

Lab 4 -Answers

1.)

```
package Student;

public class Student {
    private int StuId;
    private static int max=100;
    private String name;
    private String mobile;
    private String degree;

    public int getStuId() {
        return StuId;
    }
    public void setStuId(int stuId) {
        StuId = stuId;
    }

    public String getName() {
        return name;
    }
    public void setName(String name) {
        this.name = name;
    }

    public String getMoblile() {
        return mobile;
    }
    public void setMoblile(String moblile) {
        this.mobile = moblile;
    }

    public String getDegree() {
        return degree;
    }
    public void setDegree(String degree) {
        this.degree = degree;
    }

    public Student(String name,String degree,String mobile){
        this.StuId=getNextStudentID();
        this.mobile=mobile;
        this.name=name;
        this.degree=degree;
    }
    public void Print(){
        System.out.println("ID:" +this.StuId);
        System.out.println("Name:" +this.name);
        System.out.println("Mobile:" +this.mobile);
        System.out.println("Degree:" +this.degree);
    }

    private static int getNextStudentID(){
        max=max-1;
        return max;
    }
}
```

```

package Student;

import java.util.ArrayList;
import java.util.Arrays;
import java.util.List;

public class StudentApp {

    public static void main(String[] args) {
        List<Student>studentList=new ArrayList<Student>();
        studentList.add(new Student("Amila","SE","0774376478"));
        studentList.add(new Student("Kamal","IT","0774376208"));
        studentList.add(new Student("Piyal","IT","0775376445"));
        studentList.add(new Student("Suneera","SE","0779376477"));
        studentList.add(new Student("Ruwan","BS","0774372548"));

        for(int i=0;i<studentList.size();i++){
            System.out.println("*****");
            Student st=studentList.get(i);
            st.Print();
            System.out.println("*****");
        }

    }

}

```

```

*****
ID:99
Name:Amila
Mobile:0774376478
Degree:SE
*****
*****
ID:98
Name:Kamal
Mobile:0774376208
Degree:IT
*****
*****
ID:97
Name:Piyal
Mobile:0775376445
Degree:IT
*****
*****
ID:96
Name:Suneera
Mobile:0779376477
Degree:SE
*****
*****
ID:95
Name:Ruwan
Mobile:0774372548
Degree:BS
*****

```

2.)

```
package Feet;

class Feet {
    private int feet;
    private int inches;

    public Feet(int feet, int inches){
        this.feet=feet;
        this.inches=inches;
    }

    public Feet(Feet len) {
        this.feet=len.feet;
        this.inches=len.inches;
    }

    public void add (Feet f1,Feet f2){
        this.inches=f1.inches + f2.inches;
        this.feet=f1.feet+f2.feet;
        if(this.inches >=12){
            this.feet++;
            this.inches=this.inches-12;
        }
    }

    public void add(Feet f1){
        this.add(this, f1);
    }

    public static Feet add(Feet f1, Feet f2, Feet f3){
        Feet newlen=new Feet(f1);
        newlen.add(f1, f2);
        newlen.add(f3);
        return newlen;
    }

    public void print(){
        System.out.print(this.feet + "" + this.inches + " \" ");
    }

    public void println(){
        this.print();
        System.out.println ();
    }

    public void print (String msg){
        System.out.print (msg+ " ");
        this.print();
    }

    public static void print(Feet f1){
        f1.print();
    }
}
```

```
package Feet;
```

```
public class Main {  
    public static void main(String args[]){  
        Feet f1=new Feet(2,2);  
        f1.println();  
        Feet f2=new Feet(5,6);  
        Feet f3=new Feet(10,11);  
        Feet f4=new Feet(2,10);  
        Feet f5=new Feet(f1);  
        f4.print("Feet F4");  
        Feet f6;  
        f6=Feet.add(f2,f3,f4);  
        f6.println();  
    }  
}
```

```
}
```