## 2D Array Multiplication

```
public class Main
{
      public static void main(String[] args) {
            int arr[][]={{1,2,3},{4,5,6}};
            for(int i=0;i<arr.length;i++){</pre>
              for(int j=0;j<arr[i].length;j++){</pre>
                arr[i][j] *=2;
                 System.out.print(arr[i][j]+" ");
                }
              }
           }
     }
```

### Sum of two 2D Array

```
public class Main
{
     public static void main(String[] args) {
           int arr[][]=\{\{1,2,3\},\{4,5,6\}\};
           int a[][]={{7,8,9},{10,11,12}};
           int sum[][]=new int[2][3];
           for(int i=0;i<arr.length && i<a.length;i++){</pre>
              for(int j=0;j<arr[i].length && j<a[i].length;j++){</pre>
                sum[i][j]+=(arr[i][j]+a[i][j]);
                 System.out.print(sum[i][j]+" ");
                }
             }
           }
     }
```

## **Sum 2D Array**

```
public class Main
{
     public static void main(String[] args) {
           int arr[][]={{1,2,3},{4,5,6}};
           int sum=0;
           for(int i=0;i<arr.length;i++){</pre>
             for(int j=0;j<arr[i].length;j++){</pre>
                sum+=arr[i][j];
                System.out.print(sum+" ");
                }
           }
     }
```

#### List

```
import java.util.*;
public class Main
{
     public static void main(String[] args) {
           List<Integer> list=new ArrayList<>();
           list.add(1);
    list.add(2);
    list.add(3);
    list.add(7);
    list.add(5);
           int sum=0;
           int pro=1;
           System.out.println(list);
           for(int i:list){
             sum+=i;
             pro*=i;
            }
    System.out.println("Sum is "+sum);
    System.out.println("Product is "+pro);
```

}

}

#### Set

```
import java.util.*;
public class Main
{
     public static void main(String[] args) {
          Set<Integer> set=new TreeSet<>();
          set.add(1);
    set.add(2);
    set.add(3);
    set.add(2);
    set.add(5);
    set.add(7);
    set.add(2);
    set.add(2);
    set.add(5);
    set.add(1);
          System.out.println(set);
          }
```

# **Hash Map**

```
import java.util.*;
public class Main
{
    public static void main(String[] args) {
        Map<Character,Integer> map=new HashMap<>();
        map.put('f',7);
        map.put('a',26);
        System.out.println(map);
    }
}
```

# **Linked Hash Map**

```
import java.util.*;
public class Main
{
    public static void main(String[] args) {
        Map<Character,Integer> map=new LinkedHashMap<>);
        map.put('f',7);
        map.put('a',26);
        System.out.println(map);
    }
}
```