

# Python Developer Task - Student Management System

## Project Overview

The Student Management System is a Python-based CLI application designed to manage student records. It allows users to add, edit, search, and delete student data using simple file handling techniques.

## Duration Taken

Planning & Design: 1 day

Coding & Testing: 2 days

Report Writing: 1 day

Total: ~4 days

## Outcome

The final system is a fully functional file-based student record manager that works on any machine with Python installed. It allows efficient record handling and teaches practical usage of file I/O in Python.

## Challenges Faced

- Ensuring no duplicate IDs while adding students.
- Implementing in-place editing without corrupting the file structure.
- Handling edge cases like empty files and invalid input formats.

## Conclusion

## **Python Developer Task - Student Management System**

This project successfully demonstrates fundamental Python skills including string manipulation, file handling, and control flow. It serves as a foundational model for more complex systems involving databases or GUIs.