.

The Apex testing framework enables you to write and execute tests for your Apex classes and triggers on the Lightning Platform. Apex unit tests ensure high quality for your Apex code and let you meet requirements for deploying Apex.

Testing is the key to successful long-term development and is a critical component of the development process. The Apex testing framework makes it easy to test your Apex code. Apex code can only be written in a sandbox environment or a Developer org, not in production. Apex code can be deployed to a production org from a sandbox. Also, app developers can distribute Apex code to customers from their Developer orgs by uploading packages to the Lightning Platform AppExchange. In addition to being critical for quality assurance, Apex unit tests are also requirements for deploying and distributing Apex. The following are the benefits of Apex unit tests.

* Ensuring that your Apex classes and triggers work as expected
* Having a suite of regression tests that can be rerun every time classes and triggers are updated to ensure that future updates you make to your app don’t break existing functionality
* Meeting the code coverage requirements for deploying Apex to production or distributing Apex to customers via packages
* High-quality apps delivered to the production org, which makes production users more productive
* High-quality apps delivered to package subscribers, which increase your customers trust

### Integration

Duration: 6 Hrs

Skill Tags:

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### Apex Triggers

Duration: 1 Hrs

Skill Tags:

Apex triggers enable you to perform custom actions before or after events to records in Salesforce, such as insertions, updates, or deletions. Just like database systems support triggers, Apex provides trigger support for managing records.

Typically, you use triggers to perform operations based on specific conditions, to modify related records or restrict certain operations from happening. You can use triggers to do anything you can do in Apex, including executing SOQL and DML or calling custom Apex methods.

Use triggers to perform tasks that can’t be done by using the point-and-click tools in the Salesforce user interface. For example, if validating a field value or updating a field on a record, use validation rules and workflow rules instead.

Triggers can be defined for top-level standard objects, such as Account or Contact, custom objects, and some standard child objects. Triggers are active by default when created. Salesforce automatically fires active triggers when the specified database events occur.

### Apex Testing

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### Asynchronous Apex

Duration: 2 Hrs

Skill Tags:

In a nutshell, asynchronous Apex is used to run processes in a separate thread, at a later time.

An asynchronous process is a process or function that executes a task "in the background" without the user having to wait for the task to finish.

Here’s a real-world example. Let’s say you have a list of things to accomplish before your weekly Dance Revolution practice. Your car is making a funny noise, you need a different color hair gel and you have to pick up your uniform from your mom’s house. You could take your car to the mechanic and wait until it is fixed before completing the rest of your list (synchronous processing), or you could leave it there and get your other things done, and have the shop call you when it’s fixed (asynchronous processing). If you want to be home in time to iron your spandex before practice, asynchronous processing allows you to get more stuff done in the same amount of time without needless waiting.

You’ll typically use Asynchronous Apex for callouts to external systems, operations that require higher limits, and code that needs to run at a certain time.

### Apex Integration Services

Duration: 2 Hrs

Skill Tags:

An Apex callout enables you to tightly integrate your Apex code with an external service. The callout makes a call to an external web service or sends an HTTP request from Apex code, and then receives the response.

Apex callouts come in two flavors.

* Web service callouts to SOAP web services use XML, and typically require a WSDL document for code generation.
* HTTP callouts to services typically use REST with JSON.

These two types of callouts are similar in terms of sending a request to a service and receiving a response. But while WSDL-based callouts apply to SOAP Web services, HTTP callouts can be used with any HTTP service, either SOAP or REST.

So you are probably asking yourself right now, “Which one should I use?” Whenever possible, use an HTTP service. These services are typically easier to interact with, require much less code, and utilize easily readable JSON. All the “cool kids” have been switching to REST services over the last couple of years, but that’s not to say that SOAP Web services are bad. They’ve been around forever (in Internet years) and are commonly used for enterprise applications. They are not going away anytime soon. You’ll probably use SOAP mostly when integrating with legacy applications or for transactions that require a formal exchange format or stateful operations. In this module, we’ll touch on SOAP but will spend most of our time on REST.

### Process Automation Specialist - SuperBadge

### What You'll Be Doing to Earn This Super badge

### Automate lead ownership using assignment rules

### Enforce data integrity with formula fields and validation rules

### Create a custom object in a master-detail relationship to a standard object

### Define an opportunity sales process using stages, record types, and validation rules

### Automate business processes to send emails, create related records, and submit opportunities for approval

### Create a flow to display dynamic information on a Lightning record page

### Create a process to evaluate and update records

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### Formulas And Validations

Duration: 1 Hrs

Skill Tags:

## Introduction to Formula Fields

You’ve got a lot of data in your organization. Your users need to access and understand this data at a glance without doing a bunch of calculations in their heads. Enter formula fields, the powerful tool that gives you control of how your data is displayed.

Let’s say you wanted to take two numeric fields on a record and divide them to create a percentage. Or perhaps you want to turn a field into a clickable hyperlink for easy access to important information from a record’s page layout. Maybe you want to take two dates and calculate the number of days between them. All these things and more are possible using formula fields.

### Salesforce Flow

Duration: 2 Hrs

Skill Tags:

In Salesforce, a flow is an application that automates complex business processes. Simply put, it collects data and then does something with that data. Flow Builder is the declarative interface used to build individual flows. Flow Builder can be used to build code-like logic without using a programming language.

### Leads & Opportunities For Lightning Experience

Duration: 2 Hrs

Skill Tags:

Leads are people who are interested in your product and service. Converting leads to loyal customers will provide success within a business. By managing your leads in a systematic and structured way, you can increase both the numbers of leads you generate and how many leads you convert.

In Salesforce, an opportunity is a sale or pending deal. Multiple opportunities make up your sales pipeline, which contributes to your sales forecast. It's important to keep your Salesforce opportunities updated to ensure your sales forecast is accurate.