CIS 3260 Group Project

Due date: December 12, 11:59 PM

**Project Overview**

Design a java application for keeping track of students and employees at GSU. You may complete this individually or in a group of no more than 3 people. Requirements do not change if you choose to complete the project either individually or as part of a group.

**Student-specific requirements**

* You can create a new student and assign him or her a student ID, name, GPA, and year of graduation
* You can modify a student’s GPA
* You can modify a student’s year of graduation
* Default values for GPA and year of graduation are 0.0 and 0001 respectively
* Students can join courses

**Employee-specific requirements**

* You can create a new employee and assign him or her an employee ID, name, job, and date of employment
* You can modify an employee’s job
* Default values for job and date of employment are “” and 01/01/0001
* If an employee is a teacher, then that employee can teach courses

**Program requirements**

Create sub-methods that can accomplish the following:

* Display a given student’s name, GPA, or year of graduation
* Display a given employee’s name, job, or date of employment
* Display the average GPA of students in a course
* Display the courses an instructor is teaching
* Display a list of students taking a particular course
* Display a list of instructors teaching a particular course

**Project Checklist**

Your submission should include the following:

1. Project .java files
2. Flowchart and UML Diagrams
3. Test cases

.**Java Files**

You should initialize your program with 10 student and 10 employee records. The specifics of these objects will be elaborated on in the “test cases” section below. Your program should be clearly labeled throughout with pseudo-code. Comments are not only a component of your grade, but will also give me a better understanding of your program if it crashes at any point.

**Flowchart and UML Diagrams**

Create 2 flowcharts of any 2 of the following 4 sub methods:

* Display the average GPA of students in a course
* Display the courses an instructor is teaching
* Display a list of students taking a particular course
* Display a list of instructors teaching a particular course

The UML diagram should represent the entire program and clearly indicate classes, class variables, and methods

Test Cases

Screenshots demonstrating the input and output of the different program requirements should be labeled and pasted into a word document. In order to test program requirements, create a list of students and a list of employees and present them as a table (Examples on table 1 and table 2). The students and employees you create need to meet the following requirements:

* At least 10 employees and 10 students
* At least 4 employees must be instructors
* At least 6 students must be in a course
* At least 2 students must be taking more than 1 course
* At least 2 instructors must be teaching more than 1 course
* At least 3 unique courses

Files should be uploaded to the “Group Project” Dropbox folder before the due date (December 12).

|  |  |  |  |
| --- | --- | --- | --- |
| Name | GPA | Year of graduation | Courses |
| Jane Axle | 3.6 | 2017 | CIS3260, CIS2010 |
| Rod Stars | 2.7 | 2018 | CIS2010 |
| Jake Ford | 3.2 | 2016 | CIS3260 |
| Mary Brown | 3.3 | 2019 | None |
| Paula Rice | 3.8 | 2017 | CIS2010 |
| Rick White | 3.6 | 2017 | IB3090 |
| Clarence Wood | 2.7 | 2018 | CIS2010, IB3090 |
| Alex Noon | 3.2 | 2016 | CIS3260 |
| Quincy Archer | 3.3 | 2019 | None |
| Catherine Harris | 3.8 | 2017 | CIS2010 |

**Table 1. Example Student Record Table**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Job | Date Of Employment | Courses Taught |
| Joe Bloom | Instructor | 01/02/1982 | CIS 2010, CIS 3260 |
| Sarah Wake | Accountant | 02/24/1990 | None |
| Robert Ford | Instructor | 01/23/1999 | CIS 3260 |
| William Jackson | Instructor | 12/12/2011 | CIS 2010 |
| Margret Thatcher | Provost | 02/24/2014 | None |
| Nicholas Werner | Instructor | 01/02/1982 | CIS 2010, CIS 3260, IB2090 |
| Sasha Blom | Groundskeeper | 02/24/1990 | None |
| Richard Silva | Instructor | 01/23/1999 | CIS 3260 |
| Elma Lupin | Accountant | 12/12/2011 | None |
| Carter Gunderson | Instructor | 02/24/2014 | None |

**Table 2. Example Teacher Record Table**

**Grading**

Java Program: 40%

Pseudocode: 10%

Testing completeness: 30%

Flowchart Diagrams: 10%

UML Diagram: 10%

**Checkpoint Dates**

These are suggested dates for completing portions of the project throughout the second half of the semester. **Nothing is due until December 12**. However, if you submit items to the DropBox during the checkpoints I will provide feedback to your team.

November 7: Team assignments

November 21: Requirements Questions

November 28: Flowchart and XML Diagrams

December 12: Program and Documentation

**Late Policy**

**No late work will be accepted**. **The submission window will close on December 12 11:59 PM.**