**Project 1: SRM Hostel Management system**

**Project Details:**

Create a desktop application for the SRM hostel management system using a C++ programming language. **Make sure every component used in the project should be with respect to the SRM university.**

**Project Output :**

1. The hostel management system should manage all hostel activities such as admissions, fees, room assignments, mess allotment, and hostel stores, as well as provide relevant data for smooth transactions.

2. It’s also used to keep track of monthly mess bills, hostel staff salaries, and student certificates, among other things.

**Purpose of hostel management system:**

1. Keeping track of registration, fees, and mess payments manually requires paper.

2. Real-Time Data Management

3. Hostel Record – This component includes room details, block lists, mess reports, and joining reports to help the hostel warden manage daily tasks.

4. Room Allocation – This function creates a full report on hostel room availability, including the total number of rooms in each hostel, the number of students who need to be accommodated, and the name of the staff person responsible for the hostel’s facilities. Students can choose from a range of hostels with room details and semester costs.

5. Fee Collector – Online payments for hostel fees.

**Features required in the Hostel Management system**:

1. Login system

2. Enter, delete, and update student/staff data

3. Check details of existing data

4. Check for hostel vacancies

5. View all records of a particular hostel

**Project 2: SRM Library Management system**

**Project Details:**

This is an excellent idea to upgrade your skills in C++. All you require to do is build an application that will let students add and display books. Furthermore, it will help the students to change their books by implementing modifications to them or adding or deleting pages. Create an application that will be user-friendly and effortless to access and use. It also lets users check and issue their favorite books anytime, anywhere with one click. But you have to be very mindful of your graphics as it is the major part of your library management system application.

Create a desktop application for the SRM library management system using a C++ programming language. **Make sure every component used in the project should be with respect to the SRM university.**

**Project Output :**

1. The library management system should manage all the library activities such as availability of books subject wise, number of books, date of issue and renewal as well as provide relevant data for smooth transactions.

2. It’s also used to keep track of monthly book renewal, issue , and student penalties, among other things.

**Features required in the Library Management system**:

1. Login system

2. Enter, delete, and update student/staff data

3. Check details of existing data

4. Check for availability of books subject wise

5. View all the books and quantity

**Project 3: Tourism Management system**

**Project Details:**

A tourism company has multiple buses and they take tourists for tourism for different places. At the beginning of the year, the tour information (start date, starting location, and other relevant information) become available. A tourist can book, cancel, increase or decrease the number of accompanying persons, etc. Create a desktop application for the tourism management system using a C++ programming language.

**Project Components:**

1. Staff management (drivers)

2. Bus management.

3. Booking system management.

4. Any other relevant information

**Purpose of tourism management system:**

1. Keeping track of the buses which will go where keeping track of drivers who will drive which buses.

2. Tourist Data Management like where to go, money paid advanced,etc.

3. etc.

**Features required in the tourism management system**:

MInimally, the developed application will have following features:

1. Login system

2. Enter, delete, and update staff and tourist data

3. Reserving and updating seats

4. View all tourists for a particular place

5. Any other relevant things

Inclusion of relevant and important feature will carry more credit.

**Project 4: SRM Payroll Management System**

**Project Details:**

Basic operations users can perform via this program project that is based on file handling are adding new employee record, modifying, deleting a record, displaying employee’s record Using C++

**Features:**

Payroll Management System is a C++ project which can be used to perform various operations and store the Salary records of people that too without SQL(database) i.e. only using C++. A person can perform the following 6 main operations:

1. Addition of New Employee.

2. Modify Employee Record

3. Delete Employee Record

4. Print Employee Salary Slip

5. Display an Employee Record

6. Display List of Employees

**Project 5: SRM GYM Management System**

**Project Details:**

Develop a Gym Management System for SRM University. This software should handle the entire data of the Gym. It makes the work of a Fitness Manager very easy to keep track of each and every record. The gym management system is a simple console application with the system strictly protected by password information. In this project, the manager can do a lot of tasks in the system that can add a new member, member list, and remove permanent member details. The system has all the Member functions to list down the details of gym members. That can help you manage your business efficiency. Implement below features in C++ to make the GYM management tasks easy.

**Features**

* Create separate logins for the users, trainers and the gym managers i.e admin, in which the gym manager is password protected.
* Gym managers can add, update, delete and create gym memberships and can assign them to a particular user.
* The user can quit the gym anytime, whenever he or she wants.
* Provide an edit option for the users to edit their profiles.
* Only the admin can delete and edit the membership.
* During the purchase of membership, the trainer is allotted automatically.
* Issuing the timetable of the batch on system after user membership is created
  + (Note: (i) Equal load to all trainers
  + (ii) equal number of members in each batch and
  + (iii) Batch preferences should be taken from the users ).
* Easy payment options

**Modules**

* Login system
* Registration activities of the member
  + Join a Gym.
  + Quit Gym.
  + Edit User Profile.
  + Create Membership
  + Display All Records
  + Search Particular Record
  + Edit Membership Details
  + Delete Membership
* Issuing the timetable of batch on system
* Easy payment options

**Project 6: SRM Class Rooms and Labs management system (CRLMS).**

**Project Details:**

Develop a GUI-based SRM Class and Lab management system using C++. This software should maintain all class and lab details. It helps the academic planning group in assigning rooms and labs for a regular schedule. It should display the details of the class or lab going in that particular room based on the allotment. Also, it has to show vacant room numbers with their seating capacity for booking. Any faculty if they need a room at that particular time can book a room based on the class requirement. Lastly, lab assistants and faculty can add a note based on their findings in that room such as power issues, infrastructural issues, or equipment issues for resolution.

**Features required in the CRLMS:**

1. A different login and dashboards for users (i.e Faculty, Teaching Assistants) and Lab managing staff (i.e Lab Technician, Department HoD and CLM).
2. Display all available room information for users and managing staff in their respective dashboards.
3. Application users should have the ability to change their login passwords.
4. Make Department HoD and CLM admins and other users as staff. Admins can add or remove rooms into the database. Moreover, they can add or remove staff and faculty members at any time. Also, they can create another admin.
5. The system takes different section timetables and creates overall room schedules and displays the conflicts in the room allocation in the given timetables. Further suggests the changes in the timetable.
6. An hour to Hour displays the room details along with free room details for booking.
7. It provides a form to book rooms in advance.
8. It provides a form to upload timetables.
9. It provides a form to write comments about a particular room.
10. It provides a form to enter the details of faculty and staff using that room.

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## **Project 7: SRM Bus Reservation System**

**Project Details:**

Design and develop a Bus Reservation System for SRM University AP. In this project, various types of modules are available to manage customer, reservation, bus schedule, bus route and seat. Project should capable of generating reports on reservation, customer, bus route, seat etc. The minimum required features are listed below in the feature section.

**Modules:**

1. Customer: Manage all customer related information like create, delete, update etc.
2. Reservation: Operations related to ticket booking.
3. Bus schedule: To manage different bus schedules
4. Bus route: To manage different bus routs
5. Seat: To manage different bus operations

## **Features:**

1. Install Bus Information: This feature allows you to install a typical bus information before it can be reserved by the passengers or shown in buses available. It includes the bus no., driver’s name, arrival time, departure time and destination (from and to) of the bus.
2. Reservation: This feature is very simple; it includes the bus no., seat number and the passenger’s name. The seat number of the particular bus is reserved under the passenger’s name.
3. Show Reservation Information: With this feature, you can show all the information regarding the buses and their respective seats. It contains all the information stored by the previous two function of this project. It also enlists the no. of empty seats in a bus along with the seat number registered to a particular passenger.
4. Buses Available: This feature simply shows the buses available for reservation, and the information regarding the bus no. stored under the first feature.

**Project 8 : SRM Medical** **Store Management System**

**Project Details:**

The SRM Medical store system software is a medicine stock inventory system used in SRM medical stores that runs for the students and the faculties. This software stores the details of medicine purchase stock and the sell stock. The system should maintain purchase stock detail by company wise and sell stock detail by customer wise. Here the customer is the SRM students and faculties. This software should generate an automated bill for every selling and generate reports for stock, sell, and customer detail.

**Product Functions**:

**Feature 1: Medicine Stock Record Management System**

**This feature is responsible to:**

* Keep record of the medicine such as medicine name, medicine id, quantity of medicine, price of the medicine etc.
* Keep record of the expiry date of the medicines such as to remove those medicines from the stock whose expiry date is over.
* Manage the availability of the medicine in the store such as to order those stock of medicines which are over on time.
* Allow the user to arrange the medicine systematically according to their comfort.

**Feature 2 : Customer information and Billing System**

**This feature is responsible to:**

* Keep track of the customer information
* prepare the bill with their proper record.

**Feature 3: Sale and Supplier Management System**

**This feature is responsible to:**

* Keep in record the details of their supplier such as supplier name, id, quantity of stock of medicines supplied, bill of the stock supplied etc.
* Keep track of the profit and losses of the shop.
* Keep record of the sales of shop.
* Complete record of all the purchases is maintained.

**Project 9: SRM Student Report Management System**

**Project Details:**

Collect student details like name, roll number, marks in each subject(consider the subjects in semester III), and calculate their grade. Basic operations users can perform via this program project that is based on file handling are adding new student record, modifying student record, deleting student record and displaying student records using C++

**Features:**

Student report Management System is a C++ project which can be used to perform various operations and store the marks records of students without using SQL(database) i.e. only using C++. We can perform the following 6 main operations:

1. Addition of New student record.

2. Modify a student record

3. Delete a student record

4. Display a particular student record

5. Display all student records

6. Display toppers(Top 3)

**Project 10: SRM Student Admission Management System**

**Project Details:**

The admission management system will provide a seamless interaction among the students, guardians and university authorities. It facilitates the smooth onboarding of students.

**Functionalities**:

1. Student End:
   1. Entering details of academic qualifications
   2. Entering details of personal information
   3. Entering details of specific information related to a particular course
   4. Respond to the queries raised by university authorities
2. University End:
3. Verify student details
4. Putting comments to the students
5. Verify fee information
6. Ask for more information from student (if required)