

## **Source Code:**

### a. String Type:

```
import java.util.ArrayList;
import java.util.HashSet;
import java.util.List;
import java.util.Set;

public class Collections {
    public static void main(String[] args) {
        List<String> list = new ArrayList<>();
        list.add("Apple");
        list.add("Banana");
        list.add("Cherry");

        System.out.println("List:");
        for (String item : list) {
            System.out.println(item);
        }

        Set<String> set = new HashSet<>();
        set.add("Apple");
        set.add("Banana");
        set.add("Cherry");
        set.add("Banana"); // duplicates are not allowed in a set
        set.add("Mango");
        set.add("Apple");
        System.out.println("Set:");
        for (String item : set) {
            System.out.println(item);
        }
    }
}
```

### b. Integer, Float and Double Data Type:

```
import java.util.ArrayList;
import java.util.HashSet;
import java.util.List;
import java.util.Set;

public class Collections1 {
    public static void main(String[] args) {
```

```

// ArrayList of Integers
List<Integer> intList = new ArrayList<>();
intList.add(1);
intList.add(6);
intList.add(8);

System.out.println("Integer List:");
for (Integer item : intList) {
    System.out.println(item);
}

// HashSet of Floats
Set<Float> floatSet = new HashSet<>();
floatSet.add(1.0f);
floatSet.add(2.5f);
floatSet.add(3.14f);
floatSet.add(2.568f); // duplicates are not allowed in a set

System.out.println("Float Set:");
for (Float item : floatSet) {
    System.out.println(item);
}

// ArrayList of Doubles
List<Double> doubleList = new ArrayList<>();
doubleList.add(3.14159);
doubleList.add(2.718286);
doubleList.add(1.6180374);

System.out.println("Double List:");
for (Double item : doubleList) {
    System.out.println(item);
}
}
}

```

## Output:

```
Collections.java × Console ×
1 package demo;
2
3 import java.util.ArrayList;
4 import java.util.HashSet;
5 import java.util.List;
6 import java.util.Set;
7
8 public class Collections {
9     public static void main(String[] args) {
10         List<String> list = new ArrayList<>();
11         list.add("Apple");
12         list.add("Banana");
13         list.add("Cherry");
14
15         System.out.println("List:");
16         for (String item : list) {
17             System.out.println(item);
18         }
19
20         Set<String> set = new HashSet<>();
21         set.add("Apple");
22         set.add("Banana");
23         set.add("Cherry");
24         set.add("Banana"); // duplicates are not allowed in a set
25         set.add("Mango");
26         set.add("Apple");
27         System.out.println("Set:");
28         for (String item : set) {
29             System.out.println(item);
30         }
31     }
32 }
```

<terminated> Collections [Java Application] C:\Users\Administrator\p2\y  
List:  
Apple  
Banana  
Cherry  
Set:  
Apple  
Cherry  
Mango  
Banana

```
Collections.java × Collections1.java × Console ×
3
4 import java.util.ArrayList;
5 import java.util.HashSet;
6 import java.util.List;
7 import java.util.Set;
8
9 public class Collections1 {
10     public static void main(String[] args) {
11         // ArrayList of Integers
12         List<Integer> intList = new ArrayList<>();
13         intList.add(1);
14         intList.add(6);
15         intList.add(8);
16
17         System.out.println("Integer List:");
18         for (Integer item : intList) {
19             System.out.println(item);
20         }
21
22         // HashSet of Floats
23         Set<Float> floatSet = new HashSet<>();
24         floatSet.add(1.0f);
25         floatSet.add(2.5f);
26         floatSet.add(3.14f);
27         floatSet.add(2.568f); // duplicates are not allowed in a set
28
29         System.out.println("Float Set:");
30         for (Float item : floatSet) {
31             System.out.println(item);
32         }
33
34         // ArrayList of Doubles
35         List<Double> doubleList = new ArrayList<>();
36         doubleList.add(3.14159);
37         doubleList.add(2.718286);
38         doubleList.add(1.6180374);
39
40         System.out.println("Double List:");
41         for (Double item : doubleList) {
42             System.out.println(item);
43         }
44     }
45 }
```

<terminated> Collections1 [Java Application] C:\Use  
Integer List:  
1  
6  
8  
Float Set:  
1.0  
2.5  
2.568  
3.14  
Double List:  
3.14159  
2.718286  
1.6180374