```java
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
class Employeee
{
    int id;
    String name, desig;
    Employeee()
    {
        id = -1;
        name = "unavailable";
        desig = "unavailable";
    }
    protected void set(int id, String name, String desig)
    {
        this.id = id;
        this.name = name;
        this.desig = desig;
    }
    void get()
    {
        System.out.println("Employee Details...");
        System.out.println("Name        : "+name);
        System.out.println("ID          : "+id);
        System.out.println("Designation : "+desig);
    }
    void bonus()
    {
        System.out.print("The bonus is calculated ");
    }
}

class HourlyEmployee extends Employeee
{
    int worked; double rate;
    HourlyEmployee()
    {
        super();
    }
    void set(int id, String name, String desig, double rate)
    {
        super.set(id, name, desig);
        this.rate = rate;
    }
    void weekly()
    {
        System.out.println("This week's earning is : "+(rate*worked));
    }
```

```
    @Override void bonus()
    {
        System.out.println("weekly as : "+(rate*worked*0.25));
    }
}

class SalariedEmployee extends Employeee
{
    double salary;
    SalariedEmployee()
    {
        super();
    }
    void set(int id, String name, String desig, double salary)
    {
        super.set(id, name, desig);
        this.salary = salary;
    }
    void weekly()
    {
        System.out.println("Weekly earning : "+(salary/4));
    }
    @Override void bonus()
    {
        super.bonus();
        System.out.println("monthly as : "+(salary*0.25));
    }
}

class ExecutiveEmployee extends SalariedEmployee
{
    double bonusper;
    ExecutiveEmployee()
    {
        super();
        this.bonusper = -1;
    }
    void set(int id, String name, double salary, double bonusper)
    {
        super.set(id, name, "Executive", salary);
        this.bonusper = bonusper;
    }
    @Override void bonus()
    {
        System.out.println("The annual bonus is : "+bonusper);
    }
}
```

```
public class employee
{
    static BufferedReader x = new BufferedReader (new
InputStreamReader(System.in));
    static void what()
    {
        System.out.println("What do you want to do?");
        System.out.println("1. Create");
        System.out.println("2. Retrive");
        System.out.print("Make selection... ");
    }

    static void exemp() throws IOException
    {
        ExecutiveEmployee em = new ExecutiveEmployee();
        System.out.print("1. Enter name : ");
        String name = x.readLine();
        System.out.println("2. Enter ID : ");
        int id = Integer.parseInt(x.readLine());
        System.out.println("3. Enter salary : ");
        String salary = x.readLine();
        System.out.println("Creating Salaried Employee...");
        em.set(id, name, salary);
        System.out.println("Employee created successfully!");
    }

    static void hoemp() throws IOException
    {
        HourlyEmployee em = new HourlyEmployee();
        System.out.print("1. Enter name : ");
        String name = x.readLine();
        System.out.println("2. Enter ID : ");
        int id = Integer.parseInt(x.readLine());
        System.out.println("3. Enter rate : ");
        double rate = Double.parseDouble(x.readLine());
        System.out.println("Creating Hourly Employee...");
        em.set(id, name,"Hourly", rate);
        System.out.println("Employee created successfully!");
    }

    static void salemp() throws IOException
    {
        SalariedEmployee em = new SalariedEmployee();
        System.out.print("1. Enter name : ");
        String name = x.readLine();
        System.out.println("2. Enter ID : ");
        int id = Integer.parseInt(x.readLine());
        System.out.println("3. Enter salary : ");
```

```
        double salary = Double.parseDouble(x.readLine());
        System.out.println("Creating Salaried Employee...");
        em.set(id, name, "Salaried", salary);
        System.out.println("Employee created successfully!");
    }

    public static void main(String args[]) throws IOException
    {
        int c;
        System.out.println("Enter Employee id, name and designation...");
        System.out.println("Which type of employee are we going forward
with?");
        System.out.println("1. Executive Employee");
        System.out.println("2. Monthy Employee");
        System.out.println("3. Hourly Employee");
        System.out.print("Make selection... ");
        c = Integer.parseInt(x.readLine());
        switch(c)
        {
        case 1:
            exemp();
            break;
        case 2:
            salemp();
            break;
        case 3:
            hoemp();
            break;
        default:
            System.out.print("Bad choice!");
        }
        x.close();
    }
}
```

Program 2

```
public class maxprofit
{
    static void sort(int array[])
    {
        int l = array.length;
        for (int step = 1; step < l; step++)
        {
          int k = array[step];
          int j = step - 1;
          while (j >= 0 && k > array[j])
          {
            array[j + 1] = array[j];
            --j;
          }
          array[j + 1] = k;
        }
      }
    public static void main(String[] args)
    {
        int arr[] = {32, 56, 17, 60, 75, 29, 44, 81, 93};
        sort(arr);
        int trans1 = arr[0]-arr[arr.length-1];
        int trans2 = arr[1]-arr[arr.length-2];
        System.out.println("The maximum profit generated today is... "+
        (trans1+trans2));
    }
}
```