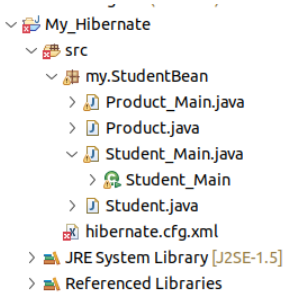
Program 6:
create a database as student and database as Student(s is capital in the table name)

```
mysql> desc Student;
+------------+---------------+------+-----+---------+-------+
| Field      | Type          | Null | Key | Default | Extra |
+------------+---------------+------+-----+---------+-------+
| id         | int           | NO   | PRI | NULL    |       |
| usn        | varchar(10)   | YES  |     | NULL    |       |
| address    | varchar(1000) | YES  |     | NULL    |       |
| totalmarks | int           | YES  |     | NULL    |       |
| name       | varchar(100)  | YES  |     | NULL    |       |
+------------+---------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

Project Structure:



Student.java

```
package my.StudentBean;
//import

@Entity
@Table(name = "Student")
public class Student {
	@Id
	int id;
	@Column
	int totalmarks;
	@Column
	String usn, name, address;

	public int getId() {
		return id;
	}
	public void setId(int id) {
		this.id = id;
	}
	public int getTotalmarks() {
		return totalmarks;
	}
```

```
	public void setTotalmarks(int totalmarks) {
		this.totalmarks = totalmarks;
	}
	public String getUsn() {
		return usn;
	}
	public void setUsn(String usn) {
		this.usn = usn;
	}
	public String getName() {
		return name;
	}
	public void setName(String name) {
		this.name = name;
	}
	public String getAddress() {
		return address;
	}
	public void setAddress(String address) {
		this.address = address;
	}

	@Override
	public String toString() {
		return "Student [id=" + id + ", totalmarks=" + totalmarks + ", usn=" + usn + ",
name=" + name + ", address=" + address + "]";
	}

}
```

Student_Main.java

```
package my.StudentBean;

//imports
public class Student_Main {
	SessionFactory sc = new
Configuration().configure("hibernate.cfg.xml").buildSessionFactory();
	Session session = sc.openSession();
	Transaction t = session.beginTransaction();
	public void insert(int id, String usn, String name, String address, int totalmarks) {
		Student s = new Student();
		s.setId(id);
		s.setName(name);
		s.setAddress(address);
		s.setTotalmarks(totalmarks);
		s.setUsn(usn);
		session.save(s);
		t.commit();
	}

	public void delete(String usn) {
```

```
        Query q = session.createQuery("delete from student where usn = :usn");
        q.setParameter("usn", usn);
        int status = q.executeUpdate();
        if (status == 0) {
                System.out.println(usn + " Deleted successfully");
        } else {
                System.out.println(usn + " not found");
        }
}

public void display() {
        Query q = session.createQuery("from Student");
        List l = q.getResultList();
        Iterator it = l.iterator();
        System.out.println("List of Students:");
        while (it.hasNext()) {
                Student s = (Student) it.next();
                System.out.println(s.toString());
        }
}

public void search(String usn) {
        Query q = session.createQuery("from student where usn = :usn");
        q.setParameter("usn", usn);
        List l = q.getResultList();
        if (l.isEmpty()) {
                System.out.println("Not Found");
        } else {
                Iterator it = l.iterator();
                System.out.println("Student Details:");
                while (it.hasNext()) {
                        Student s = (Student) it.next();
                        System.out.println(s.toString());
                }
        }
}

public static void main(String[] args) {
        Student_Main sm = new Student_Main();
        Scanner sc = new Scanner(System.in); // creating object of Scanner class

        lp: while (true) // labeling the while loop
        {
                // displaying the menu
                System.out.println("1: Insert");
                System.out.println("2: Delete");
                System.out.println("3: Search");
                System.out.println("4: Display");
                System.out.println("7: exit");
                System.out.print("Make your choice: ");
                int ch = sc.nextInt(); // reading user's choice
                switch (ch) {
```

```
                        case 1: // for Right Angled Triangle
                                System.out.print("Enter the Student Details to insert \n");
                                System.out.print("Enter the Student id \n");
                                int id = sc.nextInt();
                                System.out.print("Enter the Student usn \n");
                                String usn = sc.next();
                                System.out.print("Enter the Student name \n");
                                String name = sc.next();
                                System.out.print("Enter the Student address \n");
                                String add = sc.next();
                                System.out.print("Enter the Student totalmarks \n");
                                int tm = sc.nextInt();
                                sm.insert(id, usn, name, add, tm);
                                break;
                        case 2:
                                System.out.print("Enter student id to delete\n");
                                System.out.print("Enter the Student id \n");
                                usn = sc.next();
                                sm.delete(usn);
                                break;
                        case 3:
                                System.out.print("Enter student id to search\n");
                                System.out.print("Enter the Student id \n");
                                usn= sc.next();
                                sm.search(usn);
                                break;
                        case 4:
                                sm.display();
                                break;
                        case 7:
                                break lp;
                        default:
                                System.out.println("Invalid choice! Please make a valid choice. \n\n");
                        }
                }
        }
}
```

hibernate.cfg.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE hibernate-configuration PUBLIC
                "-//Hibernate/Hibernate Configuration DTD 3.0//EN"
                "http://hibernate.org/dtd/hibernate-configuration-3.0.dtd">
<hibernate-configuration>
   <session-factory>
      <property name="hibernate.connection.driver_class">com.mysql.cj.jdbc.Driver</property>
      <property name="hibernate.connection.password">rvce</property>
      <property name="hibernate.connection.url">jdbc:mysql://localhost:3306/student</property>
      <property name="hibernate.connection.username">root</property>
      <property name="hibernate.dialect">org.hibernate.dialect.MySQLDialect</property>
```

```
        <property name="hibernate.connection.pool_size">10</property>
           <property name="show_sql">true</property>
           <property name="hibernate.hbm2ddl">create</property>
          <mapping class = "my.StudentBean.Student"/>
    </session-factory>
</hibernate-configuration>
```