Note:

1. Projects can be completed in groups (max 4 per group) but submission onto Webcourses is individual. Once again, don’t copy anybody’s work nor give your code to anybody unless you **seriously** worked together on the project.
2. Please Submit one .java file. It should look like this:

**public** **class** Project1 {

**public** **static** **void** main(String[] args){

//Test code goes here

}

}

//---------------------------

**class** Abc{

}

//---------------------------

**class** Xyz*{*

}

1. Apply the Java naming conventions. See ***JavaNamingConventions.pdf*** posted at the end of this document (also under ***Exam 1 Material*** module).
2. If you work with a classmate(s), your .java file must contain the following comment:

/\*

* Project 1
* Names (first and last names) of students who worked together on the project
* (optional) Add anything that you would like the TA to be aware of

\*/

Example:

/\*

* Project 1
* Hatim Boustique, Ericka Edwards and Jamal Dubois

\*/

**public** **class** Project1 {

**public** **static** **void** main(String[] args){

//Test code goes here

}

}

//---------------------------

**class** Abc{

}

//---------------------------

**class** Xyz*{*

}

**Project 1 statement**

This project involves implementing a simple university personnel management program. The program contains two different kinds of objects: students and faculty. For each object, the program stores relevant information such as university ID, name, etc. Different information is stored depending on the type of the object. For example, a student has a GPA, while a faculty has a title and department (professor, mathematics).  
  
For each of any class data member, your program must include the **getters** and the **setters**, and each class must include at least **two constructors**.

Student class has:

* Full name
* ID
* Gpa
* Number of credit hours currently taken

Faculty class has:

* Full name
* ID
* Department (mathematics, engineering, arts and science)
* Rank (professor, adjunct)

Students in this college pay $236.45 per credit hour in addition to a $52 administrative fee. Your code should generate a tuition invoice **( a method within the class Student**). Note that students get a 25% off total payment if their gpa is greater or equal to 3.85.

The class Faculty must have the method that prints the faculty information

Test your code with one faculty and two student objects. The sample run below should give you a clear idea about how your code should run. The user’s entry in marked in **bold** so you can tell what your code should display to the screen and what the user enters.

Please note well that:

1. Your code should run exactly as shown on the sample run below (However, the TA will not deduct points because you skipped two lines instead of three or your tuition invoice has 56 hyphens instead of 63! ).
2. When asked to enter the enter the faulty department, **matheMatics** and **MathematiCs** are considered to be the same, and your program should display ***mathematics*** if faculty information is to be displayed to the screen. However, if the user enters ***Mathematics department***, then this is an invalid entry.
3. The university ID has no required form so you may choose to enter anything to be the ID.

Welcome to my Personal Management Program

Choose one of the options:

1. Enter the information of the faculty
2. Enter the information of the two students
3. Print tuition invoice
4. Print faculty information
5. Exit Program

Enter your selection: **2**

Enter student 1 info:

Name of Student: **Julia Alvarez**

ID: **ju1254**

Gpa: **3.26**

Credit hours: **7**

Thanks!

Enter student 2 info:

Name of Student: **Matt Jones**

ID: **ma0258**

Gpa: **2.78**

Credit hours: **0**

Thanks!

1. Enter the information of the faculty
2. Enter the information of the two students
3. Print tuition invoice
4. Print faculty information
5. Exit Program

Enter your selection: **a**

Invalid entry- please try again

1. Enter the information of the faculty
2. Enter the information of the two students
3. Print tuition invoice
4. Print faculty information
5. Exit Program

Enter your selection: **1**

Enter faculty info:

Name of the faculty: **John Miller**

ID: **jo7894**

Rank: **Instructor**

Sorry entered rank (Instructor) is invalid

Rank: **Professor**

Department: **Engineering**

Thanks!

1. Enter the information of the faculty
2. Enter the information of the two students
3. Print tuition invoice
4. Print faculty information
5. Exit Program

Enter your selection: **3**

Here is the tuition invoice for Julia Alvarez :

---------------------------------------------------------------------------

Julia Alvarez ju1254

Credit Hours:7 ($236.45/credit hour)

Fees: $52

Total payment: $1,707.15 ($0 discount applied)

---------------------------------------------------------------------------

1. Enter the information of the faculty
2. Enter information of the two students
3. Print tuition invoice
4. Print faculty information
5. Exit Program

Enter your selection: **3**

Which student? 1 Julia Alvarez or 2 Matt Jones ? **2**

---------------------------------------------------------------------------

Matt Jones ma0258

Credit Hours:0 ($236.45/credit hour)

Fees: $52

Total payment: $52.00 ($0 discount applied)

---------------------------------------------------------------------------

1. Enter the information of the faculty
2. Enter information of the two students
3. Print tuition invoice
4. Print faculty information
5. Exit Program

Enter your selection: **2**

You already have two students filled in. Do you want to update their information?

Yes or No: **Yes**

Enter student 1 info:

Name of Student: **Erick Smart**

ID: **er1254**

Gpa: **4**

Credit hours: **3**

Thanks!

Enter student 2 info:

Name of Student: **Komal Shah**

ID: **ko0258**

Gpa: **3.1**

Credit hours: **3**

Thanks!

1. Enter the information of the faculty
2. Enter information of the two students
3. Print tuition invoice
4. Print faculty information
5. Exit Program

Enter your selection: **4**

---------------------------------------------------------------------------

John Miller

Engineering Department, Professor

---------------------------------------------------------------------------

1. Enter the information of the faculty
2. Enter information of the two students
3. Print tuition invoice
4. Print faculty information
5. Exit Program

Enter your selection: **5**

Goodbye!