

Name :- Shubham
B. Pasale

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));
    }
}
```

Output: -

```
[101, 102, 103, 104, 105]
[101, 102, 104, 105]
[101, 200, 102, 104, 105]
false
4
```

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,"Shubham",2020.80f);
        employee.add(Emp);
        employee.add(new
        Employee(103,"Shivraj",20256.f));
        employee.add(new Employee(105,"Ajit",20258.f));
        employee.add(new Employee(104,"Vishal",20456.f));
        employee.add(new Employee(102,"Kunal",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);
    }

}

```

Output:-

```

[EmployeeArrayList[empid=101,empName=Shubham, empsal=2020.8],
EmployeeArrayList[empid=103,empName=Shivraj, empsal=20256.0],
EmployeeArrayList[empid=105,empName=Ajit, empsal=20258.0],
EmployeeArrayList[empid=104,empName=Vishal, empsal=20456.0],
EmployeeArrayList[empid=102,empName=Kunal, empsal=20956.0]]
101      Shubham      2020.8
103      Shivraj      20256.0
105      Ajit         20258.0
104      Vishal       20456.0
102      Kunal        20956.0

```

[Shubham, Vishal, Ajit, Shivraj, Kunal]
[Kunal, Shivraj, Ajit, Vishal, Shubham]

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("Sumit");
        arrayDeque.push("Vishal");
        arrayDeque.push("Shivraj");
        arrayDeque.push("Shubham");
        System.out.println(arrayDeque);
        arrayDeque.pop();
        System.out.println(arrayDeque);
        arrayDeque.pop();
        System.out.println(arrayDeque);

    }

}
```

Output: -

```
[Shubham, Shivraj, Vishal, Sumit]
[Shivraj, Vishal, Sumit]
[Vishal, Sumit]
```