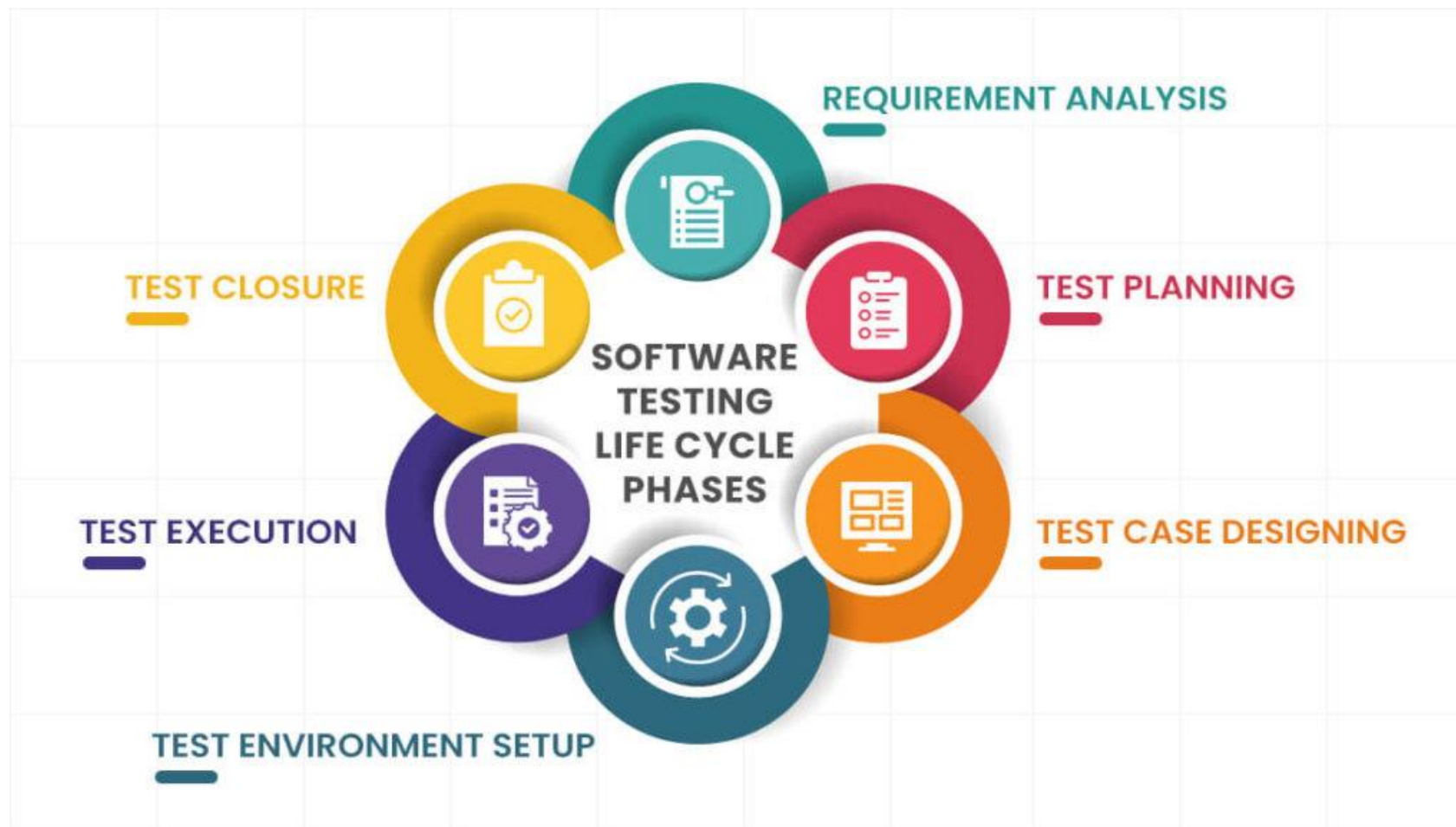# AUTOMATED TEST FRAMEWORK

& SOFTWARE TESTING LIFECYCLE

OVERVIEW

- Software Testing Lifecycle (STLC)

- Testing Options in ServiceNow

- Automated Test Framework (ATF)

- ATF Records and Components

SOFTWARE TESTING LIFECYCLE (STLC)

TESTING OPTIONS IN SERVICENOW

- As with traditional development, we have multiple options for how testing is performed

- ServiceNow supports both automated and manual testing

  - Automated testing is typically done using the ATF

  - Manual testing is executed by a human tester

- When considering automated vs manual testing, consider the type of testing:

  - Story/unit testing – focuses on the smallest testable software component, typically done in isolation

  - System testing – assesses the system as a whole to validate functionality and this also includes integration testing

  - User acceptance testing(UAT) - completed by end users as the final validation stage for customer/business validation

AUTOMATED TEST FRAMEWORK

- The Automated Test Framework (ATF) enables you to create and run automated tests to confirm that your instance works after making a change

- It helps to ensure the integrity of your instance by enabling the creation and execution of automated tests following any changes

- Benefits of ATF include:

  o Reduce upgrade/development time by replacing manual testing with automated testing

  o Design tests once and reuse them in different contexts with different test data sets

  o Test suites lets us organize and run tests in batches (they can also run on a schedule!)

  o Create custom test steps to expand test coverage

ATF RECORDS & COMPONENTS

- A test is a logical grouping of related automated test steps that verify some functionality or feature [sys_atf_test]

  o Users must have the admin or atf_test_admin role to create test records

- A test suite is a collection of tests that run in a specific order

- A quick start test is a test/test suite installed with demo data of an application

- A test step combines a step configuration with the runtime test data necessary to run a step

- A step configuration is a specific test action the ATF can run

DEMO

- Let's create and run an automated test!

TERMINOLOGY

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- Test Step - combines a step configuration with the runtime test data necessary to run a step

- Step Configuration - a specific test action the ATF can run

- STLC – software testing lifecycle