Framework Concepts - TestNG API (Continued)

- **Failing @Test annotated methods**
  - If any @Test annotated method fails, it will be displayed as failed test in Eclipse IDE Console, TestNG results tab and default TestNG reports
  - Demonstrate a program in which the @Test annotated method is failing - Demonstrate here
- **Skipping a test in TestNG**
  - **throw**
    - If we want to manually throw any exception based on some condition, we have to use **throw** - Demonstrate here
      - Syntax: **throw new Exception();**
      - Exception is the predefined class of Java
  - If we want to manually skip any test method in TestNG, we have to use throw - Demonstrate here
    - Syntax: **throw new SkipException();**
    - SkipException is the predefined class of TestNG
- **TestNG Assertions**
  - We perform testing to verify whether a particular test is passed or failed.
  - In the similar way, TestNG provides a predefined Class '**Assert**' and its predefined methods assertEquals(), assertNotEquals(), assertTrue(), assertFalse() and fail() to verify whether @Test annotated methods are passed or failed.
  - **assertEquals()**
    - Demonstrate a program which uses assertEquals() to verify a failing test - Demonstrate here
    - Demonstrate a program which uses assertEquals() to verify a passing test - Demonstrate here
  - **assertTrue()**
    - Demonstrate a program which uses assertTrue() to verify a failing test - Demonstrate here
    - Demonstrate a program which uses assertTrue() to verify a passing test - Demonstrate here
  - **assertFalse()**
    - Demonstrate a program which uses assertFalse() to verify a failing test - Demonstrate here
    - Demonstrate a program which uses assertFalse() to verify a passing test - Demonstrate here
  - **fail()**
    - Demonstrate a program which fails a test directly - Demonstrate here
- **Parameterizing tests using TestNG's @DataProvider annotation**
  - We can run a single test using different types of input data using TestNG
    - Example: Login to an Application using User having different roles and permissions. Say Schools website > Admin, Teacher and Student roles.
  - **@DataProvider(**name attribute**)**
    and @Test(**dataProvider**="dataProviderMethodName")
    - Demonstrate a program which parameterizes an @Test annotation method by providing name to the @DataProvider annotated method - Demonstrate here