

Name : Kshitij Shelke  
Ref. No. SCS/CG/2021/024

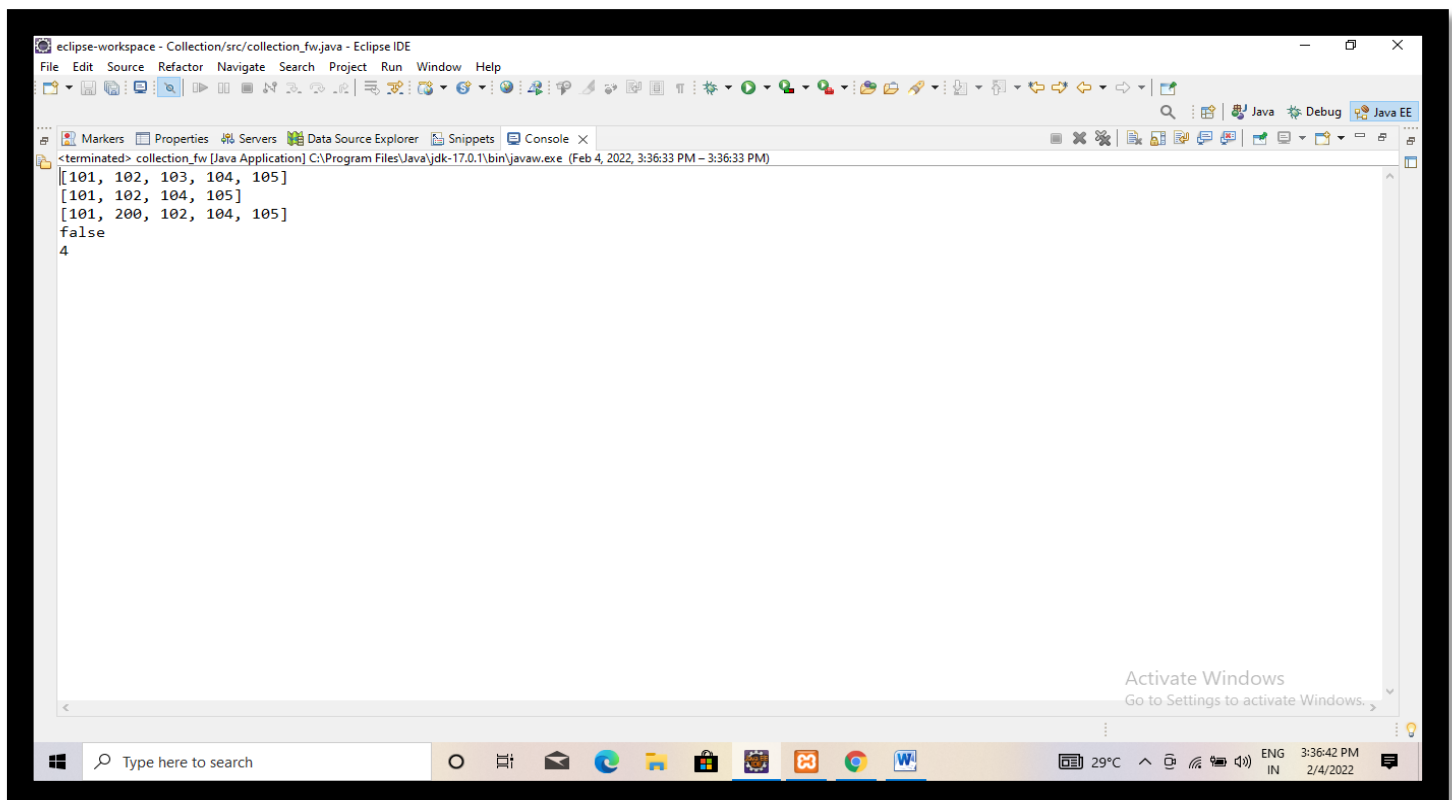
### 1.) Collection List:

#### Code:

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

public class collection_fw {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        List<Integer>list=new ArrayList<Integer>();
        list.add(101);
        list.add(102);
        list.add(103);
        list.add(104);
        list.add(105);
        System.out.println(list);
        list.remove(2);
        System.out.println(list);
        list.add(1,200);
        System.out.println(list);
        System.out.println(list.contains(103));
        System.out.println(list.indexOf(105));
    }
}
```



## 2. Collection Add List PGM

### Source Code:

```
public class Employee {
    private int empid;
    private String empName;
    private float empSal;
    public int getEmpid()
    {
        return empid;
    }
    public void setEmpid(int empid) {
        this.empid=empid;
    }
    public String getEmpName() {
        return empName;
    }
    public void setEmpName( String empName) {
        this.empName = empName;
    }
    public float getEmpSal() {
        return empSal;
    }
    public Employee(int empid,String empName,float empSal) {
        super();
        this.empid=empid;
        this.empName=empName;
        this.empSal=empSal;
    }
    public String toString()
{
    return
    "EmployeeArrayList[empid="+empid+",empName="+empName+",
    empsal="+empSal+"]";
}
}
```

### Second Class to invoke methods

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

```

import java.util.List;

public class EmployeeListDemo {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        List<Employee> employee = new ArrayList<Employee>();
        Employee emp = new Employee(101, "Aaj", 2020.80f);
        employee.add(emp);
        employee.add(new Employee(103, "Rohan", 20256.f));
        employee.add(new Employee(105, "Renu", 20258.f));
        employee.add(new Employee(104, "Neha", 20456.f));
        employee.add(new Employee(102, "Zombie", 20956.f));
        System.out.println(employee);
        Iterator it = employee.listIterator();
        while(it.hasNext()) {
            Employee emp = (Employee) it.next();

            System.out.println(emp.getEmpId()+"\t"+emp.getEmpName()+"\t"+emp.
getEmpSal());
        }
        ArrayList<String> al = new ArrayList<String>();
        for(int i=0; i<employee.size(); i++) {
            Employee emp = employee.get(i);
            String name = emp.getEmpName();
            al.add(name);
        }
        Collections.sort(al);
        System.out.println(al);
        Collections.reverse(al);
        System.out.println(al);
    }
}

```

The screenshot shows the Eclipse IDE interface with the following output in the console:

```

[EmployeeArrayList[empid=101,empName=Aaj, empsal=2020.8], EmployeeArrayList[empid=103,empName=Rohan, empsal=20256.0], EmployeeArrayList[empid=105,empName=Renu, empsal=20258.0], EmployeeArrayList[empid=104,empName=Neha, empsal=20456.0], EmployeeArrayList[empid=102,empName=Zombie, empsal=20956.0]]
101    Aaj    2020.8
103    Rohan  20256.0
105    Renu   20258.0
104    Neha   20456.0
102    Zombie  20956.0
[Aaj, Neha, Renu, Rohan, Zombie]
[Zombie, Rohan, Renu, Neha, Aaj]

```

The IDE window title is "eclipse-workspace - Collection/src/EmployeeListDemo.java - Eclipse IDE". The console output is timestamped "Feb 4, 2022, 3:42:03 PM - 3:42:03 PM".

### 3. Collection Queue

#### Source Code:

```
package EmployeeListDemo;

import java.util.ArrayDeque;

public class QueueDemo {

    public static void main(String[] args) {
        ArrayDeque<String>arrayDeque=new ArrayDeque<String>();
        arrayDeque.push("Rohan");
        arrayDeque.push("Raj");
        arrayDeque.push("Ravi");
        arrayDeque.push("Kunal");
        System.out.println(arrayDeque);
        arrayDeque.pop();
        System.out.println(arrayDeque);
        arrayDeque.pop();
        System.out.println(arrayDeque);

    }

}
```

