Class 12 Computer Science Project

# Project Title: Student Report Card Generator using CSV and Python

## 1. Aim:

To develop a menu-driven Python program that reads student data from a CSV file, calculates total marks, percentage, and grade, and generates a formatted report card.

## 2. Objectives:

- To practice file handling using CSV module.  
- To implement student record storage and retrieval.  
- To use conditional logic for grade calculation.  
- To display formatted report cards.  
- To export individual report cards to text files.

## 3. Tools Used:

• Python 3  
• CSV File Handling  
• IDLE / VS Code / PyCharm

## 4. Algorithm:

Step 1: Load student data from CSV file using csv.DictReader  
Step 2: For each student, compute total marks and percentage  
Step 3: Assign grade based on percentage  
Step 4: Display a formatted report card  
Step 5: Search and export report card by roll number  
Step 6: Loop the menu until user exits

## 5. Sample Output (Text Format):

----- Report Card -----  
Roll No : 101  
Name : Riya Sharma  
Class : XII-A  
Math : 88  
Physics : 92  
CS : 95  
Total : 275  
Percentage: 91.67%  
Grade : A  
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## 6. Conclusion:

This project helped in understanding how to use CSV file handling in Python effectively to manage student data and generate useful reports.