



University Of Malakand(UOM)

Department Of Artificial Intelligence

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1. Project Title : **Students Results Management System**

Course Name **Programming Fundamentals**

Semester: **1st Semester**

Department: **Artificial Intelligence**

Shift: **Evening shift.**

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3. Submitted by:

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4. Problem Statements:

In many schools, students' results are calculated and recorded manually. This process is time consuming and may cause errors in calculating total marks, percentage and pass/fail status. There is a need for a simple computer-based system that can store students' details, calculate results automatically, and allow easy searching of students' records.

5. Project Objectives:

Programing Fundamentals

* Three loops are used for input, menu, file reading

- * Two arrays use to store subjects and marks
- * Condition use 3-5 pass/fail check,menu validation,search
- * Function use three add students, search students, main program
- * build a structured solution based on algorithm.

6. Scope of work:

The final programs include:

- * Final program include is a menu-driven, file-based, structured solution
- * Handles multiple students
- * Calculates marks and pass/fail automatically
- * Stores data
- * Allows easy search by name

7. Proposed system design:

A. Algorithm (step-by step)

- * Add students records (name,roll number,marks in 6 subject)
- * Calculates percentage
- * Show pass/fail
- * Search for students by name or roll number
- * Store data in a file

B. Flowchart:

[Start]

|

v

[Display Menu]

|

v

[Input Choice]

|

v

[Decision]

/ | \

Choice 1 Choice 2 Choice 3

| | |

v v v

[Add Student] [Search Student] [Exit]

| |

v v

[Save to File] [Display Record or Not Found]

| |

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|

v

[Display Menu] (loop)

C. **Data structures to be implemented:**

* **Loops**

FOR Loops : input six subjects and marks

DO-WHILE Loops : Menu repeats until exit

WHILE Loops: Read file for searching students

*** Conditions**

- * Check pass/fail
- * Validate menu options
- * Check search results

*** functions:**

- * add and save students data
- * find and display student's data

8.Tecnologies/tools:

LanguageC++,Dev C++,VS Code

9. Conclusion:

* The school result managements system successfully provides a simple and efficient way to manage students' academic records. It allow the user to add student details, enter marks for six subjects, automatically calculate total marks, percentage and determines pass or fail based on cricteria.The system also enables searching students records by name and stores all data securely.

This projects demonstrates the practical use of structured programing concepts in C ++, including loops, arrays, condition,function and file handling.

Overall,the system reduces manual works , minimizes errors,saves time and serves as a reliable solution for managing school results in a digitals format