6th day

practice session

Q.1 Give 10% discount on every product?

```
package p1;
public class Product {
    int price;
    String name;

   public Product(int price, String name) {
      this.price = price;
      this.name = name;
   }

   public int getPrice() {
      return price;
   }

   public String getName() {
      return name;
   }
}
package p1;
import java.util.ArrayList;
import java.util.List;
import java.util.stream.Collectors;

public class A {
   public static void main(String[] args) {
      ArrayList<Product> data = new ArrayList<Product>();
      data.add(new Product(100, "T-shirt"));
      data.add(new Product(110, "shirt"));
      data.add(new Product(100, "shoes"));
      data.add(new Product(90, "pen"));

      List<Integer> newList = data.stream()
            .map(product -> product.getPrice() - (product.getPrice() * 10) / 100)
            .collect(Collectors.toList());
```

```
        System.out.println(newList);
    }
}
```

OUTPUT:-[90, 99, 90, 81]

Q.2 How many T-shirts are present in it?

```
package p2;
public class Product {
    int price;
    String name;

    public Product(int price, String name) {
        this.price = price;
        this.name = name;
    }

    public int getPrice() {
        return price;
    }

    public String getName() {
        return name;
    }
}
package p2;
import java.util.ArrayList;
import java.util.List;
import java.util.stream.Collectors;

public class A {
    public static void main(String[] args) {
        ArrayList<Product> data = new ArrayList<Product>();
        data.add(new Product(100, "T-shirt"));
        data.add(new Product(110, "shirt"));
        data.add(new Product(100, "T-shirt"));
        data.add(new Product(90, "pen"));
```

```
        List<Product> newList = data.stream()
                .filter(product -> product.getName().equals ("T-shirt"))
                .collect(Collectors.toList());

        System.out.println(newList);
    }
}
```

OUTPUT:-[Product@2a3046da, Product@2a098129]

Q.3 difference between String Buffer & String Builder?

//String builder class is muttable & metthods are in it not synchronized. & performense is good.

//String Buffer class is also muttable but method are synchronized thats why performace is not good.

```
package p1;
public class A{
        public static void main(String [] args) {
              StringBuilder s1 = new StringBuilder("mike");
               s1.append("Thyson");
               System.out.println(s1);
        }
}
```

OUTPUT:mikeThyson

Q.4 Give a riverse string mike Thyson.

```
package p1;
public class A{
        public static void main(String [] args) {
              StringBuilder s1 = new StringBuilder("mike");
               s1.append("Thyson");
               System.out.println(s1.reverse());//
               System.out.println(s1.lastIndexOf("mike"));
        }
}
```

OUTPUT:nosyhTekim // 0

Q.5 String buffer

```
package p1;
public class A{
        public static void main(String [] args) {
              StringBuffer s1 = new StringBuffer("mike");
               s1.append("Thyson");
               System.out.println(s1);//

              System.out.println(s1.reverse());
       }
}
```

OUTPUT:-mikeThyson//nosyhTekim

immutable:- immutable class i cannot change value of the class of object.

Q.6 what is singleton design?

```
package p1;
public class A{
    static A a1=null;
    private A(){
    }
    public static A getInstance() {
        if(a1 = null) {
             a1 = new A();
             return a1;
        }
        return a1;
    }
}
public class B {
      public static void main(String [] args){
           A a1 = A.getInstance();
           A a2 = A.getInstance();
           System.out.println(a1);
           System.out.println(a2);
      }
}
```