

Task 1: As explained in the session on Equals and hashCode, create two **Student** objects in memory and check whether they're equal or not?

If you don't find them equal then override the default **Object.equals()** method of the **Student** class using their **enrollmentIds** and check whether now you find them equal?

If you find them equal this time then create a Set Collection of **Student** and add one of the students into that collection, then try to find it using the other **Student** that you had found equal to the added **Student** object and check whether you could find the added **Student** object in the Set Collection?

If you can't find the added **Student** using the other **Student** object then override the **Object.hashCode()** method of the **Student** class and now check whether you could find added **Student** this time using the other **Student** object.

Task 2: Before starting this task, remove the **equals** and **hashCode** methods from the **Student** class that you implemented in the **Task1**.

Execute the following code snippet and examine out the result of line highlighted code.

```
EntityManager em = emf.createEntityManager();  
  
em.getTransaction().begin();  
  
Student student1 = em.find(Student.class, 2L);  
Student student2 = em.find(Student.class, 2L);  
  
System.out.println(student1.equals(student2));  
  
em.getTransaction().commit();  
em.close();
```

Task 3: Execute the following code snippet and examine out the result of line highlighted code.

```
EntityManager em1 = emf.createEntityManager();  
em1.getTransaction().begin();  
  
Student student1 = em1.find(Student.class, 2L);  
  
em1.getTransaction().commit();  
em1.close();  
  
EntityManager em2 = emf.createEntityManager();  
em2.getTransaction().begin();  
  
Student student2 = em2.find(Student.class, 2L);  
  
System.out.println(student1.equals(student2));  
  
em2.getTransaction().commit();  
em2.close();
```

Task 4: Repeat the **Task 2** and **Task 3** after implementing this **equals** and **hashCode** method and find out if you get different results this time.