Class 12 Computer Science Project

# Project Title: PTM (Parent-Teacher Meeting) Slot Booking System

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## 1. About the Project

This project provides a digital solution to manage Parent-Teacher Meeting (PTM) slots using Python and CSV file handling. It simulates a real-world scenario where parents can book available time slots for meetings. The project ensures no double bookings and generates confirmation receipts in text format. This helps students understand file operations, record updates, and interactive menus.

## 2. Aim

To create a slot booking system for PTMs using Python and CSV file handling.

## 3. Objectives

- To apply file handling with CSV format  
- To simulate slot-based appointment booking  
- To prevent double-booking by updating status  
- To generate confirmation receipts in text files  
- To build user-friendly, menu-driven applications

## 4. Tools Used

• Python 3  
• CSV module  
• Text File Handling  
• File Writing and Updating  
• Lists and Strings

## 5. Algorithm

Step 1: Load slot data from a CSV file  
Step 2: Show menu with options to book, view or exit  
Step 3: If booking, allow only available slots and update status  
Step 4: Save updated records to CSV file  
Step 5: Generate a confirmation file in text format  
Step 6: Repeat until the user exits

## 6. Sample Output (Text Format)

--- PTM Slot Booking System ---  
1. View Available Slots  
2. Book a Slot  
3. View All Bookings  
4. Exit  
  
Slot S2 booked successfully for Mrs. Sharma!  
Confirmation\_S2.txt generated.

## 7. Conclusion

This project demonstrated how simple Python programs using CSV and text file handling can be applied to real-life educational scenarios. It builds logic development skills and provides practical exposure to managing digital records.