



Certification Exam Guide

# SALESFORCE CERTIFIED PLATFORM DEVELOPER II

Spring '18

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## ABOUT THE SALESFORCE CERTIFIED PLATFORM DEVELOPER II PROGRAM

The Salesforce Certified Platform Developer II program is designed for individuals who would like to demonstrate their skills and knowledge in advanced programmatic capabilities of the Lightning Platform and data modeling to develop complex business logic and interfaces. The candidate can design, develop, test, and deploy programmatic solutions that are maintainable and re-usable and follow design patterns and object-oriented programming best practices.

The Salesforce Platform Developer I credential is a prerequisite for the program.

Effective June 28, 2017, the Salesforce Certified Platform Developer II (PDII) certification will consist of two parts: a proctored multiple-choice exam and four [Trailhead Superbadges](#) which replace the Programming Assignment. Similar to the Programming Assignment, superbadges show that you can apply what you've learned to advanced, real-world business requirements covering features, concepts, and scenarios that are essential for a Platform Developer II to know, including Apex programming, data integration and more.

The graphic below illustrates the new path to earning the Platform Developer II certification.



All four of the superbadges, [Apex Specialist](#), [Data Integration Specialist](#), [Lightning Component Framework Specialist](#), and [Advanced Apex Specialist](#) are available today on [Trailhead](#). Log in to your Trailhead account, or sign up for one if needed, and you are able to begin completing the superbadges.

For an overview on the entire Platform Developer II credential process, check out this handy [article](#).

## SECTION 1. PURPOSE OF THIS EXAM GUIDE

This exam guide is designed to help you evaluate if you are ready to successfully complete the Salesforce Certified Platform Developer II program. This guide provides information about the target audience for the certification program, recommended training and documentation, and a complete list of exam objectives—all with the intent of helping you achieve a passing score. Salesforce highly recommends a combination of on-the-job experience, course attendance, and self-study to maximize your chances of passing the exam.

## SECTION 2. AUDIENCE DESCRIPTION: SALESFORCE CERTIFIED PLATFORM DEVELOPER II

The Salesforce Certified Platform Developer II program is intended for an individual who has experience developing custom applications on the Lightning Platform, including practical application of the skills and concepts noted in the exam objectives below.

The Salesforce Certified Platform Developer II generally has two to four years of experience as a developer, including at least one year of design, implementation, and deployment experience on the Lightning Platform.

The Salesforce Certified Platform Developer II candidate has the experience, skills, and knowledge outlined below:

- Understands the principles and best practices of Salesforce data modeling, interface design, code development, and testing, and can apply these principles in real-world development environments.
- Is capable of defining appropriate solutions to meet specific business challenges/process requirements to extend/customize the platform by applying knowledge of declarative and programmatic features of the Lightning Platform.
- Is competent developing Apex code that will scale to large data sets; has a good understanding of platform behaviors, limits, and performance considerations.
- Can build custom user interfaces to display and interact with Salesforce data using the Lightning Component Framework, advanced Visualforce, CSS, and JavaScript.
- Is competent tuning Visualforce pages and understands performance implications of the controller design.
- Understands and applies best practices for general web and Salesforce-specific security concerns.
- Can design and implement complex sharing models using declarative and programmatic methods.
- Can design and implement a test plan that ensures adequate quality (e.g., code coverage, application behaviors, scalability, environment independence, security) across application components.
- Can deploy custom applications, has a broad understanding of the Salesforce development lifecycle, and understands deployment tools and knows when to apply each tool.
- Understands and uses Apex SOAP and REST web services and how to call out from Apex using SOAP and REST.
- Understands and uses asynchronous programming – queueable, batchable, schedulable, @future, etc.
- Understands and applies appropriate techniques for error and exception handling in various programmatic contexts.

- Implements best practices for trigger development and design patterns, other business logic development, and reuse.
- Knows how to surface Lightning Components on a Lightning page and with Quick Actions.

A candidate for this exam is not expected to:

- Administer any standard Salesforce application.
- Design a technical architecture solution that spans multiple platforms and includes integration and authentication across systems.
- Develop and publish managed products on the App Exchange that require a security review.
- Create a Quick Action.
- Surface Lightning Components in all possible locations.
- Use all Salesforce APIs (i.e. metadata).

## SECTION 3. ABOUT THE EXAM

The **Salesforce Certified Platform Developer II Multiple Choice** exam has the following characteristics:

- Content: 60 multiple-choice/multiple-select questions\* (5 unscored questions will be added.)
- Time allotted to complete the exam: 120 minutes (time allows for unscored questions)
- Passing Score: 63%
- Registration fee: USD 200, plus applicable taxes as required per local law
- Retake fee: USD 100, plus applicable taxes as required per local law
- Delivery options: Proctored exam delivered onsite at a testing center or in an online proctored environment. Click [here](#) for information on scheduling an exam.
- References: No hard-copy or online materials may be referenced during the exam.
- Prerequisite: Salesforce Certified Platform Developer I credential

\*Please note that as of November 16, 2017, all Salesforce Certification exams will contain five additional, randomly placed, unscored questions to gather data on question performance. The duration of each exam has been evaluated and adjusted to accommodate the inclusion of the unscored questions. These five questions will be in addition to the 60 scored questions on your exam, and will have no impact whatsoever on your score.



## SECTION 4. RECOMMENDED TRAINING AND REFERENCES

As preparation for this exam, Salesforce recommends a combination of: hands-on experience, training course completion, Trailhead trails, and self-study in the areas listed in the Exam Outline section of this exam guide.

To access the most comprehensive training list, download a copy of our Salesforce Guide to Certification available [here](#).

To enroll in instructor-led courses and launch online training from your Salesforce application, click the **Help & Training** link in the upper right corner of the screen (requires login) and search for the desired courses. Non-Salesforce customers can register for instructor-led courses [here](#).

Salesforce recommends the following training resources to guide your study:

- [SOAP API Developer's Guide: Standard Objects](#)
- [Apex Code Developer's Guide: Using Salesforce Features with Apex](#)
  
- [About Advanced Currency Management](#)
- [Visualforce Developer's Guide: apex:page](#)
- [Compound fields book in the SOAP API Development guide: Object Basics – Compound Fields](#)
- [SOAP API Developer's Guide: upsert\(\)](#)
- [Choosing the Right Automation Tool Trailhead](#)
- [Visual Workflow Implementation Guide](#)
- [Force.com Actions Developer's Guide: Apex Actions](#)
- [Apex Code Developer's Guide: Writing Apex – Classes, Objects, and Interfaces - Annotations](#)
- [Force.com Apex Code Developer's Guide: Understanding Apex Managed Sharing](#)
- [Record-Level Access: Under the Hood](#)
- [Designing Record Access for Enterprise Scale](#)
- [Force.com REST API Developer's Guide: Getting Started with the Force.com REST API – Introducing Force.com REST API](#)
- [Lightning Components Developer's Guide](#)
- [Introducing Lightning Components](#)
- [Apex Code Developer's Guide: Debugging Apex](#)
- [Developer Best Practices Checklist: Salesforce Developers Blog](#)
- [Visualforce Performance: Best Practices](#)

- [Apex Web Services and Callouts](#)
- [Salesforce Reporting REST API Developer Guide](#)
- [Salesforce Analytics API Hands-On Training Webinar](#)
- [Salesforce Development Tools](#)
- [Development Lifecycle Guide: Development Tools](#)
- [Force.com Tools and Toolkits](#)

To review online Documentation, Tip Sheets, and User Guides – search for the topics listed in the Exam Outline section of the exam guide and study the information related to those topics. Documentation, Tip Sheets, and User Guides can also be accessed through **Help & Training**.

Trailhead trails can be accessed [here](#).

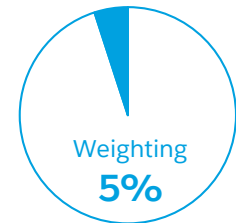
Check out the official [Certification Trailmix](#) for this credential. We have included essential Trailhead learning specifically with you in mind.

## SECTION 5. EXAM OUTLINE

The Salesforce Certified Platform Developer II Multiple Choice exam measures a candidate's knowledge and skills related to the following objectives. A candidate should have hands-on experience developing custom applications on the Lightning Platform and have demonstrated the application of each of the features/functions below.

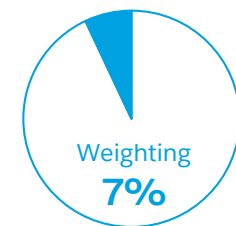
### SALESFORCE FUNDAMENTALS

- Describe the capabilities of base-system objects such as sharing objects, history objects, metadata objects, multi-currency, and Chatter objects.
- Describe the different capabilities of and use cases for the various Salesforce development platforms (Heroku, Fuel, Lightning Platform).



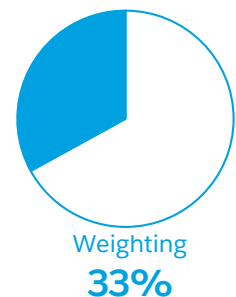
### DATA MODELING AND MANAGEMENT

- Describe how to design code that accommodates multi-language, multi-currency, multi-locale considerations.
- Describe the implications of compound data types in Apex programming.
- Describe the use cases for and benefits of external IDs.
- Identify use cases for different types of custom metadata and custom settings, and describe how to implement solutions for those use cases.



### LOGIC AND PROCESS AUTOMATION

- Given a scenario, describe the implications of the order of execution of a record save.
- Describe the interactions between Visualforce/Apex with Flow/Process Builder.
- Given a scenario, identify the optimal programmatic or declarative solution.
- Given a scenario, debug unexpected behavior due to save execution order.
- Describe the Apex features available for error handling and maintaining transactional integrity.
- Identify potential issues with inefficient code and mitigation techniques to avoid exceeding governor limits.
- Describe the data return types for SOQL and SOSL queries and their impact on variable assignment.
- Describe the options, best practices, and use cases for asynchronous execution.

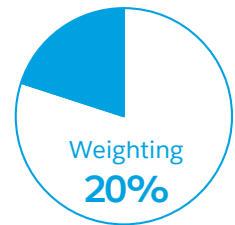


- Given a scenario, identify the appropriate dynamic Apex feature.
- Given a scenario, describe when and how to use Apex managed sharing.
- Describe the use cases for the various authentication techniques.

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### USER INTERFACE

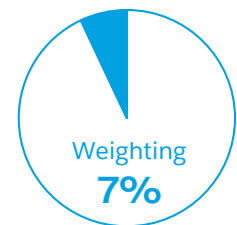
- Given a scenario, describe how to use a standard set controller.
- Describe the considerations when creating custom controllers and controller extensions.
- Describe the techniques for using Visualforce to perform actions and partial page refresh.
- Describe the messaging techniques and best practices when displaying errors in user interfaces.
- Describe techniques to maximize code re-use with Visualforce.
- Describe use cases for JavaScript in a Visualforce page.
- Given a set of requirements, describe the process for designing Lightning components.



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### PERFORMANCE

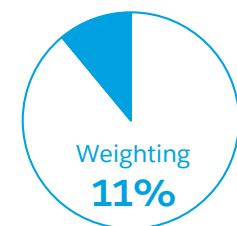
- Describe the common performance issues for user interfaces and the techniques to mitigate them.
- Describe the considerations for query performance.



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### INTEGRATION

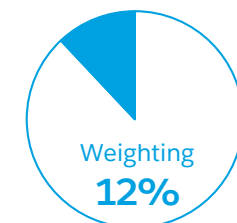
- Describe how to expose Apex classes as SOAP and REST web services.
- Describe how to use system classes to integrate with SOAP- or REST-based web services.
- Describe when and how to use metadata, streaming, and Analytics API to enhance Apex and Visualforce solutions.



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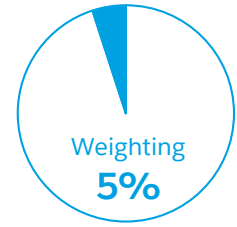
### TESTING

- Describe the best practices for unit testing in Apex.
- Describe how to apply different techniques to create test data and responses.
- Describe the implications of testing Visualforce controllers and controller extensions.
- Describe various ways to execute tests and specify test execution options.



## DEBUG AND DEPLOYMENT TOOLS

- Given a scenario, identify the appropriate tool to analyze application performance profiles and troubleshoot data and performance issues.
- Given a scenario, identify the appropriate deployment tool.



## SECTION 6. SAMPLE EXAM QUESTIONS

The following questions are representative of those on the Salesforce Certified Platform Developer II multiple-choice exam. These questions are *not* designed to test your readiness to successfully complete the certification exam, but should be used to become familiar with the types of questions on the exam. The actual exam questions may be more or less difficult than this set of questions.

1. A developer needs to create a service that will process an email sent to it and create an account and contact using the contents of the email as data for the records.

How might a developer accomplish this requirement?

*Choose one answer*

- A. Use the Apex Inbound Email Handler.
- B. Use the Fuel API with Email Data Extensions.
- C. Use Heroku Data Clips to Process Email.
- D. Use Auto-launched Flow and Process Builder.

2. How can Apex be used with Visual Workflow?

*Choose one answer*

- A. To set the version of a Flow being run.
- B. To start a Flow automatically.
- C. To add custom styling to a Flow.
- D. To control access to a Flow.

3. An integration user makes a successful login() call via the SOAP API.

What can be used in the SOAP header to provide server authorization for subsequent API requests?

*Choose one answer*

- A. Named Credentials
- B. Session ID
- C. OAuth access token
- D. Security token

4. A customer has a single Visualforce page that allows each user to input up to 1500 sales forecasts and instantly view pivoted forecast calculations. Users are complaining that the page is loading slowly, and they are seeing error messages regarding heap and view state limits.

What are three recommendations to optimize page performance?

*Choose three answers*

- A. Segregate calculation functionality from input functionality.
  - B. Specify the list of sales forecasts as transient.
  - C. Implement pagination and reduce records per page.
  - D. Create formula fields to compute pivoted forecast calculations.
  - E. Use JavaScript Remoting instead of controller actions.
5. A developer is creating unit tests for code that makes SOAP web service callouts. The developer needs to insert some test data as a part of the unit tests setup.

What are three actions to enable this functionality?

*Choose three answers*

- A. Surround the callout with `Test.startTest()`, `Test.stopTest()`.
- B. Surround the data insertion with `Test.startTest()`, `Test.stopTest()`.
- C. Implement the `WebServiceMock` interface.
- D. Update code to call `Test.setMock()`.
- E. Implement the `HttpCalloutMock` interface.

## SECTION 7. ANSWERS TO SAMPLE EXAM QUESTIONS

1. A
2. B
3. B
4. A, C, E
5. A, C, D



## SECTION 8. MAINTAINING A CERTIFICATION

One of the benefits of holding a Salesforce credential is always being up to date on new product releases. Our release exams are designed to ensure you have the latest information you need to be a successful Salesforce Certified expert.

Bookmark these useful resources for maintaining your credentials:

- [Maintenance Exam Due Dates](#)
- [Credential Status Request Overview](#)
- [Overall Maintenance Requirements](#)

**Don't let your hard-earned credential expire!** Once you earn the credential, if you do not complete all maintenance requirements by the due date, your credential will expire, or in some cases, become suspended. For more information, click [here](#).

### ABOUT TRAILHEAD

Trailhead is your path into the Salesforce economy. It's the fun way to learn the skills you need to transform your company, earn credentials that grow your career, and connect with a global movement of Trailblazers to continue learning together.

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The fun way to  
learn Salesforce

#### LEARN

Learn at your own pace, from our experts, and your peers.

#### EARN

Earn points, badges, and skill-based credentials that grow your resume.

#### CONNECT

Connect with fellow Trailblazers to learn, inspire, and blaze new trails.

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