CANADIAN COLLEGE OF MODERN TECHNOLOGY

#1 Silicon Hill Mile 91

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Department: Computer Science

Level: Year One/First Semester

Module: Introductory To Computer Science

Assignment Type: Assignment One

Lecturer: Mr Aiah James

import java.util.Scanner;

public class Exams\_system {

    public static void main(String[] args) {

*// Declaring constant variables*

        final float A\_category = 5.0F;

        final float B\_category = 4.0F;

        final float C\_category = 3.0F;

        final float D\_category = 2.0F;

        final float F\_category = 1.0F;

*// Global variables to hold user student personal information*

        String student\_name = "";

        String id\_no = "";

        String department = "";

        String level = "";

        String semester = "";

*// Defining variables for module*

        byte number\_of\_modules = 0;

        float module\_grade\_point = 0.0F;

        float total\_module\_grade\_points = 0.0F;

        int module\_credit\_hours = 0;

        int total\_module\_credit\_hours = 0;

*// Grade\_point category*

        char grade\_point\_category = '-';

*// Defining a variable to hold the cumulative grade point for each student*

        float cumulative\_grade\_point = 0.0F;

*// Instantiating new scanner object*

        Scanner user\_input = new Scanner(System.in);

*// Defining a variable that either end or continue the loop*

        String end\_or\_continue\_loop = "";

*// Program Heading*

        System.out.println("\t\t\t\t\t\t EXAMS GRADING SYSTEM");

*// Defining a while Loop - To loop through the number of times the user to run the program*

        while(true) {

*// Student Details Heading*

            System.out.println("STUDENT PERSONAL DETAILS");

*// Declaring variables and setting them to their respective user\_input value*

            System.out.print("Enter student name: ");

            student\_name = user\_input.nextLine();

            System.out.print("Enter student ID number: ");

            id\_no = user\_input.nextLine();

            System.out.print("Enter student gender: ");

            String gender = user\_input.nextLine();

            System.out.print("Enter student faculty: ");

            String faculty = user\_input.nextLine();

            System.out.print("Enter student department: ");

            department = user\_input.nextLine();

            System.out.print("Enter student program: ");

            String program = user\_input.nextLine();

            System.out.print("Enter student level(Year): ");

            level = user\_input.nextLine();

            System.out.print("Enter student semester: ");

            semester = user\_input.nextLine();

*// Modules Heading*

            System.out.println("\nSTUDENT MODULES, GRADE\_POINTS AND THEIR CREDIT\_HOURS");

*// Defining a variable to hold the number of modules the user will input*

            System.out.print("Enter number of modules: ");

            number\_of\_modules = user\_input.nextByte();

*//Iteration through the number\_of\_modules input value*

            for(int iteration\_count = 0; iteration\_count < number\_of\_modules; iteration\_count++) {

                user\_input.nextLine();

*// Defining a variables to the user\_input for the module\_name, the module\_grade && the module\_credit\_hours*

                System.out.print("Enter student module\_name: ");

                String module\_name = user\_input.nextLine();

                System.out.print("Enter student module\_grade: ");

                int module\_grade = user\_input.nextByte();

                System.out.print("Enter module\_credit\_hours: ");

                module\_credit\_hours = user\_input.nextInt();

*// Give space*

                System.out.println();

*// Setting conditions - depending on the grade assign the most appropriate category*

                if(module\_grade >= 75)

                    module\_grade\_point = A\_category;

                else if(module\_grade >= 60)

                    module\_grade\_point = B\_category;

                else if(module\_grade >= 50)

                    module\_grade\_point = C\_category;

                else if(module\_grade >= 40)

                    module\_grade\_point = D\_category;

                else

                    module\_grade\_point = F\_category;

*// Adding each module\_grade\_point to the total\_module\_grade\_point variable*

                total\_module\_grade\_points += module\_grade\_point;

*// Adding each module\_credit\_hours to the total\_module\_credit\_hours*

                total\_module\_credit\_hours += module\_credit\_hours;

*// Calculating the cumulative\_grade\_point*

                cumulative\_grade\_point = (total\_module\_grade\_points \* module\_credit\_hours) / total\_module\_credit\_hours;

            }

*// Setting conditions to output the cumulative\_grade\_point ot its corresponding grade\_point\_category*

            if(cumulative\_grade\_point == 5.0)

                grade\_point\_category = 'A';

            else if(cumulative\_grade\_point >= 4.0)

                grade\_point\_category = 'B';

            else if(cumulative\_grade\_point >= 3.0)

                grade\_point\_category = 'C';

            else if(cumulative\_grade\_point >= 2.0)

                grade\_point\_category = 'D';

            else if(cumulative\_grade\_point >= 1.0)

                grade\_point\_category = 'F';

            else

                System.out.println("Out of range...");

*// Display final result for student*

            System.out.println();

            System.out.println("\t\t\t\t" + "Transcipt Owner: " + student\_name);

            System.out.println("\t\t\t\t-----------------------------------------");

            System.out.println("Year: " + level + " |" + " Semester: " + semester);

            System.out.println("-------------------------------------------------------------------------------------------------------------");

            System.out.println("Student\_name:\t" + student\_name + "\t\t\tSemester:\t" + semester

            + "\n" + "ID\_no:\t\t" + id\_no + "\t\t\t\tFaculty:\t" + faculty +

            "\n" + "Gender:\t\t" + gender + "\t\t\t\tDepartment:\t" + department

            + "\n" + "Level(Year):\t" + level + "\t\t\t\tProgram:\t" + program);

            System.out.println("-------------------------------------------------------------------------------------------------------------");

            System.out.println("Cumulative\_grade\_point:\t" + cumulative\_grade\_point + "\n"+ "Category: " + grade\_point\_category);

            System.out.println("-------------------------------------------------------------------------------------------------------------");

            System.out.println("\t\t\t\tType your choosen option");

            System.out.println("1. To continue the program: Type 'continue' \n" + "2. To end the program: Type 'quit'" );

            System.out.print("\nType(continue/quit): ");

            end\_or\_continue\_loop = user\_input.next();

            if(end\_or\_continue\_loop.equals("continue")) {

                user\_input.nextLine();

                System.out.println("---------------------------------------------------------------------------------------------");

                continue;

            }

            else if(end\_or\_continue\_loop.equals("quit")) {

                System.out.println("\nDone - Program Terminated!!!\n");

                break;

            }

            else {

                System.out.println("Sorry your choice is invalid, so try again");

*// System.out.print("\nType(continue/quit): ");*

*// end\_or\_continue\_loop = user\_input.next();*

            }

        }

        user\_input.close();

    }

}