



University of Venda
Creating Future Leaders

COM 1321 PROJECT

TOTAL MARKS 100

WORK IN YOUR DESIGNATED GROUPS

DUE DATE WILL BE ANNOUNCED

Create a simple "Grade Calculator" program. In this project, you are required to input scores for different subjects, and the program will calculate the final grade based on certain criteria. Here's an outline of the project with a breakdown of marks:

Project: Grade Calculator

Total Marks: 100

Requirements:

1. Data Types and Variables (10 marks):

- Define variables to store scores for different subjects (e.g., Math, Science, English).
- Ensure that variables are of appropriate data types (e.g., use **int** for scores).

2. Relational Operators and If-Else Statements (10 marks):

- Implement logic to check if the input scores are within a valid range (e.g., between 0 and 100).
- If a score is out of range, display an error message and ask the user to input it again.

3. Switch Statements (10 marks):

- Create a switch statement to determine the grade based on the final score.
- Assign grades like A, B, C, D, or F based on predefined score ranges.

4. For Loop (10 marks):

- Allow the user to input scores for a fixed number of subjects (e.g., 5 subjects) using a for loop.

5. While Loop (10 marks):

- Implement a while loop to continuously prompt the user for input until valid scores are provided for all subjects.

6. Do-While Loop (10 marks):

- Use a do-while loop to ask the user if they want to calculate grades for another student. Continue the loop until the user decides to exit.

7. Arrays (10 marks):

- Store the scores for each subject in an array.
- Calculate the average score for all subjects using an array.

8. Methods (20 marks):

- Create separate methods for inputting scores, calculating the average score, and determining the grade.
- Properly modularize your code.