

# Report Card Generator App

Hey! Welcome to your first assignment. Hope you have had a great learning experience so far with us and now are pretty confident and comfortable to write programs in C language.

This assignment is meant to test your programming concepts based on what you have learned in this module (Module 1). Don't worry! You don't have to build anything fancy, a simple and clean executable program will work and that is all we need you to do at this moment :)

## Problem Statement

Your task is to write a C program to generate the report card of a student based on his marks secured in the final examination.

## Desired Output

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Jawahar Navodaya Vidyalaya  
Annual Report Card

Name: Sriyank Siddhartha  
Standard: 10  
Section: A

Marks Secured out of 100  
Mathematics: 93  
English: 74  
Hindi: 85  
Science: 97  
Social Science: 81

Total marks secured: 430  
Grade: B

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## Approach

Using the following approach you need to **first write an algorithm** and define the required steps to create the app. For writing algorithms, you can use a sheet of paper or any text editing software such as Microsoft Word.

1. Write a code for user input (use appropriate data type as applicable)

- Student name
- Standard (Class)
- Section
- Marks secured in
  - Mathematics
  - English
  - Hindi
  - Science
  - Social Science

2. While taking user input, take care of clearing the input buffer stream after scanf() statements (as applicable) by using the following statement:

- **while ((getchar()) != '\n');**

3. Once you get the marks secured for all the subjects, calculate the total marks secured.

4. Now based on the total marks secured, you need to assign a grade to the student.

- Grade A
  - Total marks secured between 450-500
- Grade B
  - Total marks secured between 400-449
- Grade C
  - Total marks secured between 350-399
- Grade D
  - Total marks secured between 300-349
- Grade E
  - Total marks secured between 200-299
- Grade F
  - Total marks secured below 200 but greater than equal to 0

4. Follow good coding practices to make your code clean.

## Additional Tasks

- You may print a decorated welcome message.
- While accepting user input use user-friendly messages to improve user experience.
- You may use the **usleep()** function as per the need.
- If the total marks secured exceeds 500 or is found to be below 0, then your program should terminate and the report card should not be generated.

**Note:** You can Google how to terminate (exit) the C program.

## Hints

- To draw a dashed line use symbol hyphen (-) in the print statements.
- Use escape characters such as '\t', '\n' wherever needed.

## Submission

After completing the assignment, upload the **zip file** containing the algorithm and source code file from the progress report. If you have written algorithm on a paper then upload a photo of it or if you have written algorithm in an editor then upload the digital file itself.

## Solution

You can download the solution to the assignment from the progress report once you have uploaded the solution. You may compare your program with the provided solution and can execute the same in the Eclipse IDE.