Create a program that generates a report that displays a list of students, classes they are enrolled in and the professor who teaches the class.

There are 3 files that provide the input data:

1. FinalRoster.txt

- List of students and professors (The first value of each row indicates if it is a student or professor; S means a student , P means a professor)
- Student and Professor have different data
  - Student row: "S",Student Name, StudentID
  - Professor row: "P", Professor Name, Professor ID, Highest Education

2. FinalClassList.txt

- List of classes and professor who teach them
- Each row contains the following information: ClassID, ClassName, ID of Professor who teach that class
  - The professor ID in this file matches the Professor ID in FinalRoster.txt.

3. FinalStudentClassList.txt

- List of classes the students are enrolled in. (StudentID, ClassID)
- Student ID matches Student ID in FinalRoster.txt and ClassID matches Class ID in FinalClassList.txt

The output shall be displayed on screen and stored in a file in the format described in FinalOutput.txt

You will need to apply all course concepts in your solution (file handling, class design, array/arraylist, loops, if/else conditional check)

1. Student and Professor should be derived from a super class "Person"

2. Every class should implement toString and equals method

3. Exception handling (e.g. FileNotFound etc.) must be implemented

4. Source code must be documented in JavaDoc format

5. **Do not hard code number of students, professors or classes.**

Required files

FinalRoster.txt

```
S,Student1,1234
S,Student2,1244
S,Student3,1254
P,Professor1,P1,MBA
S,Student4,1264
P,Professor2,P2,PhD
P,Professor3,P3,MS
```

FinalClassList.txt

```
CL1,Class1,P1
CL2,Class2,P2
CL3,Class3,P3
```

FinalStudentClassList.txt

```
1234,CL1
1234,CL2
1244,CL3
1254,CL2
1234,CL3
1254,CL3
```

```
Student1 - 1234
CL1    Class1        Professor1  MBA
CL2    Class2        Professor2  PhD
CL3    Class3        Professor3  MS

Student2 - 1244
CL3    Class3        Professor1  MS

Student3 - 1254
CL2    Class2        Professor2  PhD
CL3    Class3        Professor3  MS

Students with no class assignment

Student4 - 1264
```

- 30 % deduction for hard coding number of students, classes or professors or failure to implement exception handling.
- Points will be deduct for unoptimized code i.e. using 3 variables to store data of similar type (for e.g. student1, student2, student3) instead of an array or arraylist.