

**ASSIGNMENT 2**

**JAVA PROGRAMMING**

(3)

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## Assignment - 3

```
Import java.util.ArrayList  
public class main {  
    public static void main  
        (String [ ] args) {  
        ArrayList <String> obj = new  
        ArrayList <> ();  
        obj.add ("one");  
        obj.add ("two");  
        obj.add ("three");  
        System.out.println ("ArrayList " + obj);  
    } }
```

ArrayList in Collection

```
Import java.util.List;  
Import java.util.ArrayList;  
class main {  
    public static void main  
        (String [ ] args) {  
        List <Integer> numbers = new ArrayList  
            ();
```

```
number.add(1);
number.add(2);
number.add(3);
System.out.println("List: " + numbers);
int getNumber = numbers.get(2);
System.out.println("Accured element: "
+ getNumber);
int removeNumber = numbers.remove(1);
System.out.println("Removed Element: "
+ removeNumber);
```

Linked list :-

```
Import java.util.List;
Import java.util.LinkedList;
Class Main {
    public static void main
        (String [] args) {
        List<Integer> number = new LinkedList();
        number.add(1);
        number.add(2);
        number.add(3);
```

```
System.out.println("List " + number);
int number = number.get(2);
System.out.println("Accessed element: "
+ number);
int index = number.indexOf(2);
System.out.println("pointer of 2 is"
+ index);
int removedNumber
= number
remove(1);
System.out.println("Removed element"
+ removedNumber);
```

### Vector:

```
Import java.util.Iteration
Import java.util.Vector
Import java.util.Collections
class main{
    public static void main (String [ ] args){
        Vector<String> fruits = new linked-
list<String>();
        fruits.add("Apple");
        fruits.add("Mango");
        fruits.add("Orange");
```

System.out.println ("linked list = " + fruits);  
fruit.add (2, "Banana");  
System.out.println ("linked list " + fruits);  
Collections.sort (fruits);  
System.out.println ("fruits in reverse order" + fruits);  
Collection.sort (fruits);  
System.out.println ("fruits in Ascending order" + fruits);  
Collections.sort (fruits);  
System.out.println ("Fruits in descending order" + fruits);  
System.out.println ("fruits in the basket");  
for (int i=0; i<fruits.size(); i++){  
 System.out.println ("fruits in the bracket");  
 for (int i=fruits.size()-1; i>=0;  
 System.out.println (fruits.get(i));  
 }  
}

Stack (push, pop, peek, empty)

Import. java.lang;

Import. java.util.Stack

Class main {

    public static void main (String [] args) {

        Stack <String> fruits = new Stack <> ();

        fruits.push ("Apple");

        fruits.push ("orange");

        fruits.push ("Mango");

        System.out.println ("Stack: " + fruits);

        String remove = fruits.pop();

        System.out.println ("Stack: " + remove);

        fruits.push ("pineapple");

        System.out.println ("Stack: " + fruits);

        String display = fruits.peek();

        System.out.println ("Stack: " + display);

        int position = fruits.size();

        System.out.println ("Position of fruit: " + position);

        boolean e = fruits.empty();

        System.out.println ("Is the stack empty: " + e);

        fruits.clear();

```
boolean = fruits.empty();  
System.out.println("Is the Stack is  
empty : "+rl);
```

{}

## Queue

```
Import java.lang.*;  
Import java.util.LinkedList;  
Import java.util.Queue;  
Class main {  
    public static void main (String [] args) {  
        Queue <String> fruits = new LinkedList();  
        fruits.add ("Apple");  
        fruits.add ("Orange");  
        fruits.add ("Mango");  
        System.out.println ("Queue = " + fruits);  
        String su = fruits.remove();  
        System.out.println ("Queue " + r);  
        System.out.println ("Queue " + s1 + fruit);  
        String display = fruits.peek();  
        System.out.println ("Stack " + fruits);  
        boolean e = fruits.isEmpty();
```

```
System.out.println ("Is the queue is empty - "+e);
fruits.clear();
boolean1 = fruits.isEmpty();
System.out.println ("is the queue is empty "+e);
}
}
```

## HashMap

```
Import java.util.map;
```

```
Import java.util.HashMap;
```

```
class main {
```

```
public static void main (String[] args) {
    Map<Integer, String> fruits = new HashMap<>();
```

```
fruits.put (1, "Apple");
```

```
fruits.put (2, "orange");
```

```
fruits.put (3, "Mango");
```

```
System.out.println ("Map : "+fruits);
```

```
System.out.println ("values "+fruits.values());
```

```
System.out.println ("Entries "+entrySet())
    + fruits.entrySet());
```

```
boolean value = fruits.remove (2, "orange");
```

```
system.out.println("Available in the  
bucket : "+value1);  
fruits.replace(3,"Mango","Banana");  
system.out.println("After replacing  
the item "+fruits);
```

y }