SE 317, Lab 4

Name: Aina Qistina Binti Azman

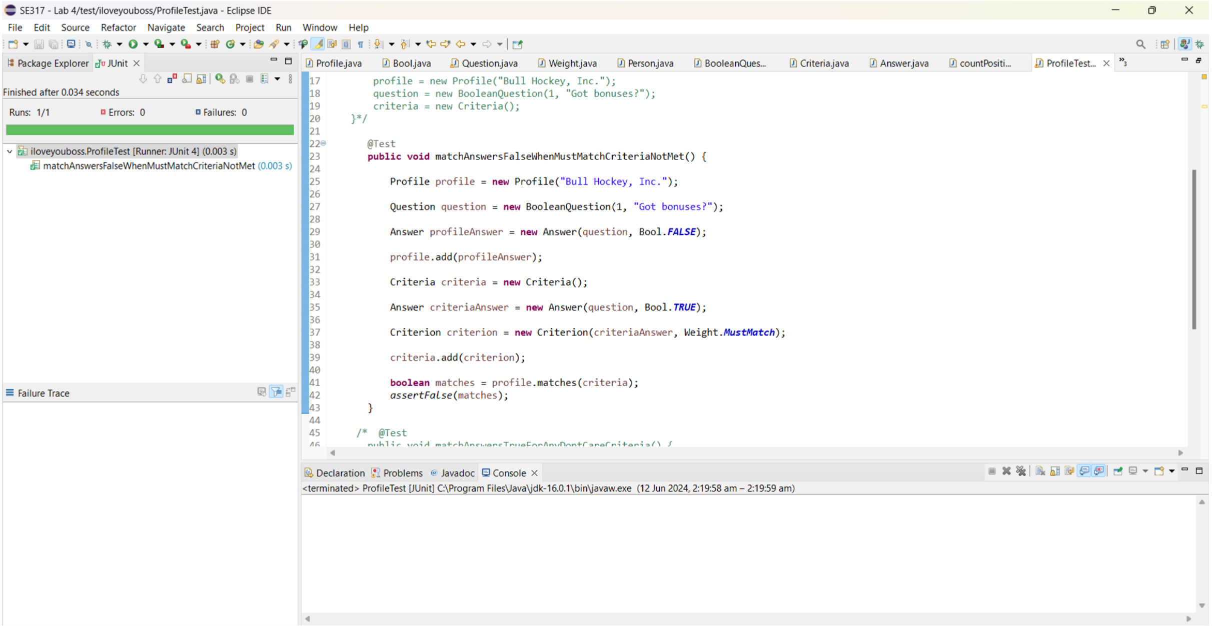
Net ID: 457-464-051

1- Code + Screenshots of all your test code above as well as all code you modify.

- @Test - matchAnswersFalseWhenMustMatchCriteriaNotMet()

```
package iloveyouboss;

import static org.junit.Assert.*;

import org.junit.Before;
import org.junit.Test;

public class ProfileTest {

 @Test
       public void matchAnswersFalseWhenMustMatchCriteriaNotMet() {

           Profile profile = new Profile("Bull Hockey, Inc.");

           Question question = new BooleanQuestion(1, "Got bonuses?");

           Answer profileAnswer = new Answer(question, Bool.FALSE);

           profile.add(profileAnswer);

           Criteria criteria = new Criteria();
```

```
            Answer criteriaAnswer = new Answer(question, Bool.TRUE);

            Criterion criterion = new Criterion(criteriaAnswer, Weight.MustMatch);

            criteria.add(criterion);

            boolean matches = profile.matches(criteria);
            assertFalse(matches);
            }

        }
```



Finished after 0.034 seconds

Runs: 1/1 Errors: 0 Failures: 0

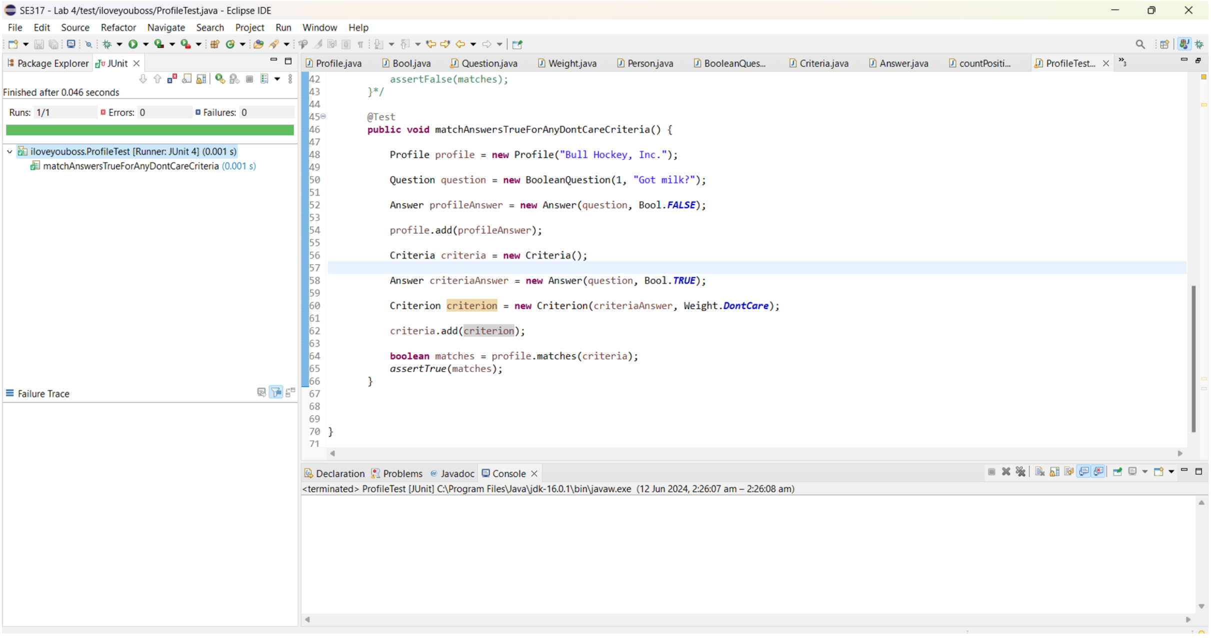
iloveyouboss.ProfileTest [Runner: JUnit 4] (0.003 s)
matchAnswersFalseWhenMustMatchCriteriaNotMet (0.003 s)

```
        profile = new Profile("Bull Hockey, Inc.");
        question = new BooleanQuestion(1, "Got bonuses?");
        criteria = new Criteria();
    }*/

    @Test
    public void matchAnswersFalseWhenMustMatchCriteriaNotMet() {

        Profile profile = new Profile("Bull Hockey, Inc.");

        Question question = new BooleanQuestion(1, "Got bonuses?");

        Answer profileAnswer = new Answer(question, Bool.FALSE);

        profile.add(profileAnswer);

        Criteria criteria = new Criteria();

        Answer criteriaAnswer = new Answer(question, Bool.TRUE);

        Criterion criterion = new Criterion(criteriaAnswer, Weight.MustMatch);

        criteria.add(criterion);

        boolean matches = profile.matches(criteria);
        assertFalse(matches);
    }

  /*  @Test
    public void matchAnswersTrueForAnyDontCareCriteria() {
```

```
<terminated> ProfileTest [JUnit] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe  (12 Jun 2024, 2:19:58 am – 2:19:59 am)
```

- @Test - matchAnswersTrueForAnyDontCareCriteria()

```
 @Test
        public void matchAnswersTrueForAnyDontCareCriteria() {

            Profile profile = new Profile("Bull Hockey, In
c.");

                Question question = new BooleanQuestion(1, "Got
milk?");

                Answer profileAnswer = new Answer(question, Boo
l.FALSE);

                profile.add(profileAnswer);

                Criteria criteria = new Criteria();

                Answer criteriaAnswer = new Answer(question, Boo
l.TRUE);

                Criterion criterion = new Criterion(criteriaAnsw
er, Weight.DontCare);

                criteria.add(criterion);

                boolean matches = profile.matches(criteria);
                assertTrue(matches);
          }
```



Finished after 0.046 seconds

Runs: 1/1 Errors: 0 Failures: 0

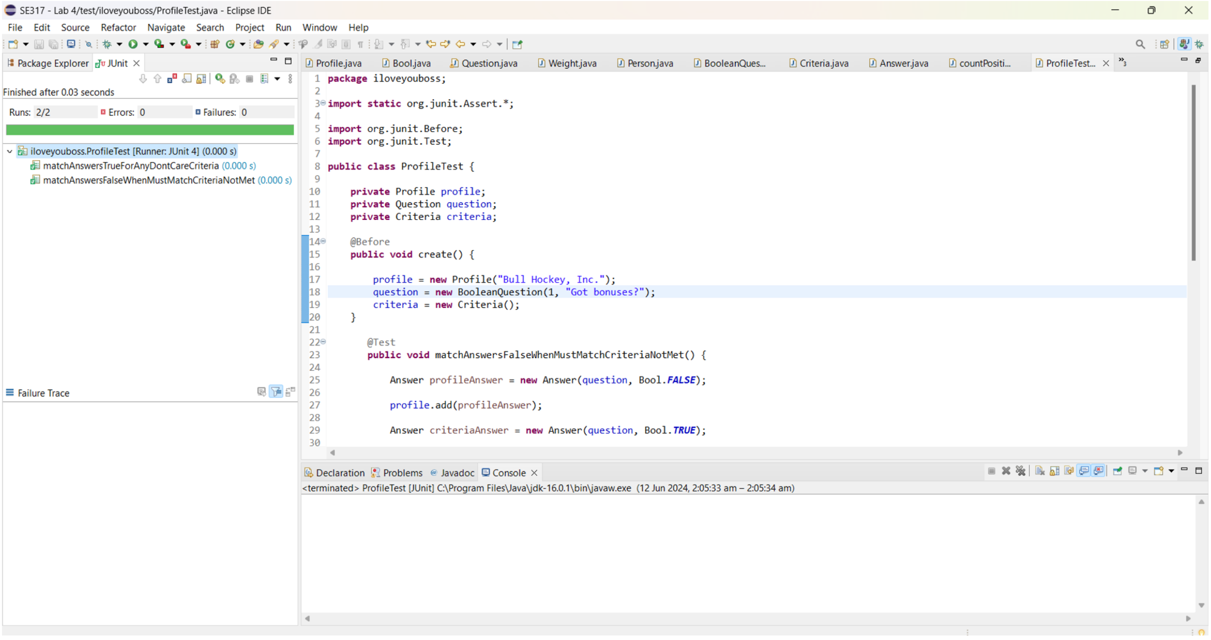
iloveyouboss.ProfileTest [Runner: JUnit 4] (0.001 s)
matchAnswersTrueForAnyDontCareCriteria (0.001 s)

```
            assertFalse(matches);
        }*/

        @Test
        public void matchAnswersTrueForAnyDontCareCriteria() {

            Profile profile = new Profile("Bull Hockey, Inc.");

            Question question = new BooleanQuestion(1, "Got milk?");

            Answer profileAnswer = new Answer(question, Bool.FALSE);

            profile.add(profileAnswer);

            Criteria criteria = new Criteria();

            Answer criteriaAnswer = new Answer(question, Bool.TRUE);

            Criterion criterion = new Criterion(criteriaAnswer, Weight.DontCare);

            criteria.add(criterion);

            boolean matches = profile.matches(criteria);
            assertTrue(matches);
        }



}
```

```
<terminated> ProfileTest [JUnit] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe  (12 Jun 2024, 2:26:07 am – 2:26:08 am)
```

- @Before - create()

```
package iloveyouboss;

import static org.junit.Assert.*;

import org.junit.Before;
import org.junit.Test;

public class ProfileTest {

    private Profile profile;
    private Question question;
    private Criteria criteria;

    @Before
    public void create() {

        profile = new Profile("Bull Hockey, Inc.");
        question = new BooleanQuestion(1, "Got bonuses?");
        criteria = new Criteria();
    }


      @Test
       public void matchAnswersFalseWhenMustMatchCriteriaNotMet() {

           Answer profileAnswer = new Answer(question, Bool.FALSE);
           profile.add(profileAnswer);
           Answer criteriaAnswer = new Answer(question, Bool.TRUE);
           Criterion criterion = new Criterion(criteriaAnswer, Weight.MustMatch);
           criteria.add(criterion);
           boolean matches = profile.matches(criteria);
           assertFalse(matches);
       }



           @Test
           public void matchAnswersTrueForAnyDontCareCriter
ia() {

               Answer profileAnswer = new Answer(question,
Bool.FALSE);
               profile.add(profileAnswer);
               Answer criteriaAnswer = new Answer(question,
Bool.TRUE);
               Criterion criterion = new Criterion(criteria
Answer, Weight.DontCare);
               criteria.add(criterion);

               boolean matches = profile.matches(criteria);
               assertTrue(matches);
           }



}
```



Finished after 0.03 seconds

Runs: 2/2 Errors: 0 Failures: 0

iloveyouboss.ProfileTest [Runner: JUnit 4] (0.000 s)
matchAnswersTrueForAnyDontCareCriteria (0.000 s)
matchAnswersFalseWhenMustMatchCriteriaNotMet (0.000 s)

```java
package iloveyouboss;

import static org.junit.Assert.*;

import org.junit.Before;
import org.junit.Test;

public class ProfileTest {

    private Profile profile;
    private Question question;
    private Criteria criteria;

    @Before
    public void create() {

        profile = new Profile("Bull Hockey, Inc.");
        question = new BooleanQuestion(1, "Got bonuses?");
        criteria = new Criteria();
    }

      @Test
      public void matchAnswersFalseWhenMustMatchCriteriaNotMet() {

          Answer profileAnswer = new Answer(question, Bool.FALSE);

          profile.add(profileAnswer);

          Answer criteriaAnswer = new Answer(question, Bool.TRUE);
```

```
<terminated> ProfileTest [JUnit] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe  (12 Jun 2024, 2:05:33 am – 2:05:34 am)
```

2- Detailed answers of the two questions above

Question 1: If the JUnit chooses to run matchAnswersTrueForAnyDontCareCriteria() first, what is the sequence of events?

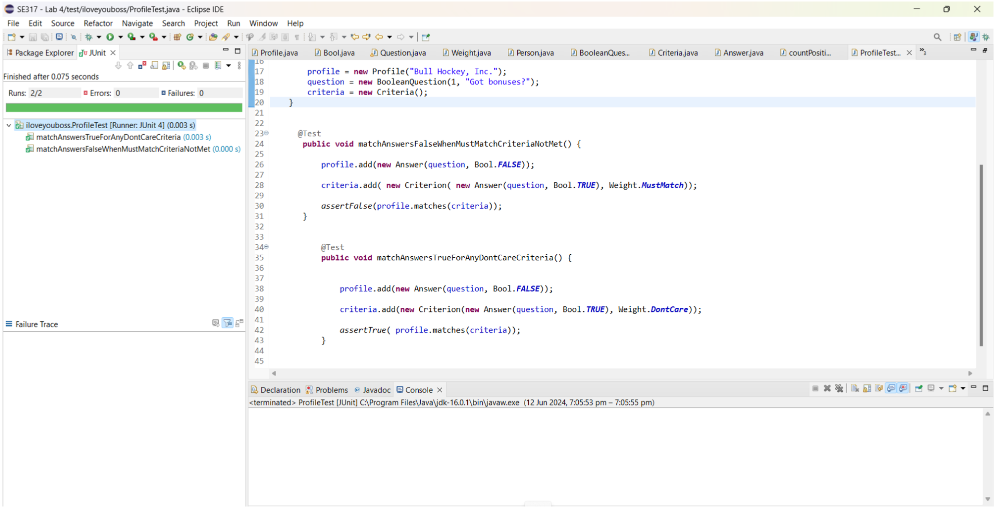
a. JUnit will execute **'@Before'** method to initialize the '**profile', 'question'** and **'criteria'** objects.

b. The test **'matchAnswersTrueForAnyDontCareCriteria()'** will then be executed. This execution will set the profile answer to false, adding it to profile, setting the criteria answer to true, adding it to the criteria with weight **'DontCare'**, and lastly asserting that **'profile.matches(criteria)'** returns true.

Question 2: In order to minimize the impact any one test has on another (avoiding static fields in test cases as well), create a
more condensed but more readable arrange portion of each test by in lining some local variables.

```
package iloveyouboss;

import static org.junit.Assert.*;
import org.junit.Before;
import org.junit.Test;

public class ProfileTest {

    private Profile profile;
    private Question question;
    private Criteria criteria;

    @Before
    public void create() {

        profile = new Profile("Bull Hockey, Inc.");
        question = new BooleanQuestion(1, "Got bonuses?");
        criteria = new Criteria();
    }


      @Test
       public void matchAnswersFalseWhenMustMatchCriteriaNo
tMet() {

           profile.add(new Answer(question, Bool.FALSE));

           criteria.add( new Criterion( new Answer(questio
n, Bool.TRUE), Weight.MustMatch));

           assertFalse(profile.matches(criteria));
       }


           @Test
           public void matchAnswersTrueForAnyDontCareCriter
ia() {


               profile.add(new Answer(question, Bool.FALS
E));
```

```
                criteria.add(new Criterion(new Answer(questi
on, Bool.TRUE), Weight.DontCare));

                assertTrue( profile.matches(criteria));
            }



}
```



SE317 - Lab 4/test/iloveyouboss/ProfileTest.java - Eclipse IDE

Finished after 0.075 seconds

Runs: 2/2 Errors: 0 Failures: 0

```
iloveyouboss.ProfileTest [Runner: JUnit 4] (0.003 s)
    matchAnswersTrueForAnyDontCareCriteria (0.003 s)
    matchAnswersFalseWhenMustMatchCriteriaNotMet (0.000 s)
```

```
        profile = new Profile("Bull Hockey, Inc.");
        question = new BooleanQuestion(1, "Got bonuses?");
        criteria = new Criteria();
    }


      @Test
       public void matchAnswersFalseWhenMustMatchCriteriaNotMet() {

           profile.add(new Answer(question, Bool.FALSE));

           criteria.add( new Criterion( new Answer(question, Bool.TRUE), Weight.MustMatch));

           assertFalse(profile.matches(criteria));
       }


           @Test
           public void matchAnswersTrueForAnyDontCareCriteria() {


               profile.add(new Answer(question, Bool.FALSE));

               criteria.add(new Criterion(new Answer(question, Bool.TRUE), Weight.DontCare));

               assertTrue( profile.matches(criteria));
           }

```

```
<terminated> ProfileTest [JUnit] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe  (12 Jun 2024, 7:05:53 pm – 7:05:55 pm)
```