Name : Nandkishor Desai

Program Name : Collection Framework

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1) Collection: Student ArrayList

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


public class StudentArrayList2 {


	public static void main(String[] args) {
		List<Student1> sb=new ArrayList<Student1>();
		sb.add(new Student1(101, "Rohit", 9588400, 66.70f));
		sb.add(new Student1(102, "Vishal", 9588405, 66.40f));
		sb.add(new Student1(103, "Akash", 9588404, 66.80f));
		sb.add(new Student1(104, "Virat", 9588445, 66.50f));
		System.out.println(sb);
		Iterator it=sb.listIterator();
		while (it.hasNext()) {
			Student1 sb1=(Student1)it.next();

	System.out.println(sb1.getId()+"\t"+sb1.getName()+"\t"+sb1.getMobile()+"\t"+sb1.getMark(
));



		}



	}


}
```

// Output

[Student [id=101, Name=Rohit, mobile=9588400, mark=66.7], Student [id=102, Name=Vishal, mobile=9588405, mark=66.4], Student [id=103, Name=Akash, mobile=9588404, mark=66.8], Student [id=104, Name=Virat, mobile=9588445, mark=66.5]]

101 Rohit 9588400 66.7

102 Vishal 9588405 66.4

103 Akash 9588404 66.8

104 Virat 9588445 66.5

---

2) Collection: LinkedList

```
import java.util.LinkedList;

import java.util.List;


public class LinkedListDemo {


	public static void main(String[] args) {

		List<String> list=new LinkedList<String>();


		list.add("pune");

		list.add("mumbai");

		list.add("latur");

		System.out.println(list);

		list.add(3, "kolhapur");

		System.out.println(list);

		list.add(2, "Nanded");

		System.out.println(list);



	}


}
```

//Output

```
[pune, mumbai, latur]
[pune, mumbai, latur, kolhapur]
[pune, mumbai, Nanded, latur, kolhapur]
```

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3) Collection: EmployeeListDemo

```
import java.util.ArrayList;
import java.util.Collection;
import java.util.Collections;
import java.util.Iterator;
import java.util.List;
import java.util.stream.Collector;

public class EmployeeListDemo {

	public static void main(String[] args) {
		List<Employee> employees=new ArrayList<Employee>();
		Employee Emp = new Employee(101, "Raj", 2020.20f);
		employees.add(Emp);
		employees.add(new Employee(103, "Krishna", 9090.20f));
		employees.add(new Employee(104, "Rahul", 4040.20f));
		employees.add(new Employee(105, "veer", 5090.20f));
		employees.add(new Employee(106, "Ajinkya", 1090.20f));
		System.out.println(employees);
		Iterator it=employees.listIterator();
		while (it.hasNext()) {
			Employee emp=(Employee)it.next();

	System.out.println(emp.getEmpid()+"\t"+emp.getEmpName()+"\t"+emp.getEmsal()
);

		}
		ArrayList<String>a1=new ArrayList<String>();
		for (int i = 0; i < employees.size(); i++) {
			Employee emp=employees.get(i);
			String name=emp.getEmpName();
			a1.add(name);


		}
		Collections.sort(a1);
		System.out.println(a1);
		Collections.reverse(a1);
		System.out.println(a1);

	}

}
```

//Output

[Employee [empid=101, empName=Raj, emsal=2020.2], Employee [empid=103, empName=Krishna, emsal=9090.2], Employee [empid=104, empName=Rahul, emsal=4040.2], Employee [empid=105, empName=veer, emsal=5090.2], Employee [empid=106, empName=Ajinkya, emsal=1090.2]]

101 Raj 2020.2

103 Krishna 9090.2

104 Rahul 4040.2

105 veer 5090.2

106 Ajinkya 1090.2

[Ajinkya, Krishna, Rahul, Raj, veer]

[veer, Raj, Rahul, Krishna, Ajinkya]