

## Programs on collection

1)

```
import java.util.ArrayList;

public class Demo {

    public static void main(String[] args) {

        ArrayList a1 = new ArrayList(); a1.add("Good Morning");
        a1.add(25);
        a1.add('S'); a1.add(true);
        a1.add(10.05);

        ArrayList a2 = new ArrayList(); a2.addAll(a1);

        System.out.println(a2);

    }
}
```

Output:

[Good Morning, 25, S, true, 10.05]

2)

```
import java.util.ArrayList;
```

```
public class Demo2 {
```

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

```
        ArrayList a1 = new ArrayList(); a1.add("chutki");  
a1.add("bheem");; a1.add(6);; a1.add(false);
```

```
        ArrayList a2 = new ArrayList(); a2.add("Good Morning");  
a2.add(25);  
a2.add('S');; a2.add(true);  
a2.add(10.05);
```

```
        a1.addAll(1,a2);
```

```
        System.out.println(a1);
```

```
    }  
}
```

Output:

[chutki, Good Morning, 25, S, true, 10.05, bheem, 6, false]

3)

```
import java.util.ArrayList;
import java.util.Iterator;
```

```
public class Demo3 {
```

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

```
        ArrayList a1 = new ArrayList();
```

```
        a1.add("aman");
        a1.add("perisha");
        a1.add("glen");
        a1.add("felix");
        a1.add("Smith");
        a1.add("allen");
```

```
        Iterator i = a1.iterator();
```

```
        while(i.hasNext())
        {
            String s = (String) i.next();

            if(s=="felix")
            {
                i.remove();
            }
        }
```

```
        System.out.println(a1);
```

```
    }
```

Output:

[aman, perisha, glen, Smith, allen]

4)

```
public class Laptop implements Comparable {

    String brand; int price; int
    ram;

    public Laptop(String brand, int price,
int ram) {

        this.brand = brand; this.price = price;
        this.ram = ram;
    }

    @Override
    public String toString() {
        return "Laptop [brand=" + brand + ", price=" + price + ", ram=" + ram + "];"
    }

    @Override
    public int compareTo(Object o) { Laptop l = (Laptop) o;

        if(this.ram > l.ram)
        {
            return 1;
        }
        else if(this.ram < l.ram)
        {
            return -1;
        }
        else {
            return 0;
        }
    }
}
```

```

import java.util.ArrayList;
import java.util.Collections;

public class LaptopDriver {

    public static void main(String[] args) {

        ArrayList a1 = new ArrayList(); a1.add(new Laptop("Dell",50000,128));
        a1.add(new Laptop("Hp",40000,64)); a1.add(new
        Laptop("Acer",60000,256));

        Collections.sort(a1);

        for(Object i : a1)
        {
            System.out.println(i);
        }
    }
}

```

Output:

Laptop [brand=Hp, price=40000, ram=64]

Laptop [brand=Dell, price=50000, ram=128] Laptop [brand=Acer, price=60000, ram=256]

5)

```
import java.util.ArrayList;
```

```
import java.util.Scanner;
```

```
public class Runner {
```

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

```
        Scanner sc = new Scanner(System.in);  
        System.out.println("enter size");
```

```
        int size = sc.nextInt();
```

```
        int[] a = new int[size];
```

```
        System.out.println("length of an array "+a.length );
```

```
        for(int i=0 ; i<a.length ; i++)  
        {  
            a[i]=sc.nextInt();  
        }
```

```
        System.out.println("elements inside array");
```

```
        for(int i=0 ; i<a.length ; i++)  
        {  
            System.out.print(a[i]+" ");  
        }
```

```
        System.out.println("=====");
```

```
        ArrayList<Integer> l = new ArrayList();
```

```
        for(int i : a)  
        {  
            if(i%2==0)  
            {  
                l.add(i);  
            }  
        }
```

```
        System.out.println(" elements in ArrayList "+l);
```

```
        System.out.println("even numbers from 21 to 35");
```

```
        for(int i : l)  
        {  
            if(i > 21 && i<35)  
            {
```

```

        System.out.println(i);
    }
}
}

```

Output:

```

enter size
5
length of an array 5
10
29
32
49
34
elements inside array
10 29 32 49 34 =====
elements in ArrayList [10, 32, 34]
even numbers from 21 to 35
32
34

```