



## APEX TESTING

Apex testing is a practice that enables you to write and execute tests for your Apex classes and triggers in Salesforce. It also helps you decide whether your apex code meets the quality standards.

## APEX TEST CLASS - BEST PRACTICES

- **Single action:** Ensures that a single method of code is producing specified results.
- **Bulk actions:** Ensures that your code is working properly and doesn't exceed limits when run against larger numbers of records.
- **Positive behavior:** Verifies that code is fulfilling set expectations.
- **Negative behavior:** Tests negative cases to ensure that the code does not create unintended consequences and also makes certain that error messages are accurate to avoid likely failures.
- **User Permissions and Access:** Ensures how your application or feature will perform when a user with restricted access tries to access it.

## APEX TESTING LEVELS IN SALESFORCE

There are mainly four Apex testing levels in Salesforce:

1. **NoTestRun:** If this option is selected, no tests will be executed.
2. **RunSpecifiedTests:** If this option is selected, minimum code coverage should be 75%.
3. **RunLocalTests:** If this option is selected, all tests will be run except for originated from installed managed packages.
4. **RunAllTestsInOrg:** If this option is selected, all tests will be run, including those in managed packages.



Test levels can be specified during the promotion as well as deployment in Copado.

## SETTING UP APEX CODE COVERAGE

You can define Apex code coverage in the Environment record as well as in User Story. Let's see how.

## In Environment record:

1. Go to an Environment record.
2. Click on **Edit**.
3. Specify a value in the **Minimum Apex Test Coverage** field.
4. Click on **Save**.

	Environment Name	Type	Minimum Apex Test Coverage
1	<input type="checkbox"/> Hotfix	Production/Developer	75%
2	<input type="checkbox"/> UAT	Production/Developer	75%
3	<input type="checkbox"/> INT	Production/Developer	75%
4	<input type="checkbox"/> Dev 2	Production/Developer	75%
5	<input type="checkbox"/> Dev 3	Production/Developer	75%
6	<input type="checkbox"/> Dev 1	Production/Developer	75%

## In User Story:

1. Open a user story and scroll down to the **Apex Code Coverage** section.
2. Add the desired value to the **Minimum Apex Code Coverage** field.
3. Click on **Save**.

▼ Apex Code Coverage

Minimum Apex Code Coverage ⓘ  
75%

Apex Code Coverage ⓘ

Failing Methods ⓘ

Has Apex Code ⓘ  
☐

Classes Without Coverage ⓘ

Triggers Without Coverage ⓘ

## HOW TO EXECUTE THE APEX TEST?

- Click on **Manage Apex Tests** from the user story dropdown.
- Select **Run Apex Tests**.
- Check Apex test result.

If you only want to run the additional tests classes and do not want to commit and deploy the same, choose the **Add Test Classes** option from the *User Story Selections* section.

## STEPS TO SCHEDULE AN APEX TEST

1. Navigate to the relevant **Credential** record.
2. Click on **Edit**.
3. Select the desired **Test Frequency**.
4. Click on **Save**.

