**JUNIT 5**

Learn Java Unit Testing with JUnit 5 -Whole Practice Assignment

1. Create a simple maven project with group id com.in28mins & write a Junit test for the truncateAInFirst2Positions method by passing a string & add testcase & assertEquals along with assertNull and assertTrue methods for string comparison run the test without failure & run successful Junit
2. 1. Write a test method for testing two conditions CDEF=>CDEF CDAA=>CDAA string input & write a unit test.

2. Write a Junit test to test the first and last two characters are the same & return true if it is the same or else false using the assert false & assert True method.

1. Write Junit test code using @BeforeEach and @AfterEach annotations along with grouping test using @Nested
2. Write a Junit 5 test code with @BeforeAll and @AfterAll
3. Define a test to compare arrays, import the array class & check the functionality of sorting use assertArrayEquals method & add null pointer exception.
4. Performance unit test code.
5. Write a test suite in Junit 5 to test multiple test classes multiple times with performance for words comparison in chronological order using legacy class Dictionary along with exception handling and Junit Patterns.
6. Write a test unit code in Junit 5 Test suite, @RepeatedTest, @DisplayName, @Disabled, xunitpatterns, @ParameterizedTest, @CsvSource
7. Mockito

* Create a simple maven project with group id com.in28mins & write a Junit test for the truncateAInFirst2Positions method by passing a string & add test case & assertEquals run the test without failure & run successful Junit.
* Run a test method that includes before, after, before class & after class methods. Write a mocks example ToDo service management system & create a unit test using a stub to implement the ToDo service.
* Write a test mock list get using BDD in a Given, When & Then style add a delete Todo method in the service interface.
* Add the hamcrest library dependency to porm.xml & use the assert that method & do hamcrest matchers test. Show how to mock the constructor using the combination of power mock & mockito.

1. Mockito

- Create a sample example of mocks to interact with a Todo service Management application system & provide filtering around spring related todo’s.

- Create a unit test using a stub to implement the ToDo service & test the TodoBusinessImpl using a service stub.

- Add the static import create a mock method inside the mockito class & call when method with return value & test todobusiness service scenario.

- Input the List in an interface & create a mocks for it returns multiple values from single method use argument matches & stub method & throws a runtime exception.

- Write a test mock list get using BDD in a given mock is returning in 28 minutes, when get the first element & then asserting the first element matches the expectation & verify calls on a mock add a delete Todo method in the service interface

1. Mockito

- Show how to capture an argument that is passed to a mock.

- Add the hamcrest library dependency to pom.xml & use the assertThat() method & do hamcrest matchers test.

- Write a mockito unit test in a real-world project example using complex test methods in business scenarios.

- Create a simple Spy test with mockito & override the specific methods in spy.