```
Data.txt
Maria   21      2.1
Jeffery 20      2.0
Douglas         22      3.1
Matthew         16      3.2
Kim     19      1.9
Monique         24      2.4
```

PERSON:

```java
import java.util.*;
import java.io.*;
public class PERSON {
private String name;
private int        age;
private float  gpa;

PERSON(String n, int a, float g)
{ name = n; age = a; gpa = g;}
public String getName()        {return name;}
public int getAge()     {return age;}
public float getGpa()  {return gpa;}
}
```

Project5:

```java
import java.io.BufferedReader;
import java.io.FileReader;

public class Project5 {
        public static void main(String[] args){
                PERSON[] a = new PERSON[6];
                double ageAve, gpaAve;
                try {
                        copyData("data.txt", a);
                } catch (Exception e) {
                        // TODO Auto-generated catch block
                        e.printStackTrace();
                }
                display(a);
                ageAve = computeAgeAverage(a);
                gpaAve = computeGpaAverage(a);
                display(ageAve, gpaAve);
                display(a,gpaAve);

        }
```

```java
public static void copyData(String fName, PERSON[] a) throws Exception{

        BufferedReader in = new BufferedReader(new FileReader(fName));
        String line;
        int i = 0;
        while((line = in.readLine()) != null){

                String token[] = line.split("\t",3);

                a[i] = new PERSON(token[0], Integer.parseInt(token[1]),
Float.parseFloat(token[2]));

                i++;
        };
        in.close();
}

public static void display(PERSON[] a){
        System.out.println("Teenage Students");
        for(int i = 0; i<a.length; i++){
                if(a[i].getAge() >=13 && a[i].getAge() <= 19){
                        System.out.printf("%-10s  %2d  %2.1f
%n",a[i].getName(),a[i].getAge(),a[i].getGpa());
                }
        }
}

public static double computeAgeAverage(PERSON[] a){
        double ageSum=0.0;
        for(int i = 0; i<a.length; i++){
                ageSum += a[i].getAge();
        }
        return  ageSum/a.length;
}

public static double computeGpaAverage(PERSON[] a){
        double gpaSum = 0.0;
        for(int i = 0; i<a.length; i++){
                gpaSum += a[i].getGpa();
        }
        return  gpaSum/a.length;
}

public static void display(double ageAve, double gpaAve){
```

```java
            System.out.printf("Average age is %2.1f, and average gpa is %2.1f %n", ageAve,
gpaAve);
        }

    public static void display(PERSON[] a, double gpaAve){
            System.out.printf("Student whose gpa is above the average gpa %2.1f %n" ,
gpaAve);
            for(int i = 0; i<a.length; i++){
                if(a[i].getGpa() >= gpaAve){
                        System.out.printf("%-10s  %2d %2.1f
%n",a[i].getName(),a[i].getAge(),a[i].getGpa());
                }
            }
    }
}
```

output:
```
Teenage Students
Matthew       16  3.2
Kim           19  1.9
Average age is 20.3, and average gpa is 2.45
Student whose gpa is above the average gpa 2.45
Douglas       22  3.1
Matthew       16  3.2
```