SRM ClassRooms & Lab Management System

Project submitted to the

SRM University – AP, Andhra Pradesh

Submitted in partial fulfilment of the requirement for the award of the degree of

Bachelor of Technology

in

Computer Science and Engineering

School of Engineering and Sciences

SUBMITTED BY :-

GROUP : 6

Shaik Mohammed Fayaz	AP21110011426
P.Sandhya	AP21110011439
G K H Mohith	AP21110011453
Shaik Sameer	AP21110011466
C.Mahendra Teja	AP21110011479

UNDER THE GUIDANCE OF

Bhaskar Santhosh Egala

Department of Computer Science and Engineering SRM University, AP

Acknowledgement

The satisfaction that accompanies the successful completion of any task would be incomplete without introducing the people who made it possible and whose constant guidance and encouragement crowns all efforts with success.

I am extremely grateful and express my profound gratitude and indebtedness to my project guide, **Mr. Bhaskar Santhosh Egala.** Lecturer, Department of Computer Science & Engineering, SRM University, Andhra Pradesh, for her kind help and for giving me the necessary guidance and valuable suggestions in completing this project work.

ABSTRACT

SRM class room and lab management system is used to maintain all the class and labs details. It helps the academic planning group in assigning rooms and labs for the regular schedule. It will display the details of the class or lab going in that particular room based on the allotment. We use the C++ program for completion of the project.

This particular program is used to show the vacant room numbers with their seating capacity for booking and if any faculty needs a room at particular time can book a room based on the requirement of the class. This project makes easy to the lab assistants and faculty to add their note on the power issues infrastructural issues, or equipment issues for resolution.

CONTENTS

INTRODUCTION

The SRM rooms and lab management software runs for students, faculties and also for lab assistants. This program makes the admins to add, remove rooms in the database. This software generates an hour to hour displays the room details along with the free room details for booking. It stores all the data of the students, faculty, CLM, details.

It is useful to get the detailed room information for users and management staffs in their respective dashboards. The users have to be the SRM staff and students and the lab assistants.

FEATURES

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.

System Requirements

- **Software Requirements**:

  Language used: C++

  Operating System: Window or Mac

  1. Install any one type of IDE(Integrated Development Environment)for C++

  Text files. We used VS code platform to perform.

- **Hardware Requirements**:

  Hard Disk: 512 GB

  RAM: 16 GB

  Processor: Intel i5

Code:

```cpp
#include <bits/stdc++.h>
using namespace std;
int validate_email(string email) // ! status : checked
{
    if (email.length() > 13) // ! @srmap.edu.in - length is 13
    {
        int n = email.find('@');
        if (n != 0)
        {
            int uscore = 0;
            for (int i = 0; i < n; i++)
            {
                if (email[i] < 'a' || email[i] > 'z')
                {
                    if (email[i] == '_' && uscore != 1)
                        uscore += 1; // ! only one '_' is allowed
                    else
                        return 0;
                }
            }
            if (email.substr(n + 1) == "srmap.edu.in")
                return 1;
            return 0;
        }
        else
            return 0;
    }
    else
        return 0;
}
string is_there(string log, string user_name) // ! status : checked
{
    ifstream file(log);
    string x; // ! checking if user already exist or not
    while (file)
    {
        getline(file, x);
```

```
    {
        getline(file, x);
        if (x.substr(0, x.find(' ')) == user_name)
        {
            file.close();
            return x;
        }
    }
    file.close();
    return "0";
}
string user_login(int x = 1) // ! status = checked
{
    string user_name, password;
    string log;
    if (x == 1)
        log = "admin_password_log.txt";
    else
        log = "password_log.txt";
    do
    {
        int n;
        if (x == 1)
        {
            cout << "\t\t\t\t================================================================================" << endl;
            cout << "\t\t\t\t|                                                                              |" << endl;
            cout << "\t\t\t\t|   1.Register                                                                 |" << endl;
            cout << "\t\t\t\t|   2.Login                                                                    |" << endl;
            cout << "\t\t\t\t|   3.Reset your password                                                      |" << endl;
            cout << "\t\t\t\t|   4.Exit                                                                     |" << endl;
            cout << "\t\t\t\t|                                                                              |" << endl;
            cout << "\t\t\t\t================================================================================" << endl;
            cout << "\t\t\t\tEnter choice : ";
            cin >> n;
        }
        else
        {
```

```
        else
        {
            cout << "\t\t\t\t================================================================================" << endl;
            cout << "\t\t\t\t|                                                                              |" << endl;
            cout << "\t\t\t\t|   1.Login                                                                    |" << endl;
            cout << "\t\t\t\t|   2.Reset your password                                                      |" << endl;
            cout << "\t\t\t\t|   3.Exit                                                                     |" << endl;
            cout << "\t\t\t\t|                                                                              |" << endl;
            cout << "\t\t\t\t================================================================================" << endl;
            cout << "\t\t\t\tEnter choice : ";
            cin >> n;
            n++;
        }
        switch (n)
        {
        case 1:
        {
            fflush(stdin);
            cout << "\t\t\t\tEnter email id : ";
            getline(cin, user_name);
            if (validate_email(user_name))
            {
                if (is_there(log, user_name) == "0")
                {
                    string x;
                    do
                    {
                        cout << "\t\t\t\tEnter password ( min 8 characters ): ";
                        getline(cin, password);
                        if (password.length() >= 8)
                        {
                            cout << "\t\t\t\tConform your password : "; // ! reverifying password
                            getline(cin, x);
                            if (x != password)
                                cout << "\t\t\t\t\t\t- password not matched re enter again -\n";
                            else
                                break;
```

```
                        cout << "\t\t\t\t\t\t!!!!! ~ password length must be minimum 8" << endl;

                    } while (1);
                    cout << "\n\t\t\t\t\t\t --- you are successfully registered ---\n\n";
                    ofstream file(log, ios::app);
                    file << user_name + " " + password << endl; // ! adding new user into log
                    file.close();
                }
                else
                    cout << "\t\t\t\t\t\tUser already exist......!/#$%^*()" << endl;
            }
            else
                cout << "\t\t\t\t\t\tInvalid username......!/#$%^*()\n";

            break;
        }
        case 2:
        {
            ifstream file(log);
            fflush(stdin);
            cout << "\t\t\t\tEnter email id : ";
            getline(cin, user_name);
            cout << "\t\t\t\tEnter password : ";
            getline(cin, password);
            if (validate_email(user_name))
            {
                string x = is_there(log, user_name);
                if (x != "0")
                {
                    x = x.substr(x.find(' ') + 1);
                    if (x == password)
                        return user_name;
                    else
                        cout << "\t\t\t\t\t\tIncorrect password......!/#$%^*()" << endl;
                }
                else
                    cout << "\t\t\t\tuser does not exist......!/#$%^*()" << endl;
```

```
            }
            else
                cout << "\t\t\t\tInvalid username and password......!/#$%^*()\n";
            break;
        }
        case 3:
        {
            ifstream file(log);
            ofstream t("temp.txt", ios::app);
            fflush(stdin);
            cout << "\t\t\t\tEnter user_name : ";
            getline(cin, user_name);
            if (validate_email(user_name))
            {
                int p = 0;
                while (file)
                {
                    string pass, user;
                    getline(file, user);
                    pass = user.substr(user.find(" ") + 1);
                    if (user == user_name)
                    {
                        p = 1;
                        do
                        {
                            cout << "\t\t\t\tEnter password : ";
                            getline(cin, password);
                            cout << "\t\t\t\tConform your password : ";
                            getline(cin, pass);
                            if (pass != password)
                                cout << "\t\t\t\t- password not matched re enter again -\n";
                            else
                            {
                                p = 2;
                                cout << "\t\t\t\tpassword updated\n";
                                break;
                            }
```

```
                        }
                    } while (1);
                }
                t << (user + " " + pass) << endl;
            }
            file.close();
            t.close();
            if (p == 0)
            {
                cout << "\t\t\t\tInvalid username\n"
                     << "\t\t\t\tUser is un registered\n";
                remove("temp.txt");
            }
            else
            {
                if (x == 2)
                {
                    remove("password_log.txt");
                    rename("temp.txt", "password_log.txt");
                }
                else
                {
                    remove("admin_password_log.txt");
                    rename("temp.txt", "admin_password_log.txt");
                }
            }
        }
        else
            cout << "\t\t\t\tInvalid Email";
        break;
    }
    case 4:
        return "-";
    }
} while (1);
}
class time_slot // ! status = checked
```

```
219  class time_slot // ! status = checked
220  {
221      string name, sub, sec;
222
223  public:
224      int vacant;
225      time_slot()
226      {
227          vacant = 1;
228      }
229      void book_slot(string x, int s, int e, string str)
230      {
231          name = x;
232          cout << "\t\t\t\tEnter subject name : ";
233          fflush(stdin);
234          getline(cin, sub);
235          fflush(stdin);
236          cout << "\t\t\t\tEnter section : ";
237          getline(cin, sec);
238          ifstream check(sec + ".txt");
239          if (check)
240          {
241              while (!check.eof())
242              {
243                  string temp;
244                  getline(check, temp);
245                  temp = temp.substr(0, temp.find(' '));
246                  if (temp == to_string(s) + "-" + to_string(e))
247                  {
248                      cout << "\t\t\t\t\tThis section is already having a class in same slot" << endl;
249                      check.close();
250                      return;
251                  }
252              }
253          }
254          check.close();
255          name += ".txt";
```

```
255          name += ".txt";
256          ofstream file(name, ios::app);
257          ofstream m(sec + ".txt", ios::app);
258          file << to_string(s) + "-" + to_string(e) + " " + sub + " " + sec + " " + str << endl;
259          m << to_string(s) + "-" + to_string(e) << " " << str << " " << name.substr(0, name.find('.')) << " " << sub << endl;
260          file.close();
261          m.close();
262          vacant = 0;
263          cout << "\t\t\t\t\t\t------------Slot booked-----------" << endl;
264      }
265  };
266  class class_room
267  {
268      int available;
269
270  public:
271      time_slot t[8];
272      class_room()
273      {
274          available = 1;
275      }
276      int found(string name, string s)
277      {
278          ifstream file(name + ".txt");
279          string a;
280          while (file)
281          {
282              getline(file, a);
283              if (a.substr(0, a.find(' ')) == s)
284                  return 1;
285          }
286          file.close();
287          return 0;
288      }
289      void book(string str)
290      {
291          if (available)
```

```
            string name, sub, sec;
            int s, e;
            cout << "\t\t\t\tEnter start time : ";
            cin >> s;
            cout << "\t\t\t\tEnd time : ";
            cin >> e;
            if (s >= 1 && s <= 5)
                s += 12;
            if (e >= 1 && e <= 5)
                e += 12;
            if ((s >= 9 && s <= 17) && (e >= 9 && e <= 17) && (e - s) == 1)
            {
                int i = s % 9;
                if (s > 12 && s <= 17)
                    s -= 12;
                if (e > 12 && e <= 17)
                    e -= 12;

                if (t[i].vacant)
                {
                up:
                    fflush(stdin);
                    cout << "\t\t\t\tEnter lecturers name : ";
                    getline(cin, name);
                    if (is_there("password_log.txt", name + "@srmap.edu.in") != "0")
                    {
                        if (found(name, to_string(s) + "-" + to_string(e)))
                        {
                            cout << "\t\t\t\t oops!! '" + name + "' " + " has another lecture in the same slot\n";
                            goto up;
                        }
                        else

                            t[i].book_slot(name, s, e, str);
                    }
                    else
                    {
```

```
                    else
                    {
                        cout << "\t\t\t\tLecturer not found\n";
                        cout << "\t\t\t\tDo you want to add this lecturer\n\t\t\t\tEnter '1' ~ else '0' : ";
                        int n;
                        cin >> n;
                        if (n)
                        {
                            ofstream file("password_log.txt", ios::app);
                            file << name + "@srmap.edu.in"
                                 << " " << name << endl;
                            file.close();
                            t[i].book_slot(name, s, e, str);
                        }
                        else
                        {
                            cout << "\n\t\t\t\tEnter again\n"
                                 << endl;
                            goto up;
                        }
                    }
                }
                else
                    cout << "\t\t\t\t\t\tTime slot is already booked" << endl;
            }
            else
                cout << "\t\t\t\t\t\t Inavlid time slot" << endl; // !Only 1hr duration class can be added
        }
        else
            cout << "\t\t\t\t\t\tRoom un available";
    }
    int check_availability(int s)
    {
        if (t[s % 9].vacant)
            return 1;
        return 0;
    }
```

```
364         }
365     };
366     class_room room[50];
367     int slot_display(string x, int p)
368     {
369         string y;
370         int count = 0;
371         ifstream file(x + ".txt");
372         if (file)
373         {
374             while (!file.eof())
375             {
376                 getline(file, y);
377                 if (y.length() != 0)
378                 {
379                     count++;
380                     if (p)
381                         cout << count << endl;
382                     cout << "\t\t\t\tTime slot : " << y.substr(0, y.find(' ')) << endl;
383                     y = y.substr(y.find(' ') + 1);
384                     cout << "\t\t\t\tSubject : " << y.substr(0, y.find(' ')) << endl;
385                     y = y.substr(y.find(' ') + 1);
386                     cout << "\t\t\t\tSection : " << y.substr(0, y.find(' ')) << endl;
387                     y = y.substr(y.find(' ') + 1);
388                     cout << "\t\t\t\troom no : " << y.substr(0, y.find(' ')) << endl;
389                     if (p == 2)
390                     {
391                         y = y.substr(y.find(' ') + 1);
392                         cout << "\t\t\t\tRemarks : " << y << endl;
393                     }
394                     cout << "\t\t\t\t------------------------------------------------------------" << endl;
395                 }
396             }
397             return count;
398         }
399         else
400             cout << "\t\t\t\tNo classes found" << endl;
```

```
403 void Admin_login()
404 {
405     string x = user_login();
406     if (x != "-")
407     {
408         int n;
409         do
410         {
411             cout << "\t\t\t\t ============================================================
412             cout << "\t\t\t\t|
413             cout << "\t\t\t\t|   1 . Assign a class
414             cout << "\t\t\t\t|   2 . Add a lecturer
415             cout << "\t\t\t\t|   3 . Check remarks
416             cout << "\t\t\t\t|   4 . Check available room
417             cout << "\t\t\t\t|   5 . Get section wise time table
418             cout << "\t\t\t\t|   6 . Logout
419             cout << "\t\t\t\t|
420             cout << "\t\t\t\t ============================================================
421             cout << "\n\t\t\t\tEnter choise : ";
422             cin >> n;
423             switch (n)
424             {
425             case 1:
426             {
427                 int x, y, z;
428                 do
429                 {
430                     cout << "\t\t\t\tEnter room number : ";
431                     cin >> n;
432                     if ((n > 100 && n <= 110) || (n > 200 && n <= 210) || (n > 300 && n
433                     {
434                         x = n % 10;
435                         y = n / 100;
436                         z = (n / 10) % 10;
437                         if (z == 1)
438                             x = 10;
439                         y = (y - 1) * 10 + (x - 1);
440                         y = (y - 1) * 10 + (x - 1);
441                         break;
442                     }
443                     else
444                         cout << "\t\t\t\t\t\t\t---Invalid room number---" << endl;
445                 } while (1);
446                 room[y].book(to_string(n));
447                 break;
448             }
449             case 2:
450             {
451                 string name;
452                 cout << "\t\t\t\tEnter lecuter name : ";
453                 fflush(stdin);
454                 getline(cin, name);
455                 if (is_there("password_log.txt", name + "@srmap.edu.in") == "0")
456                 {
457                     ofstream file("password_log.txt", ios::app);
458                     file << name + "@srmap.edu.in" + " " + name << endl;
459                     file.close();
460                 }
461                 else
462                     cout << "\t\t\t\t\t\t\t-----Lecturer already exists----" << endl;
463                 break;
464             }
465             case 3:
466             {
467                 slot_display("note_log", 2);
468                 break;
469             }
470             case 4:
471             {
472                 int s, e;
473                 cout << "\t\t\t\tEnter start time : ";
474                 cin >> s;
475                 cout << "\t\t\t\tEnter end time : ";
                    cin >> e;
```

```
            cin >> e;
            for (int i = 0; i < 50; i++)
            {
                if (room[i].check_availability(s))
                {
                    int x = i / 10, y = i % 10;
                    if (y == 9)
                        cout << "\t\t\t\t" << (x + 1) * 100 + 10 << endl;
                    else
                        cout << "\t\t\t\t" << (x + 1) * 100 + (y + 1) << endl;
                }
            }
            break;
        }
        case 5:
        {
            string x;
            cout << "\t\t\t\tEnter section name : ";
            fflush(stdin);
            getline(cin, x);
            ifstream op(x + ".txt");
            if (op)
            {
                while (!op.eof())
                {
                    getline(op, x);
                    if (x.length() != 0)
                    {
                        cout << "\t\t\t\tTime : " << x.substr(0, x.find(" ")) << end
                        x = x.substr(x.find(" ") + 1);
                        cout << "\t\t\t\tRoom no : " << x.substr(0, x.find(" ")) <<
                        x = x.substr(x.find(" ") + 1);
                        cout << "\t\t\t\tLecturer name : " << x.substr(0, x.find(" "
                        x = x.substr(x.find(" ") + 1);
                        cout << "\t\t\t\tSubject : " << x << endl;
                        cout << "\t\t\t\t----------------------------------------
                    }
```

```
                    }
                    op.close();
                }
                else
                    cout << "\t\t\t\tSection not found" << endl;
                break;
            }
            case 6:
                return;
            default:
                break;
            }
        } while (1);
    }
}
void Lecturer_login()
{
    string x = user_login(2);
    x = x.substr(0, x.find('@'));
    if (x != "-")
    {
        int n;
        do
        {
            cout << "\t\t\t\t ==========================================
            cout << "\t\t\t\t|
            cout << "\t\t\t\t|   1 . Check Shedule
            cout << "\t\t\t\t|   2 . Write a comment on a class
            cout << "\t\t\t\t|   3 . Logout
            cout << "\t\t\t\t|
            cout << "\t\t\t\t ==========================================
            cout << "\n\t\t\t\tEnter choise : ";
            cin >> n;
            switch (n)
            {
            case 1:
```

```
        case 1:
        {
            int c = slot_display(x, 0);
            cout << "\t\t\t\tToday lectures : " << c << endl;
            break;
        }
        case 2:
        {
            string str;
            int c = slot_display(x, 1), i = 0;
            if (c)
            {
                cout << "Select a class : ";
                cin >> n;
                ifstream file(x + ".txt");
                while (i < n)
                {
                    getline(file, str);
                    i++;
                }
                file.close();
                ofstream log("note_log.txt", ios::app);
                log << str << " ";
                fflush(stdin);
                cout << "Enter comment : ";
                getline(cin, str);
                log << str << endl;
                log.close();
                cout << " Note added" << endl;
            }
        }
        break;
        case 3:
            cout << "\t\t\t\t\t\t\t\tSuccesfully logged out" << endl;
            return;
        default:
            break;
```

```
                break;
            }
        } while (1);
    }
}
int main()
{
    int n;
    do
    {
        cout << "\t\t\t\t==========================================================
        cout << "\t\t\t\t|          - WELCOME TO SRM CLASSROOM MANAGEMENT SYSTEM -
        cout << "\t\t\t\t|
        cout << "\t\t\t\t|   1 . Admin login
        cout << "\t\t\t\t|   2 . Lecturer login
        cout << "\t\t\t\t|   3 . Exit
        cout << "\t\t\t\t|
        cout << "\t\t\t\t==========================================================
        cout << "\n\t\t\t\tEnter choise : ";
        cin >> n;
        switch (n)
        {
        case 1:
            Admin_login();
            break;
        case 2:
            Lecturer_login();
            break;
        case 3:
            cout << "\t\t\t\tThank_you";
            return 0;
        default:
            cout << "\t\t\t\tEnter dispalyed choices only\n";
        }
    } while (1);
    return 0;
}
```

Result(Output):

```
================================================================================
|          - WELCOME TO SRM CLASSROOM MANAGEMENT SYSTEM -                      |
|                                                                              |
|    1 . Admin login                                                           |
|    2 . Lecturer login                                                        |
|    3 . Exit                                                                  |
|                                                                              |
================================================================================

Enter choice : 1
================================================================================
|                                                                              |
|    1.Register                                                                |
|    2.Login                                                                   |
|    3.Reset your password                                                     |
|    4.Exit                                                                    |
|                                                                              |
================================================================================
Enter choice : 1
Enter email id : mohith_g@srmap.edu.in
                 User already exist......!/#$%^*()
================================================================================
|                                                                              |
|    1.Register                                                                |
|    2.Login                                                                   |
|    3.Reset your password                                                     |
|    4.Exit                                                                    |
|                                                                              |
================================================================================
Enter choice : 2
Enter email id : mohith_g@srmap.edu.in
Enter password : mohith@123
                 Incorrect password......!/#$%^*()
================================================================================
|                                                                              |
|    1.Register                                                                |
|    2.Login                                                                   |
|    3.Reset your password                                                     |
|    4.Exit                                                                    |
|                                                                              |
```

```
|                                                                              |
================================================================================
Enter choice : 1
Enter email id : sir_g@srmap.edu.in
Enter password ( min 8 characters ): sir@123
               !!!!! ~ password length must be minimum 8
Enter password ( min 8 characters ): sir@12345
Conform your password : sir@12345

                --- you are successfully registered ---

================================================================================
|                                                                              |
|   1.Register                                                                 |
|   2.Login                                                                    |
|   3.Reset your password                                                      |
|   4.Exit                                                                     |
|                                                                              |
================================================================================
Enter choice : 2
Enter email id : sir_g@srmap.edu.in
Enter password : sir@12345
 ============================================================================
|                                                                            |
|   1 . Assign a class                                                       |
|   2 . Add a lecturer                                                       |
|   3 . Check remarks                                                        |
|   4 . Check available room                                                 |
|   5 . Get section wise time table                                          |
|   6 . Logout                                                               |
|                                                                            |
 ============================================================================

Enter choise : 1
Enter room number : 407
Enter start time : 9
End time : 10
Enter lecturers name : bhaskar
Lecturer not found
Do you want to add this lecturer
```

```
Enter choise : 1
Enter room number : 407
Enter start time : 9
End time : 10
Enter lecturers name : bhaskar
Lecturer not found
Do you want to add this lecturer
Enter '1' ~ else '0' : 1
Enter subject name : cse
Enter section : usec
                ------------Slot booked------------
 ==========================================================================
|                                                                          |
|   1 . Assign a class                                                     |
|   2 . Add a lecturer                                                     |
|   3 . Check remarks                                                      |
|   4 . Check available room                                               |
|   5 . Get section wise time table                                        |
|   6 . Logout                                                             |
|                                                                          |
 ==========================================================================
```

```
 ==========================================================================
|                                                                          |
|   1 . Assign a class                                                     |
|   2 . Add a lecturer                                                     |
|   3 . Check remarks                                                      |
|   4 . Check available room                                               |
|   5 . Get section wise time table                                        |
|   6 . Logout                                                             |
|                                                                          |
 ==========================================================================

Enter choise : 6
==========================================================================
|          - WELCOME TO SRM CLASSROOM MANAGEMENT SYSTEM -                  |
|                                                                          |
|   1 . Admin login                                                        |
|   2 . Lecturer login                                                     |
|   3 . Exit                                                               |
|                                                                          |
==========================================================================

Enter choice :
```

```
 ==========================================================================

Enter choise : 4
Enter start time : 9
Enter end time : 10
101
102
103
104
105
106
107
108
109
110
201
202
203
204
205
206
207
208
209
210
301
302
303
304
305
306
307
308
309
310
401
402
403
404
405
```

```
501
502
503
504
505
506
507
508
509
510
 ========================================================================
|                                                                        |
|   1 . Assign a class                                                   |
|   2 . Add a lecturer                                                   |
|   3 . Check remarks                                                    |
|   4 . Check available room                                             |
|   5 . Get section wise time table                                      |
|   6 . Logout                                                           |
|                                                                        |
 ========================================================================

Enter choise : 5
Enter section name : usec
Time : 9-10
Room no : 407
Lecturer name : bhaskar
Subject : cse
------------------------------------------------------------------------
 ========================================================================
|                                                                        |
|   1 . Assign a class                                                   |
|   2 . Add a lecturer                                                   |
|   3 . Check remarks                                                    |
|   4 . Check available room                                             |
|   5 . Get section wise time table                                      |
|   6 . Logout                                                           |
|                                                                        |
 ========================================================================
```

Conclusion:

From this project we learned many concepts in oops.

We used file handling in the implementation of this project.

We altogether worked implemented the program for SRM classrooms and labs management system.

GITHUB PROFILE LINKS :

AP21110011426 - https://github.com/FayazMohammad1

AP21110011439 - https://github.com/sandhyasree12

AP21110011453 - https://github.com/mohith0407

AP21110011466 - https://github.com/shaik1502

AP21110011479 - https://github.com/Mahendrateja2002