

Exercise 1

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|----------------|-----------------------------|
| Group Number: | 19 |
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Submission instructions:

- This is a group exercise, 1 submission per group. Early submission is allowed. You can submit as many times as you wish, but only keep 1 submission in Google drive.
- Please submit in PDF file format, another file type will have marks deducted.
- Name your file name in the format (Ex#_Group###.pdf) with your group number, eg: Ex1_Group01.pdf (Case sensitive).
- All submissions after the deadline will be granted ZERO marks.
- Plagiarism will be penalized with ZERO marks.

Deadline: Week 4 Sunday, 12.00 am (midnight)

Questions:

1. Make a *Person* class that contains a *name*. It should have a constructor that allows you to give the person a name.
2. Make a *Student* class that is a type of *Person*. It should have a *CGPA*. It should have a constructor that can specify the student's name and CGPA.
3. Make sure that the above two classes can allow collaborators to tell them to have new names, and students can be told to modify their CGPA.
4. Is the above a runnable application? Explain why it is or is not.

You may use BlueJ or any text editor to create the classes and then copy & paste the code below, or you may just type your code directly below.

Person class

Exercise1 > Person.java > Person > Person(String)

```
1  package Exercise1;
2
3  public class Person {
4      private String name;
5
6      //default constructor
7      Person (){}
8
9      //overloaded constructor
10     Person(String name){
11         this.name = name;
12     }
13
14     //setters
15     public void setName(String name){
16         this.name = name;
17     }
18
19     //getters
20     public String getName(){
21         return name;
22     }
23 }
24
```

Student class

```
Exercise1 > Student.java > Student
1  package Exercise1;
2
3  public class Student extends Person {
4      private double cgpa;
5
6      //default constructor
7      Student(){ }
8
9      //overloaded constructor
10     Student(String name, double cgpa) {
11         super(name);
12         this.cgpa = cgpa;
13     }
14
15     //setters
16     public void modifyCgpa(double cgpa){
17         this.cgpa = cgpa;
18     }
19
20     //getters
21     public double getCgpa(){
22         return cgpa;
23     }
24 }
```

Is it a runnable application? Why or why not?

This application can be compiled and can run as well but there will be no result or process produced because there is no main function to execute the application. The main function is recognized as the start of the programme.