**CASE STUDY**



**Student Report Card Generator in C++**

**FOR THE**

**BACHELOUR’S DEGREE IN COMPUTER APPLICATIONS**

**OF CHANDIGARH UNIVERSITY, GHARAUN, MOHALI**

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**ABSTRACT:**This mini project titled "Student Report Card Generator" is developed using C++.   
It allows teachers or administrators to generate a report card for students based on their marks in different subjects.   
The system takes input for student details such as name, roll number, and marks in various subjects.   
It then calculates the total marks, percentage, and assigns a grade automatically.   
This project demonstrates the use of object-oriented programming (OOP) concepts such as classes, objects, and functions in C++.

**CODE:**

#include <iostream>

#include <string>

using namespace std;

class Student {

string name;

int rollNo;

float marks[5];

float total;

float percentage;

char grade;

public:

// Constructor to pre-fill details

Student() {

name = "Rishika";

rollNo = 101;

marks[0] = 85;

marks[1] = 78;

marks[2] = 90;

marks[3] = 88;

marks[4] = 80;

calculate();

}

void calculate() {

total = 0;

for (int i = 0; i < 5; i++) {

total += marks[i];

}

percentage = total / 5;

assignGrade();

}

void assignGrade() {

if (percentage >= 90)

grade = 'A';

else if (percentage >= 75)

grade = 'B';

else if (percentage >= 60)

grade = 'C';

else if (percentage >= 45)

grade = 'D';

else

grade = 'F';

}

void displayReportCard() {

cout << "\n----- STUDENT REPORT CARD -----\n";

cout << "Name: " << name << "\n";

cout << "Roll Number: " << rollNo << "\n";

cout << "Marks in Subjects: ";

for (int i = 0; i < 5; i++) {

cout << marks[i] << " ";

}

cout << "\nTotal Marks: " << total;

cout << "\nPercentage: " << percentage << "%";

cout << "\nGrade: " << grade << "\n";

}

};

int main() {

Student s;

s.displayReportCard();

return 0;

**OUTPUT:**

