02

Mocking

WHAT WILL YOU LEARN?

* What is Mocking
* Mock framework
* Mockito Annotations

What is mocking

* mocking is a process used in unit testing when the unit being tested has external dependencies.
* There are three types of mocking framework available
  + Fakes
  + Stubs
  + Mock

Mock Framework

There are 2 types of mocking framework are available

* Stub based mock framework (Ex: Easy Mock)
* Byte Manipulation Based mock framework (ex: Power Mock)

What is Mockito?

Mockito is a java based mocking framework used for unit testing of java application

Methods of Mockito –

* mock() –
  + It is used to create mock objects of a given class or interface.
* verify() –
  + It enables stubbing methods. It should be used when we want to mock to return specific values when particular methods are called.
* when() –
  + The **verify()** method is used to check whether some specified methods are called or not.
* spy() -
  + It creates a spy of the real object.
* doThrow() –
  + It is used when to stub a void method to throw an exception. It creates a new exception instance for each method invocation.

Mockito Annotations

* @Mock:
  + It is used to mock the objects that helps in minimizing the repetitive mock objects.
* @RunWith:
  + It is a class-level annotation.
* @InjectMocks:
  + It marks a field or parameter on which the injection should be performed.
  + It allows shorthand mock and spy injections and minimizes the repetitive mocks and spy injection.
* @Captor:
  + It allows the creation of a field-level argument captor.
  + It is used with the Mockito's verify() method to get the values passed when a method is called.
* @Spy
  + It allows the creation of partially mock objects.