

### **Instructions:**

1. Program the problem statements using TDD approach
2. Use TestNG as unit testing framework. Please make sure that you have TESTNG libraries updated. Add dependency in pom.xml as

```
<dependency>

    <groupId>org.testng</groupId>
    <artifactId>testng</artifactId>
    <version>6.8.8</version>
</dependency>
```

3. Please make sure that you write the test first and then code
4. Check in the code to SVN **as frequently as possible** to assert that tests were written first and TDD practices were followed
5. Upload the Jacoco code coverage report to TDD folder under SVN after successful completion
6. Once done, reach out to the owners of topic for face to face discussion
7. It is suggested to solve the problem in the same sequence as questions
8. It is also suggested to review each solution individually once it is completed before proceeding to next solution.

### **Problem statements:**

1. Write a password validator which ensures that passwords meet the following criteria: Between 6 and 10 characters long Contain at least one digit Contain at least one upper case letter
2. Write a service to register a user into the application. User is uniquely identified by email Id. First name, last name and password are mandatory to register. If user with same id exists then registration will fail. If there is no existing user then save the user into database and a validation email is triggered to user. Password is encrypted before inserting into DB by a open source library API
3. Write a service to place a bid. Before accepting a bid a check is made to see it is greater than the current highest bid.  
If bid amount is less than highest bid then exception is thrown.  
User placing the bid is a verified for qualification to place the bid.  
If validation checks are passed then bid is persisted against the property and a confirmation mail is sent to buyer.  
If bid type is own it now then property status is also updated.