

# PRESENTATION

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# TOPIC

Result Management System (with Ranking & GPA)

- Enter marks of multiple students.
- Calculate GPA/percentage.
- Rank students based on marks.
- Search student records.
- Generate report card to file.

# PROBLEM DEFINITION

- Manual result compilation is slow and prone to calculation errors.
- Difficult to search and retrieve specific student records manually.
- Need for a centralized system to store marks and generate results instantly.
- Lack of automated ranking system in traditional methods.

# PROJECT SCOPE

- Takes marks of 5 subjects per student.
- Stores student details using nested structures.
- Calculates total marks, GPA, percentage, and rank.
- Allows searching by roll number.
- Generates a formatted RESULT.txt output file.

# SOLUTION APPROACH

- Nested structures used for efficient data grouping.
- Bubble sort algorithm applied to order students by marks.
- Ranking logic assigns same rank for equal marks.
- Formatted file output using fprintf().

# WORKING DEMONSTRATION

-  User enters name, roll number, and marks for 5 subjects.
-  Program calculates total marks, GPA and percentage automatically.
-  Students are sorted by total marks.
-  User can search student details using roll number.
-  Program generates RESULT.txt containing full report.

# KEY FEATURES

- Handles multiple students dynamically.
- Search function for quick record lookup.
- Automatic report generation to external file
- Easy to extend (grade system, GUI).

# OUTPUT FILE

- Displays Rank, Name, Roll Number.
- Shows marks of all 5 subjects clearly.
- Total Marks, GPA and Percentage included.
- Separation lines for readability.

# FUTURE SCOPE

- Provide grade system (A, B, C, etc.).
- Store data permanently using database.
- Generate PDF reports for students.
- Add graphical UI using C/Java/Python.

# CONCLUSION

- System automates result processing efficiently.
- Reduces manual workload and increases accuracy.
- Easily scalable for larger student groups.
- Useful for schools, colleges, and institutions.

# REFERENCES

-  Class Notes
-  Let Us C
-  Online Tutorials
-  UPES University course material and class notes

THANK you