Project 1 – Programming Fundamentals

# Objective

Re-familiarize yourself with the Java IDE (Integrated Development Environment) and the Java programming language including:

* If then else statements
* Select Statements
* Loops
* Data Input and Output
* Arrays

# Instructions

1. Read the Registration data from the provided file. A sample of the file is shown below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **First Name** | **Last Name** | **Class Level** | **Course** |
| 1 | Deborah | Simpson | Senior | COMP 182 |
| 1 | Deborah | Simpson | Senior | CIT 101 Lab |
| 2 | Alan | Palmer | Junior | COMP 182 Lab |
| 2 | Alan | Palmer | Junior | COMP 182 |
| 3 | James | Schmidt | Junior | CIT 101 |
| 3 | James | Schmidt | Junior | COMP 182 Lab |
| 4 | Jesse | Gardner | Senior | CIT 101 Lab |
| 4 | Jesse | Gardner | Senior | CIT 101 |
| 5 | Mary | Ross | Freshman | COMP 182 |
| 5 | Mary | Ross | Freshman | CIT 101 Lab |
| 6 | Brandon | Greene | Sophomore | COMP 182 Lab |
| 6 | Brandon | Greene | Sophomore | COMP 182 |
| 7 | Terry | Evans | Senior | CIT 101 |
| 7 | Terry | Evans | Senior | COMP 182 Lab |
| 8 | Janice | Robertson | Junior | CIT 101 Lab |
| 8 | Janice | Robertson | Junior | CIT 101 |
| 9 | Juan | Berry | Sophomore | COMP 182 |
| 9 | Juan | Berry | Sophomore | CIT 101 Lab |
| 10 | Anthony | Bennett | Senior | COMP 182 Lab |
| 10 | Anthony | Bennett | Senior | COMP 182 |

1. Calculate the following:

* Number of students
* Number of Seniors, Juniors, Sophomores and Freshman.
* Number of unique courses

*Extra Credit*

* Number of students desiring to enroll in each course

1. Identify and document the requirements
2. Write pseudo-code for this application
3. Create Test Cases that will demonstrate the requirements
4. Implement in Java.
5. Write a main program that demonstrates that the code meets the requirements.
6. Document your test results

# Submit

Submit the following:

## Week 1 Submission

* List of Requirements
* Pseudo-code for the application
* Test Cases to demonstrate requirements

## Final Submission

* Updated list of Requirements
* Updated pseudo-code for the application
* Updated Test Cases
* Text file(s) containing code
* Text file(s) containing the Test Results