Class 12 Computer Science Project

# Project Title: Time Table Tracker for Teachers

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## 1. About the Project

This project helps teachers and administrators manage weekly class timetables using a simple CSV file. It allows assigning subjects to time slots, avoids overlapping entries, and supports exporting the entire schedule to a cleanly formatted text file for easy printing. It demonstrates the power of file handling in scheduling systems.

## 2. Aim

To create a time table tracker that allows viewing, updating, and exporting subject schedules using Python and CSV file handling.

## 3. Objectives

- To read and display a structured timetable from a CSV file  
- To allow insertion of subjects into available slots only  
- To prevent schedule conflicts by checking slot availability  
- To export the complete timetable in readable text format

## 4. Tools Used

• Python 3  
• CSV File Handling  
• Lists and Indexing  
• String Formatting  
• Conditional Logic

## 5. Algorithm

Step 1: Load the timetable from CSV file into memory  
Step 2: Present options to view, assign, or export timetable  
Step 3: For assignment, check if the slot is empty before adding subject  
Step 4: Save any changes back to the CSV file  
Step 5: Allow export to a text file for printing  
Step 6: Repeat until the user exits

## 6. Sample Output (Text Format)

Monday | Math | English | --- | CS | ---  
Tuesday | --- | Science | English | --- | CS  
Wednesday | --- | --- | --- | --- | ---

## 7. Conclusion

This project proves how a real-world use case like timetable scheduling can be implemented using Python. It offers an intuitive and editable format with CSV and a backup/export feature for practical school usage.