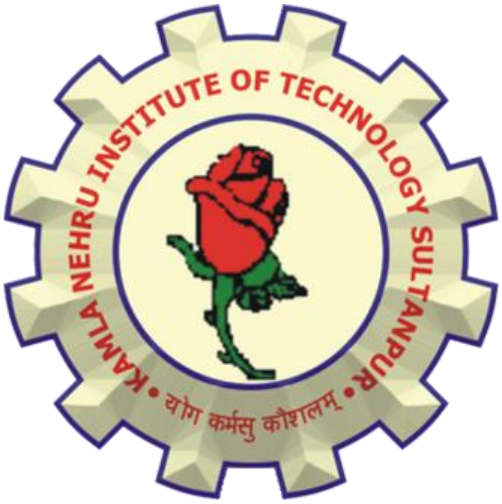
Kamla Nehru Institute of Technology

Masters of Computer Applications



Session 2018-2019

Project Report

On

Timetable Management System

Submitted By:

Ankush Kumar (17713)

Anupam Kaushal (17714)

Aradhana Mishra (17715)

Arsh Rajput (17716)

Under Supervision of:

Mr. Raushan Singh

Kamla Nehru Institute of Technology

Masters of Computer Applications

Session 2018-2019

Certificate

Certified that this is a bona-fide record of the project entitled "**Timetable Management System**" completed successfully by **Ankush Kumar (17713), Anupam Kaushal (17714), Aradhana Mishra (17715), Arsh Rajput (17716)** of the 4th semester, Masters of Computer Application, under the guidance of respected **Mr. Raushan Singh** during the academic year 2018-19.

Verified by Guide:
……

Mr. Raushan Singh
Master of Computer Application

ACKNOWLEDGEMENT

We are deeply indebted to our respected Head of the Department **Dr. Neelendra Baadal** for guiding us. The team is also grateful to our project guide **Mr. Raushan Singh** for his indomitable contribution and guidance without which the completion of this project would have been impossible.
Our sincerest thanks to all our seniors and colleagues whose help and guidance brought this project to successful completion.

Submitted By:

Ankush Kumar (17713)

Anupam Kaushal (17714)

Aradhana Mishra (17715)

Arsh Rajput (17716)

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1. Introduction

1.1 Purpose

The main objective of the Timetable Management System is to manage the details of Timetable, Faculty, Subject, Student, and Course. It manages all the information about Timetable, Semester, Course, and Timetable. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the Timetable, Faculty, Semester, and Subject. It tracks all the details about the Subject, Student, and Course.

1.2 Scope

It may help collection perfect management in detail.in a very short time the collection will be obvious simple and sensible it will help a person to know the management of passed year perfectly and vividly it also helps in current all work relative to timetable management system. It will also reduce cost of collecting the management and collection procedure will of on smoothly

- The system Automates the checking process of faculty allotments
- Further it will be enhanced with providing more features in it
- The project can scale to large size for big institutes as well
- It can also be created for the business purpose

1.3 Definition, Acronyms & Abbreviations

- HTML: Hypertext mark-up language
- JS: JavaScript
- CSS: Cascading Stylesheets
- AJAX: Asynchronous JavaScript and XML
- PHP: Personal Homepage
- HTTP: Hypertext Transfer Protocol

1.4 Technology Used

We have developed this project using the below technology

HTML: Page layout has been designed in HTML
CSS: CSS has been used for all the designing part
JavaScript: All the validation task and animations has been developed by JavaScript
PHP: All the business and frontend logic has been implemented in PHP
MySQL: MySQL database has been used as database for the project

2. Overall Description

2.1 Project Perspective

The main objective of the project Timetable Management system is to manage student subject detail that assigned faculty all faculty in the system and their assignment to the class all the info about their timeslots available and to whom they are busy. It helps in displaying timetable of student as well as faculty. A Student panel helps in viewing all the subject faculty and timetable.

A HOD faculty has most of control like adding new subject, faculty, assign subject, remove subject, remove assignment, edit timetable , unallocated faculty delete them from the system as well and many more other functionality provided to HOD making him superior against all

The data flows into the server which is then stored in the database system of the user device which can then be obtained later. Another objective of this web based application is to provide authorized and authenticated access to all the users so as to provide restricted access and to restricted user and to store the data efficiently. It also helps the user to store and and maintain the data.

2.2 Project Features

Manage Subject

- Adding New Subject
- Edit the Exiting Subject
- View details of the Subject
- Listing of all Subject
- Delete the subject

Manage Timetable

- Adding New Timetable
- Edit the Exiting Timetable
- View details of the Timetable
- Listing of all Timetable

Manage Faculty

- Adding New Faculty
- Edit the Exiting Faculty
- View details of the Faculty
- Listing of all Faculty
- View faculty subjects
- Assign subject to faculty
- Unassigned subject of faculty

2.3 Operating Environment

We can configure this project on following operating system.

Windows: This project can easily be configured on windows operating system. For running this project on Windows system, you will have to install WAMP or XAMP on your system.
Linux: We can run this project also on all versions of Linux operating system
Mac: We can also easily configured this project on Mac operating system.

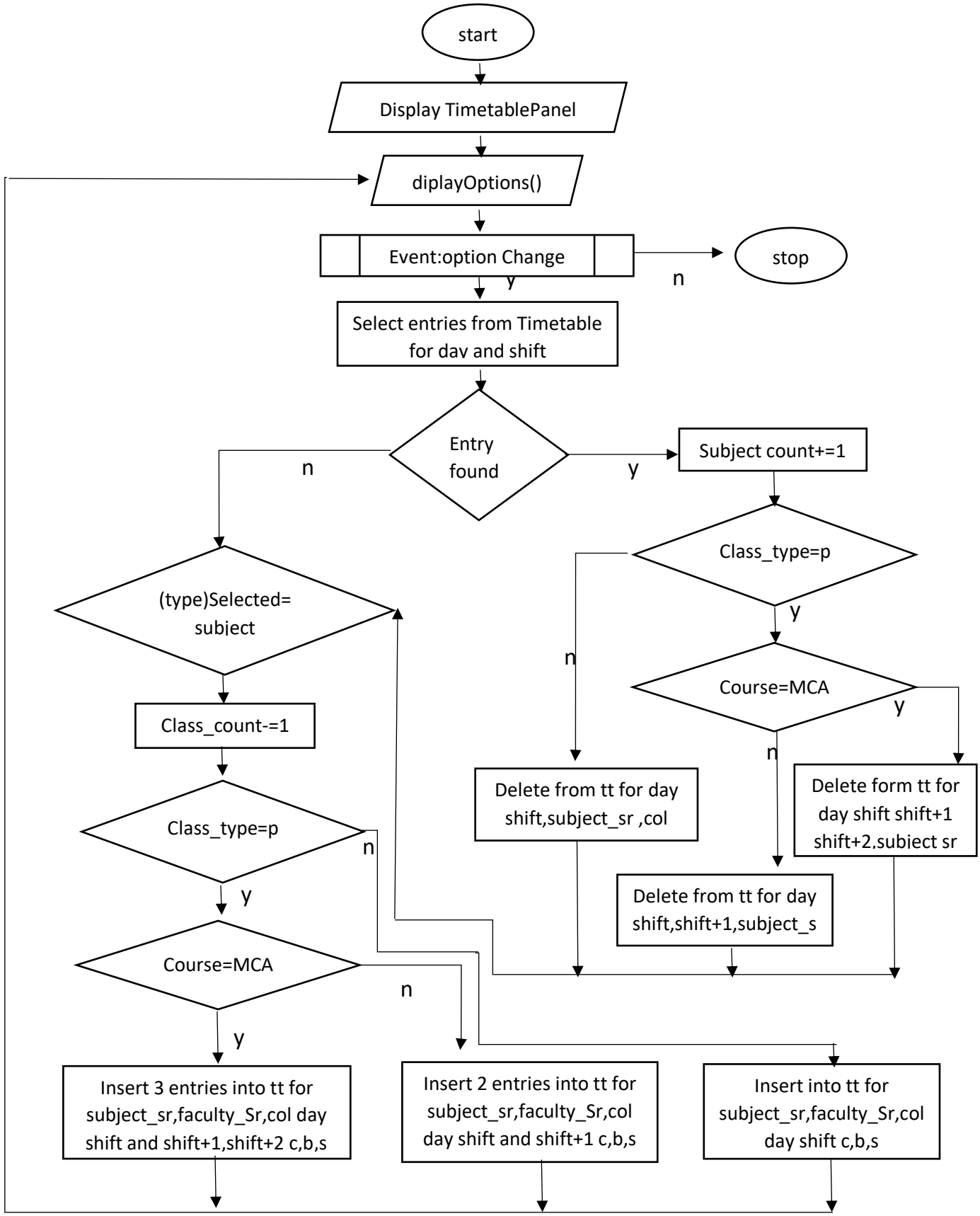
2.4 Advantages

- It helps in storing all the information at one place
- Does not require any kind of paperwork to store the data.
- It provides access to only authorized users.
- It helps the HOD to store the data efficiently.
- It helps the students to look up for all their data at a single place.
- It manages all the relate information automatically.
- It can run on any system with only basic necessities.
- It helps in cutting on a bit of the need of paper.
- It helps in organization, management and retrieval of the data smoothly and efficiently.
- It also helps in creating a helping environment for the teachers.
- It considers all the aspects of security and scrutiny and applies them.
- It prevent collision of faculty timeslots while creating a new timetable

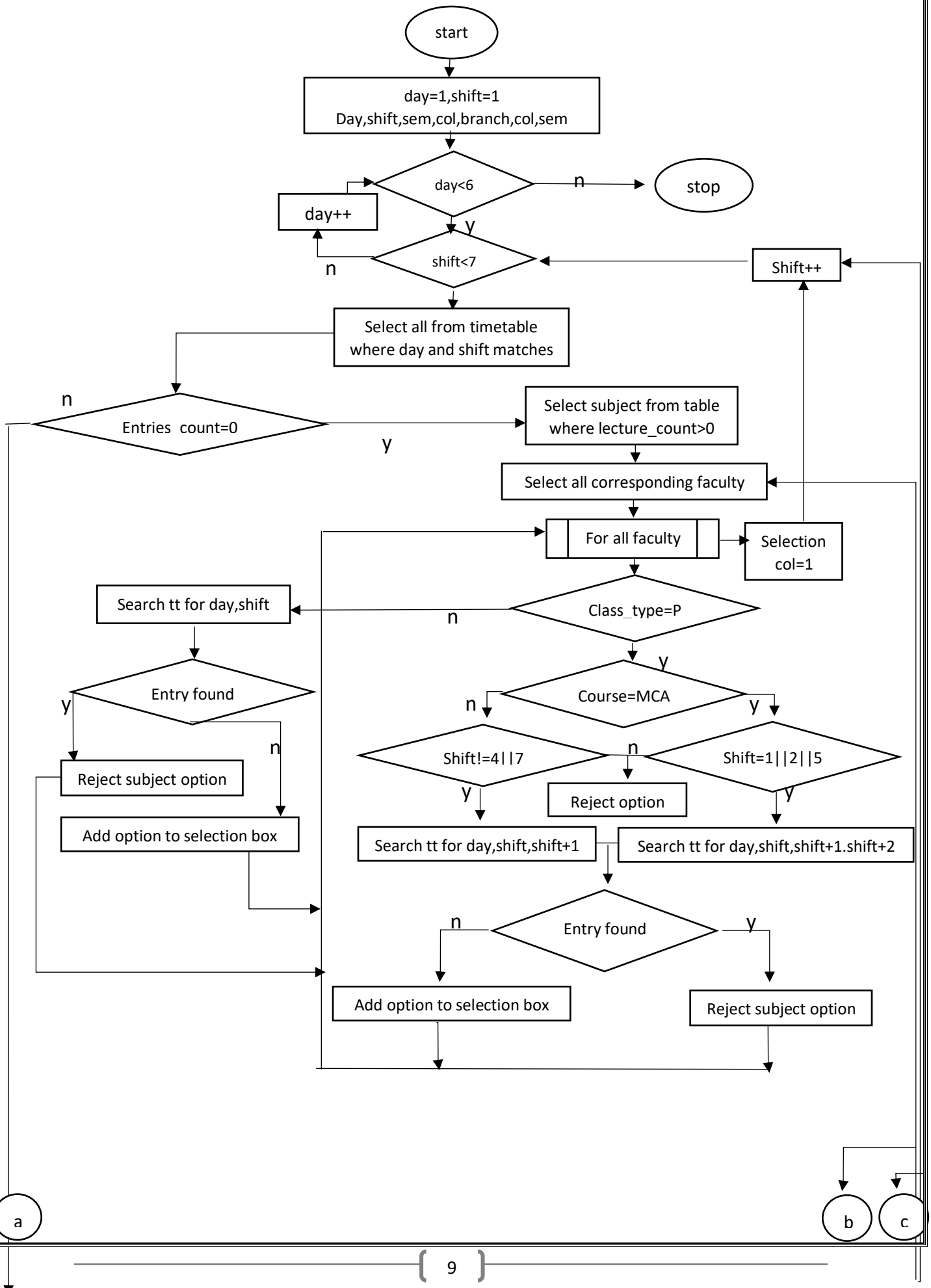
3. Design

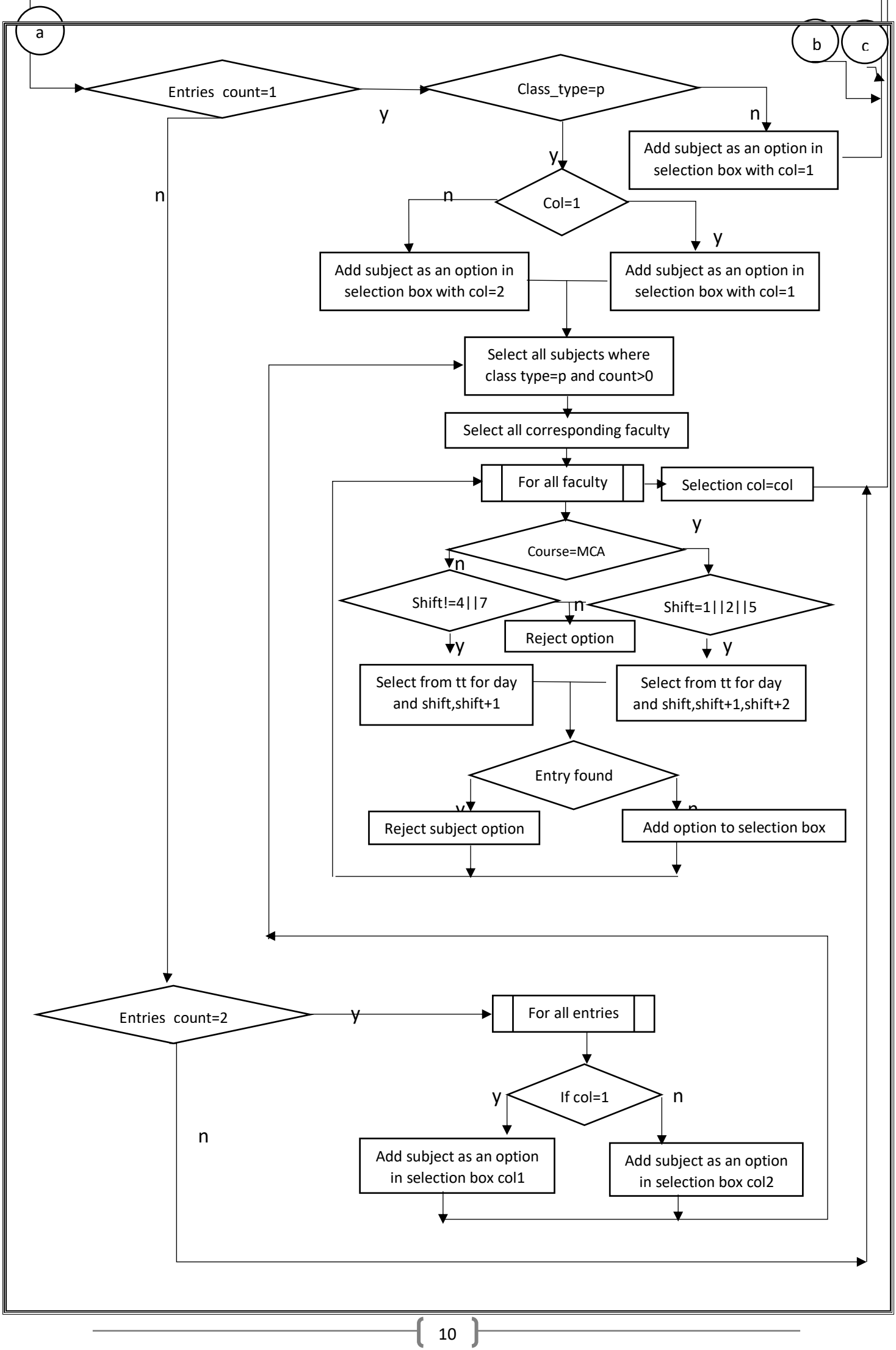
3.1 Flow Charts

Flow Chart(1):TimeTableHelper(Branch,course,sem,shift,day,col,subject_Sr)



Flow Chart(2):updateOptions(Branch,course,sem,shift,day,col,subject_Sr)

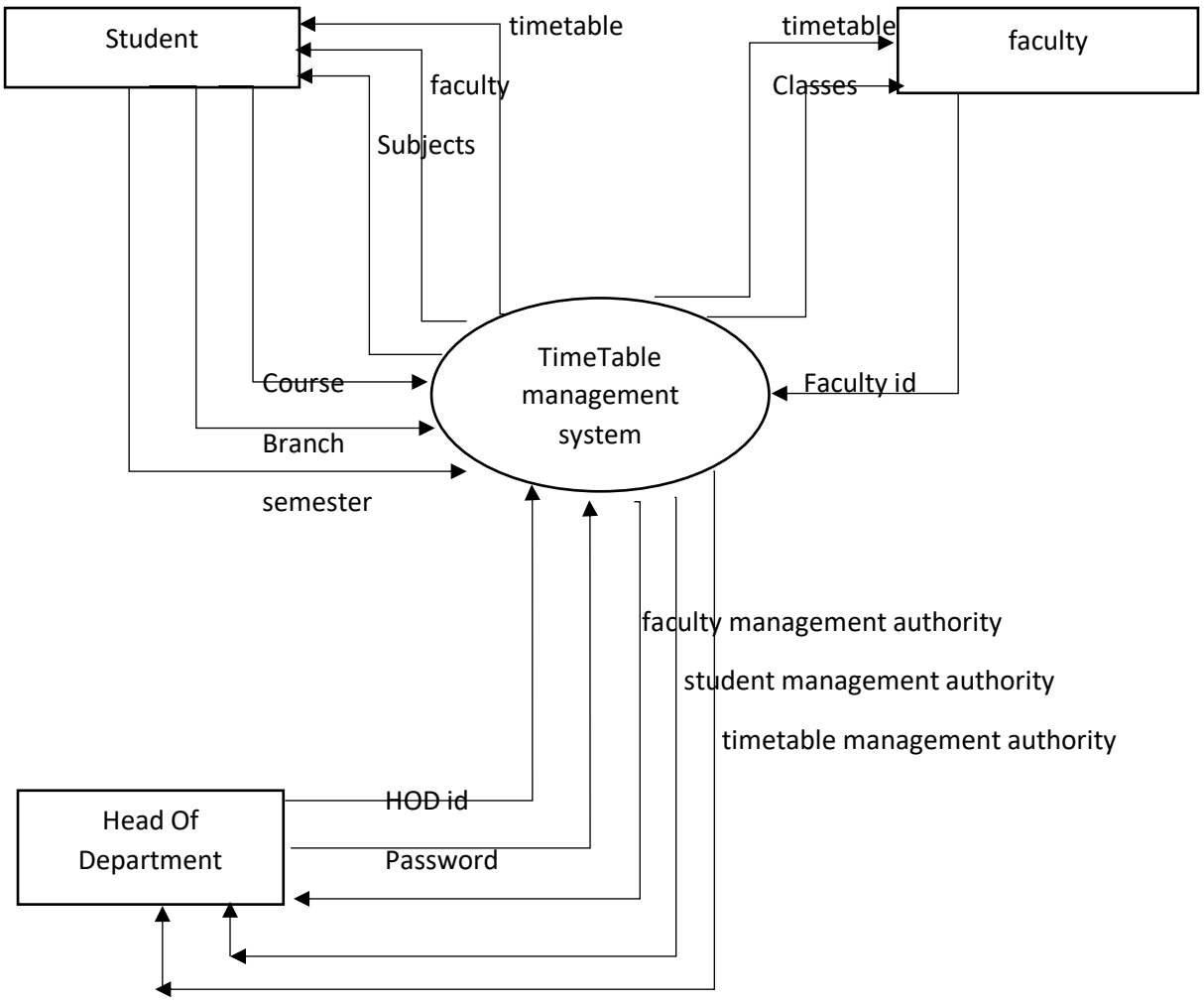



a
b
c
Entries count=1
y
Class_type=p
n
Add subject as an option in selection box with col=1
y
n
Col=1
n
y
Add subject as an option in selection box with col=2
Add subject as an option in selection box with col=1
Select all subjects where class type=p and count>0
Select all corresponding faculty
For all faculty
Selection col=col
y
Course=MCA
n
Shift!=4||7
n
Shift=1||2||5
Reject option
y
y
Select from tt for day and shift,shift+1
Select from tt for day and shift,shift+1,shift+2
Entry found
Reject subject option
Add option to selection box
Entries count=2
y
For all entries
y
If col=1
n
n
Add subject as an option in selection box col1
Add subject as an option in selection box col2

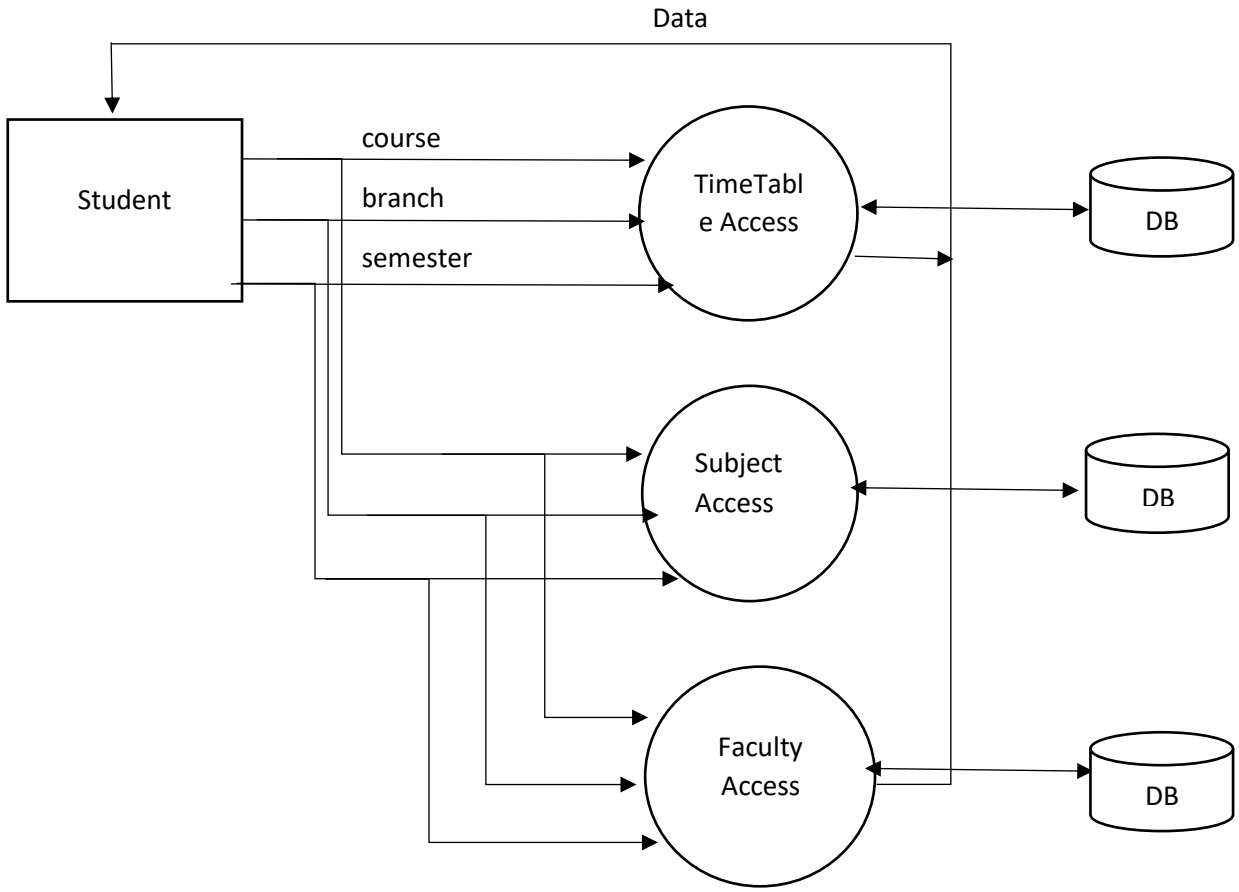
3.2 Entity Relationship Diagram

3.3 Data Flow Diagram

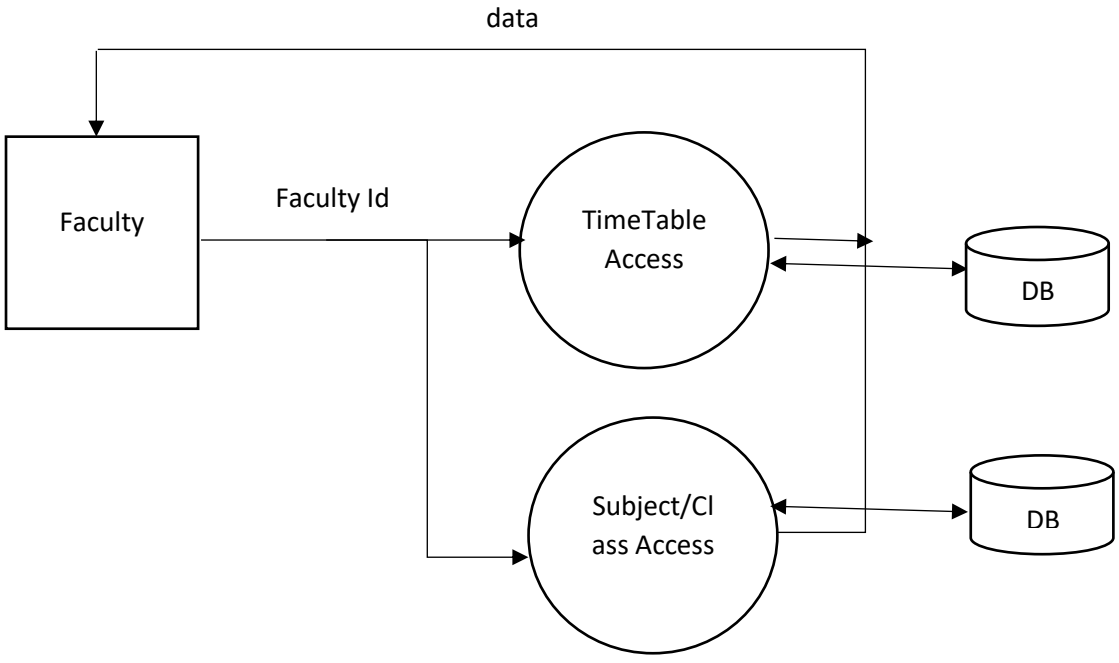
Data Flow Diagram (level 0):



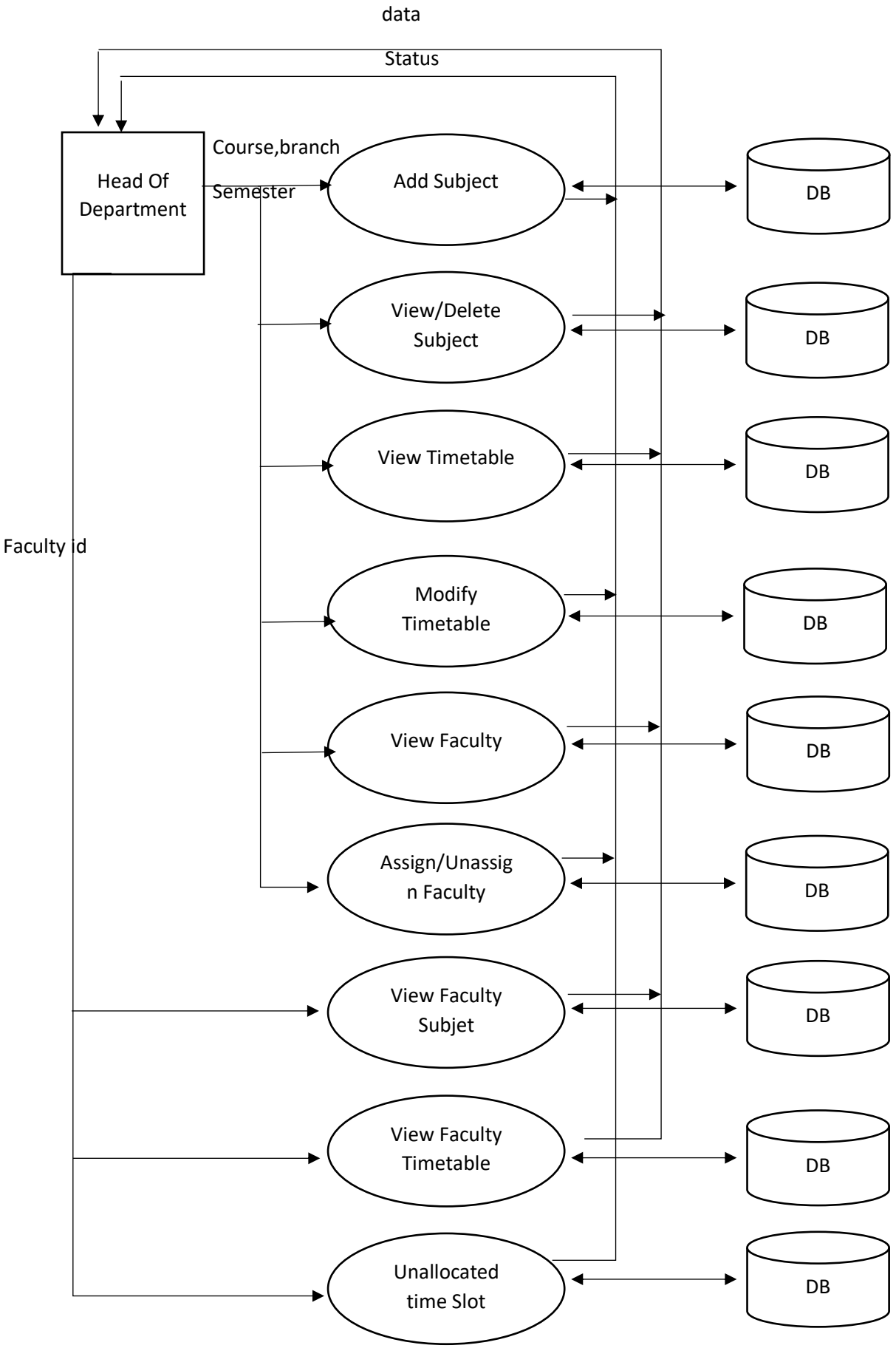
Data Flow Diagram (level 1) Student Panel:



Data Flow Diagram (level 1) Faculty Panel:

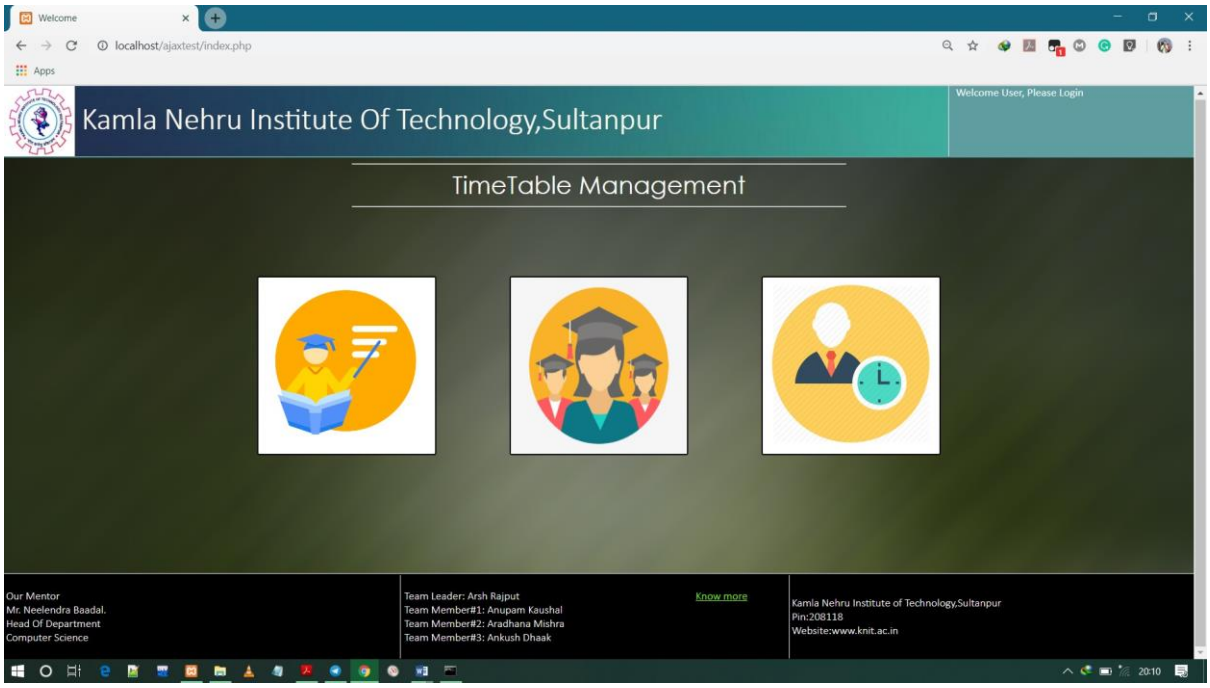


Data Flow Diagram (level 1) Head Of Department:

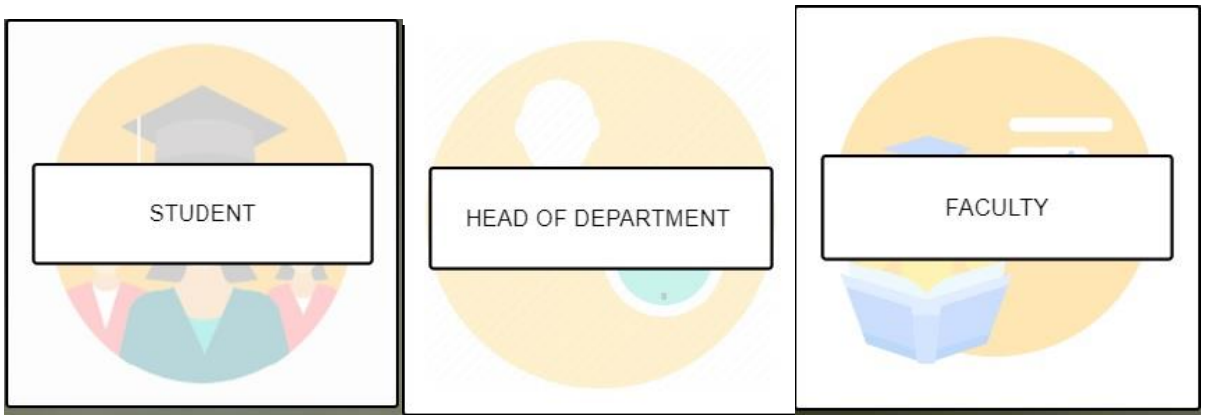


4. Screenshots:

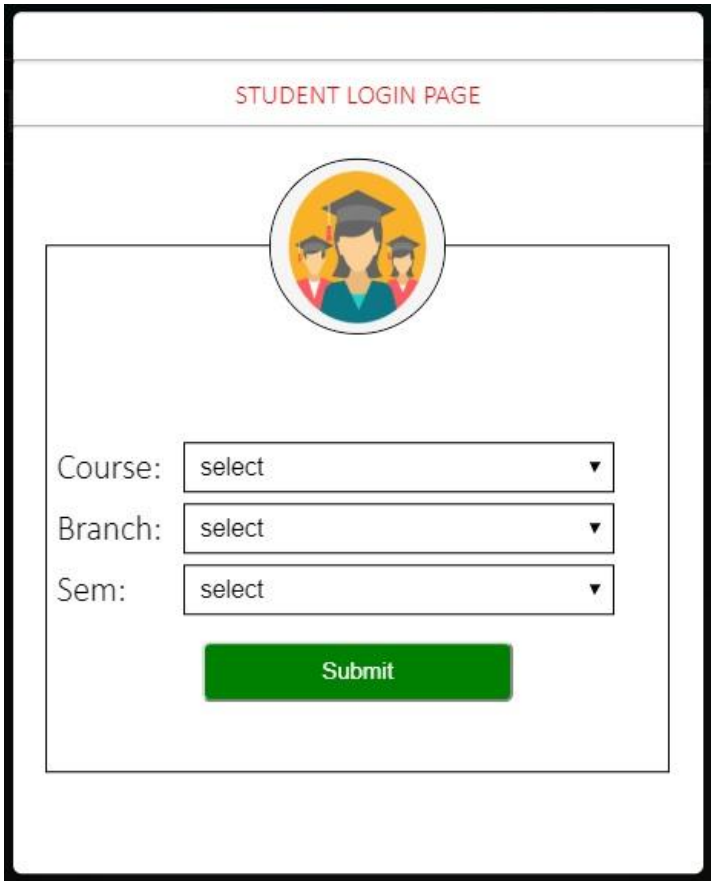
Main Page:



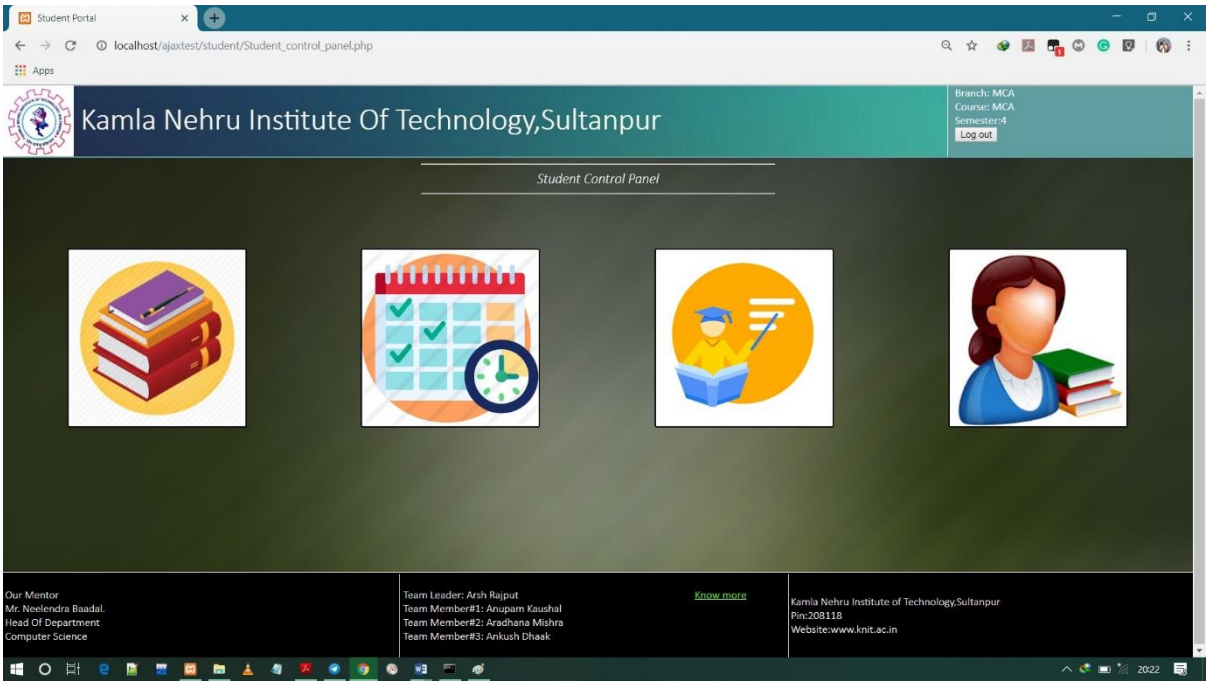
Main Page Buttons



Student Login



Student Control Panel



Student Subjects

Course: MCA Branch: MCA Sem: 4

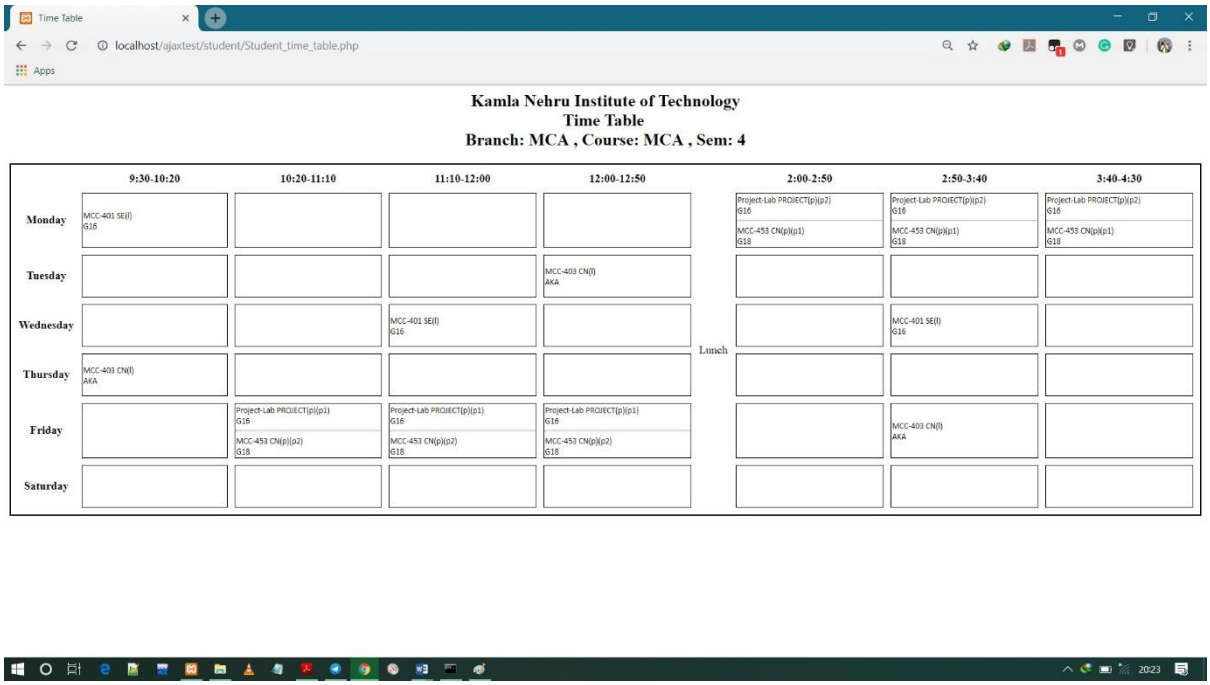
Subject Code	Subject Name	Class Type	Batch
MCC-402	Web Technology	l	whole class
MCC-403	Computer Network	l	whole class
E2	Elective 2	l	whole class
E3	Elective 3	l	whole class
MCC-401	Software Engineering	l	whole class
HV	Human Values	l	whole class
Project-Lab	MIni Project Lab	p	batch 1
MCC-453	Computer Network	p	batch 1
MCC-401	Software Engineering	t	batch 1
E3	Elective 3	t	batch 1
E2	Elective 2	t	batch 1
MCC-402	Web Technology	t	batch 1
MCC-403	Computer Network	t	batch 1
MCC-453	Computer Network	p	batch 2
MCC-401	Software Engineering	t	batch 2
E3	Elective 3	t	batch 2
E2	Elective 2	t	batch 2
MCC-403	Computer Network	t	batch 2
MCC-402	Web Technology	t	batch 2
Project-Lab	MIni Project Lab	p	batch 2

Student Faculty

Faculty
Course: MCA Branch: MCA Sem: 4

Faculty code	Faculty Name
G16	Prof Raushan Kumar Singh
G16	Prof Raushan Kumar Singh
G16	Prof Raushan Kumar Singh
AKA	Dr. Abhay Kumar Agraval
G18	Prof Sudhir Mohan
G18	Prof Sudhir Mohan

Student Timetable



Time Table

localhost/ajaxtest/student/Student_time_table.php

Apps

Kamla Nehru Institute of Technology
Time Table
Branch: MCA , Course: MCA , Sem: 4

	9:30-10:20	10:20-11:10	11:10-12:00	12:00-12:50		2:00-2:50	2:50-3:40	3:40-4:30
Monday	MCC-401 SE(I) G16					Project-Lab PROJECT(p)(p2) G16 MCC-453 CN(p)(p1) G18	Project-Lab PROJECT(p)(p2) G16 MCC-453 CN(p)(p1) G18	Project-Lab PROJECT(p)(p2) G16 MCC-453 CN(p)(p1) G18
Tuesday				MCC-403 CN(I) AKA				
Wednesday			MCC-401 SE(I) G16				MCC-401 SE(I) G16	
Thursday	MCC-403 CN(I) AKA				Lunch			
Friday		Project-Lab PROJECT(p)(p1) G16 MCC-453 CN(p)(p2) G18	Project-Lab PROJECT(p)(p1) G16 MCC-453 CN(p)(p2) G18	Project-Lab PROJECT(p)(p1) G16 MCC-453 CN(p)(p2) G18			MCC-403 CN(I) AKA	
Saturday								

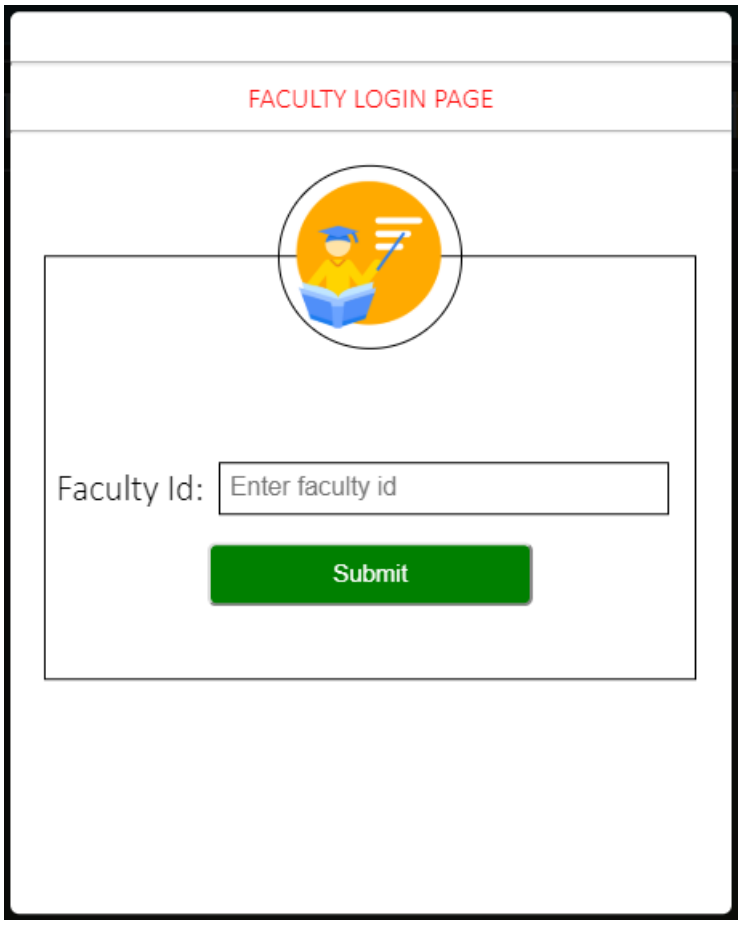
2023

Student Subject faculty Relationship

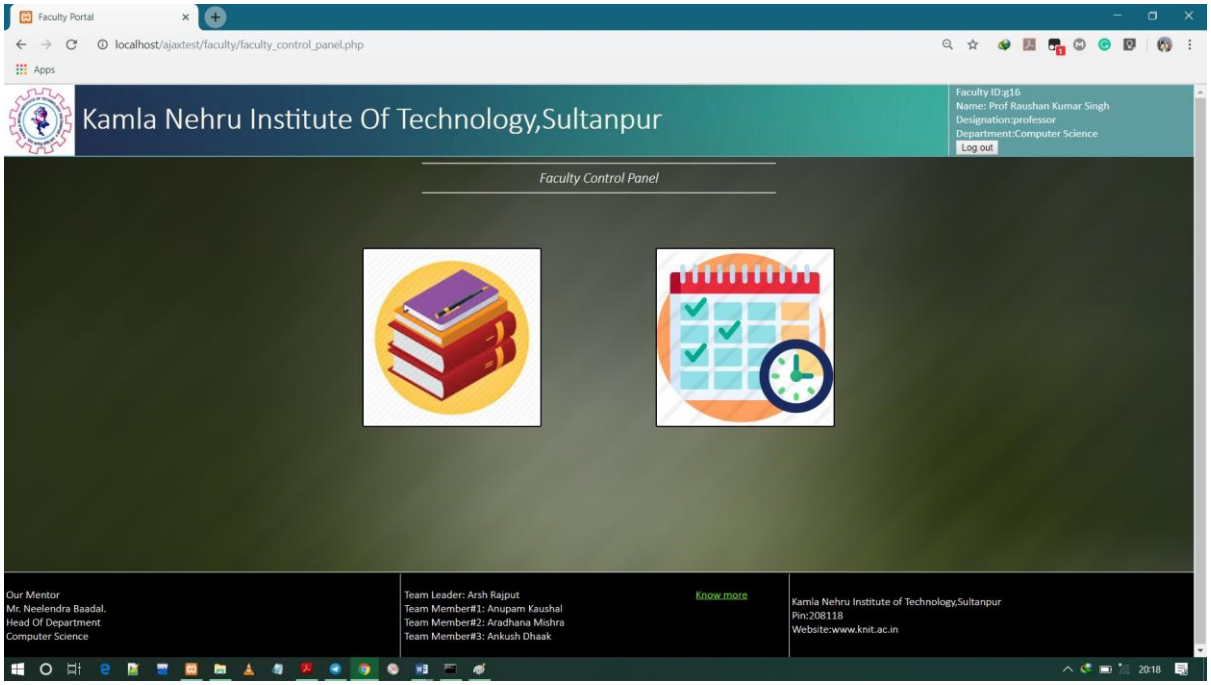
Faculty<-->Subjects
Course: MCA Branch: MCA Sem: 4

Faculty Code	Faculty Name	Subject Code	Subject Name	Class type	Batch
G16	Prof Raushan Kumar Singh	MCC-401	Software Engineering	l	whole class
G16	Prof Raushan Kumar Singh	Project-Lab	MIni Project Lab	p	batch 1
G16	Prof Raushan Kumar Singh	Project-Lab	MIni Project Lab	p	batch 2
AKA	Dr. Abhay Kumar Agraval	MCC-403	Computer Network	l	whole class
G18	Prof Sudhir Mohan	MCC-453	Computer Network	p	batch 1
G18	Prof Sudhir Mohan	MCC-453	Computer Network	p	batch 2

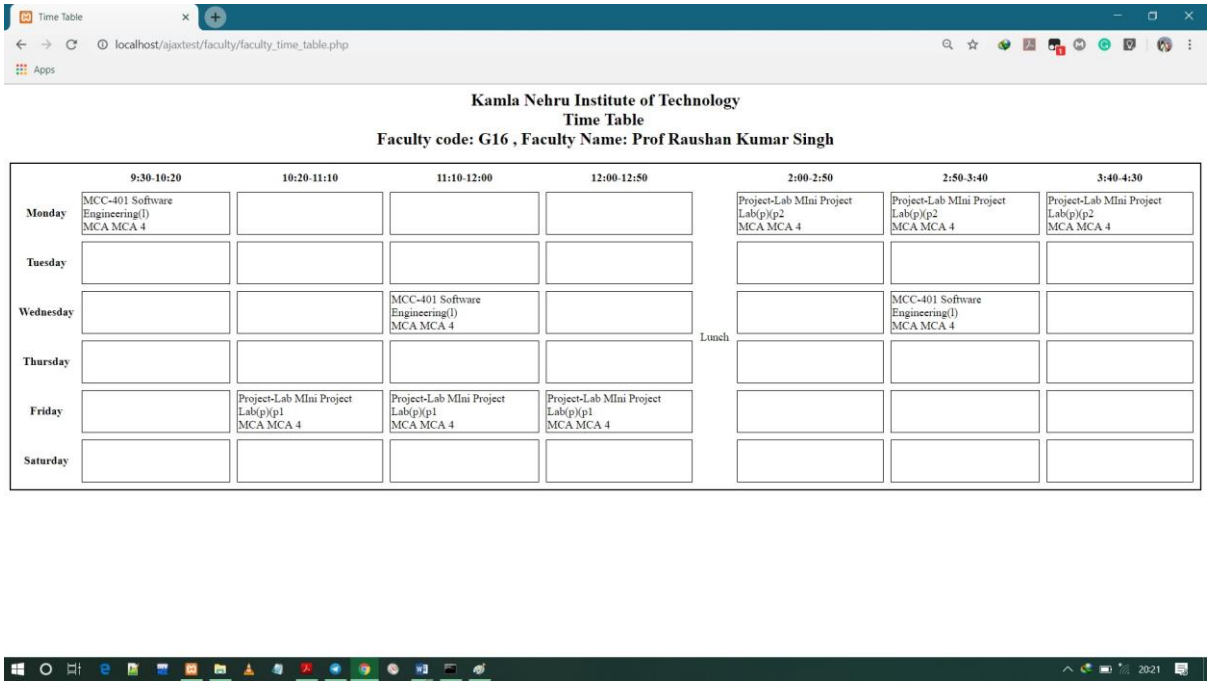
Faculty Login



Faculty Control Panel



Faculty Timetable



Time Table

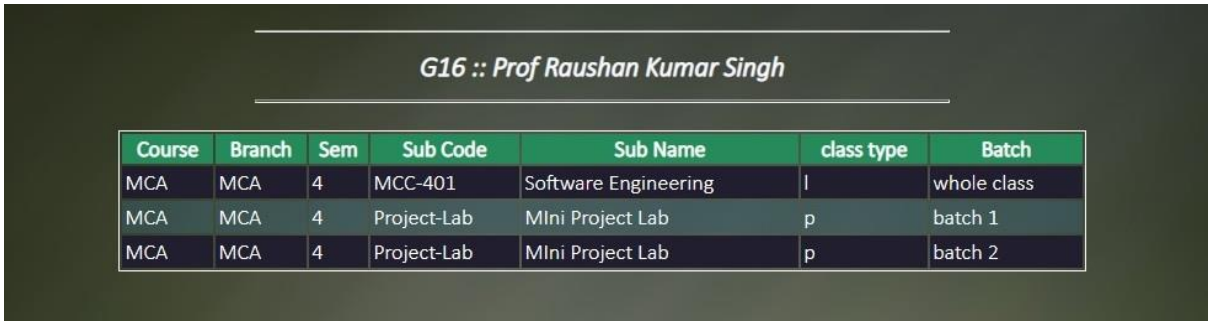
localhost/ajaxtest/faculty/faculty_time_table.php

Apps

Kamla Nehru Institute of Technology
Time Table
Faculty code: G16 , Faculty Name: Prof Raushan Kumar Singh

	9:30-10:20	10:20-11:10	11:10-12:00	12:00-12:50		2:00-2:50	2:50-3:40	3:40-4:30
Monday	MCC-401 Software Engineering(l) MCA MCA 4					Project-Lab MIni Project Lab(p)(p2 MCA MCA 4	Project-Lab MIni Project Lab(p)(p2 MCA MCA 4	Project-Lab MIni Project Lab(p)(p2 MCA MCA 4
Tuesday								
Wednesday			MCC-401 Software Engineering(l) MCA MCA 4				MCC-401 Software Engineering(l) MCA MCA 4	
Thursday					Lunch			
Friday		Project-Lab MIni Project Lab(p)(p1 MCA MCA 4	Project-Lab MIni Project Lab(p)(p1 MCA MCA 4	Project-Lab MIni Project Lab(p)(p1 MCA MCA 4				
Saturday								

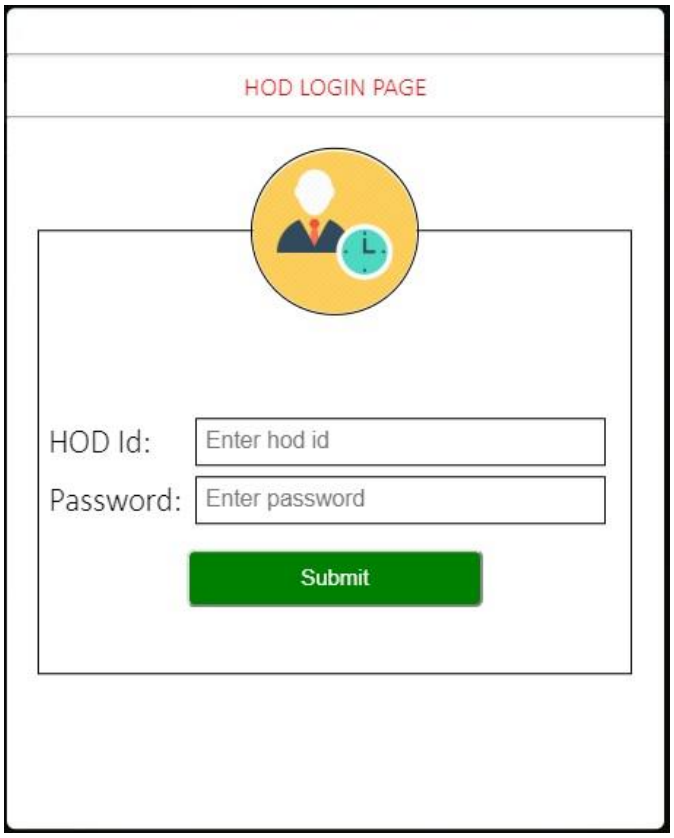
View Faculty Assigned Subjects



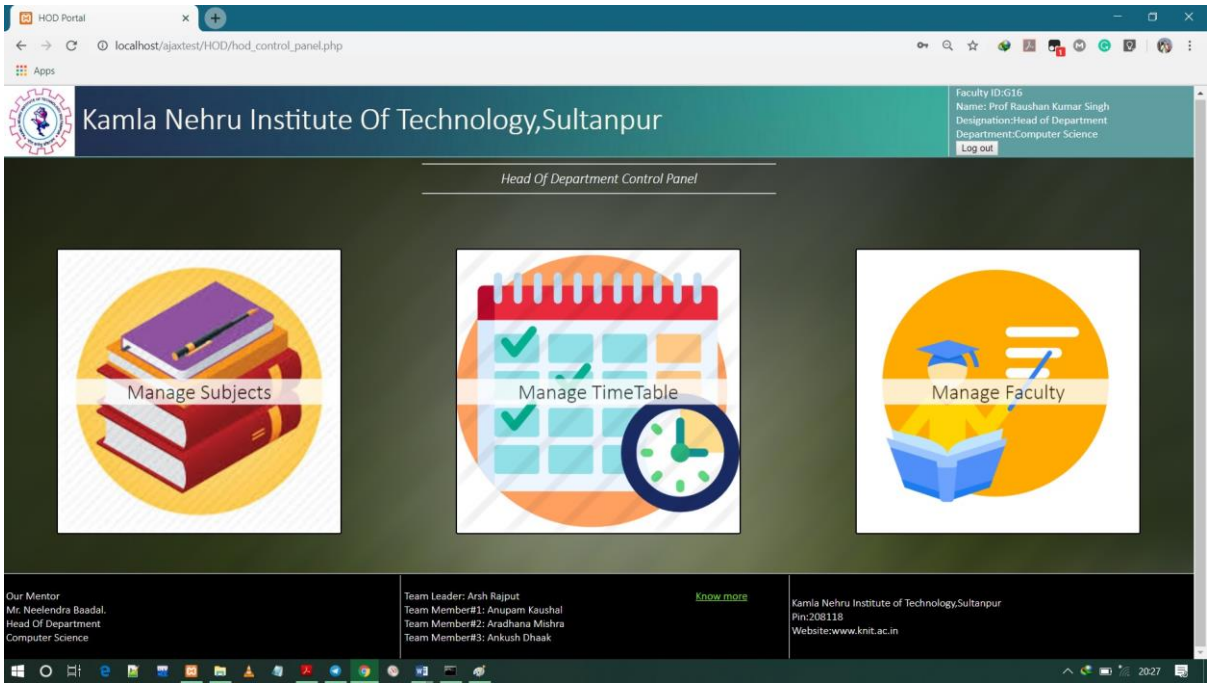
G16 :: Prof Raushan Kumar Singh

Course	Branch	Sem	Sub Code	Sub Name	class type	Batch
MCA	MCA	4	MCC-401	Software Engineering	l	whole class
MCA	MCA	4	Project-Lab	MIni Project Lab	p	batch 1
MCA	MCA	4	Project-Lab	MIni Project Lab	p	batch 2

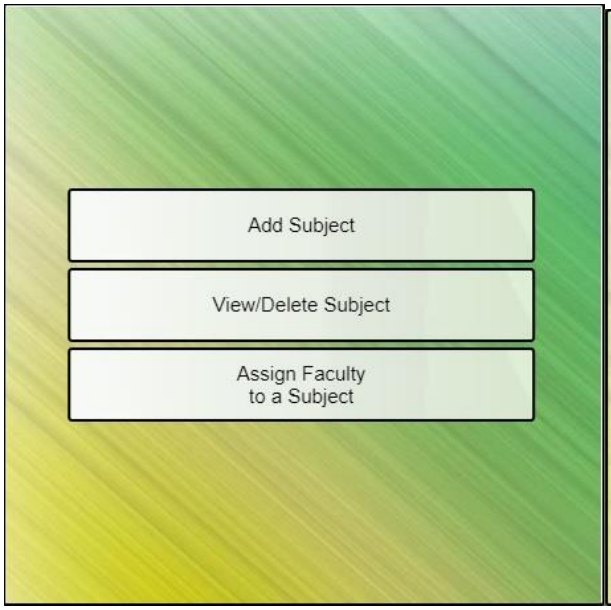
Head of Department Login



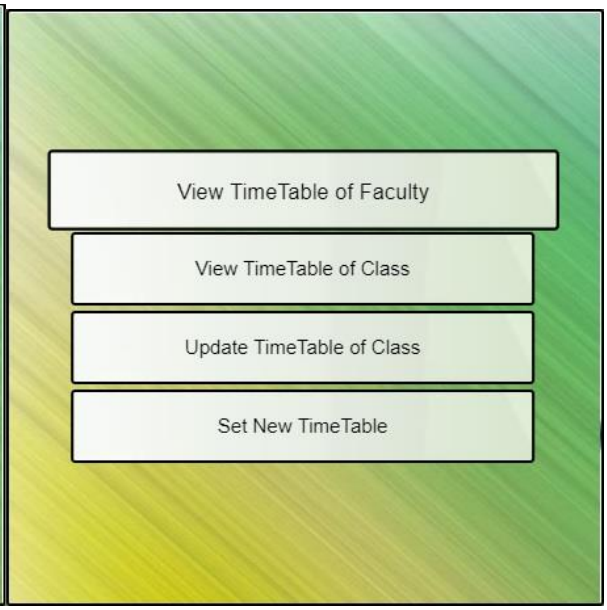
Head of Department Control Panel



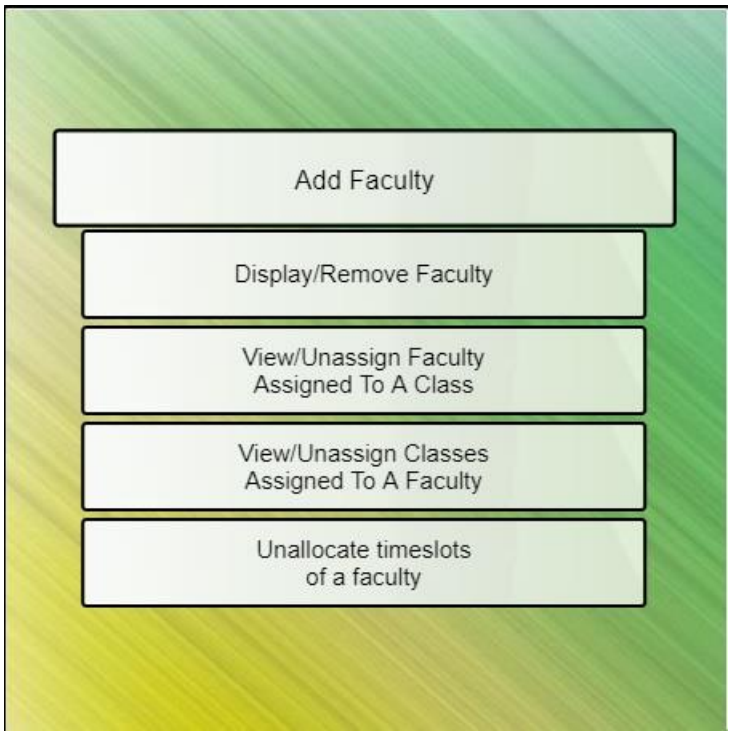
Manage Subjects



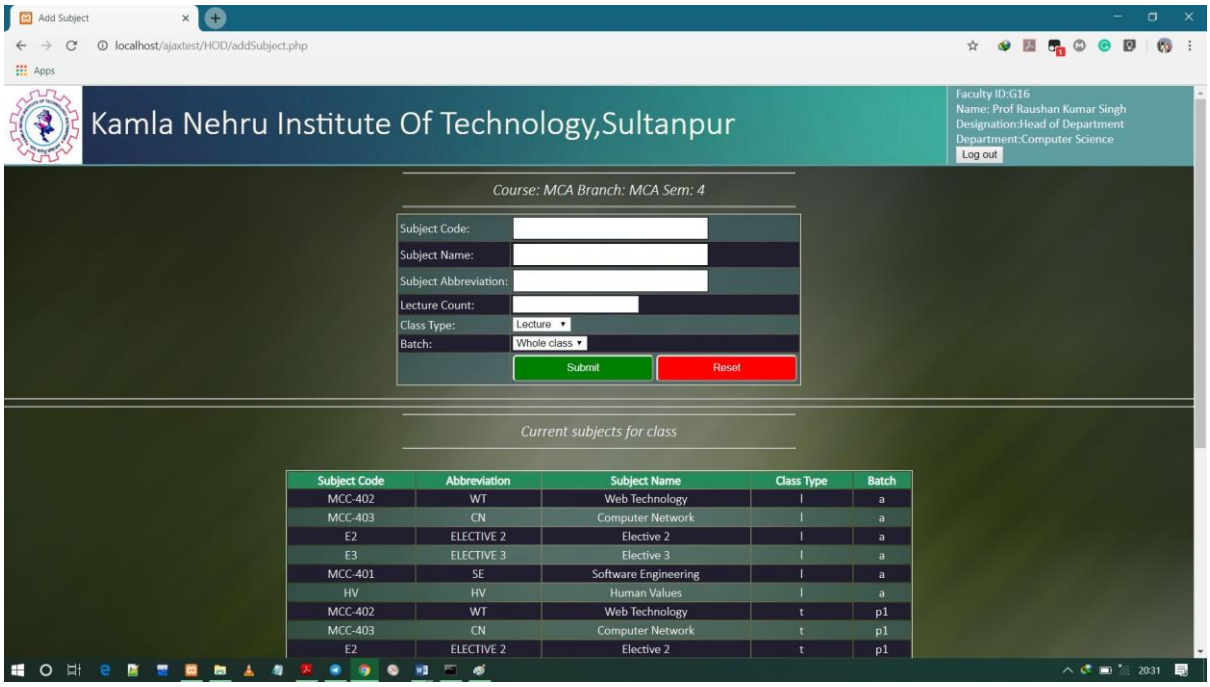
Manage Timetable



Manage Faculty

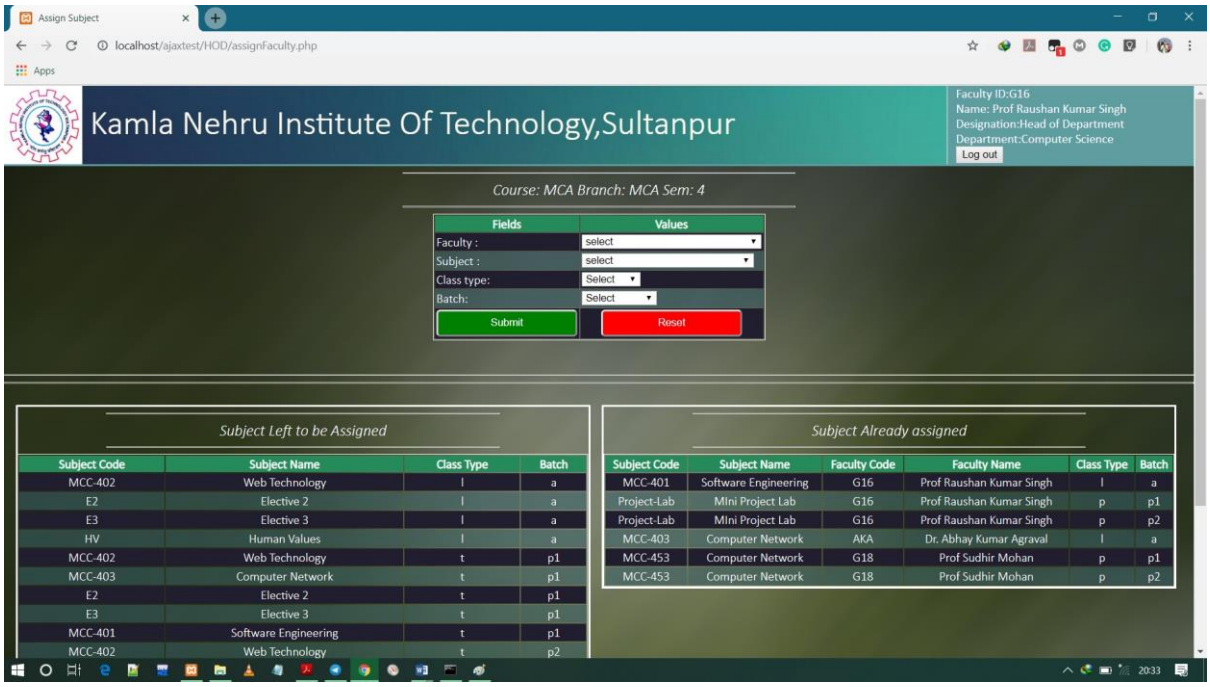


Add Subject

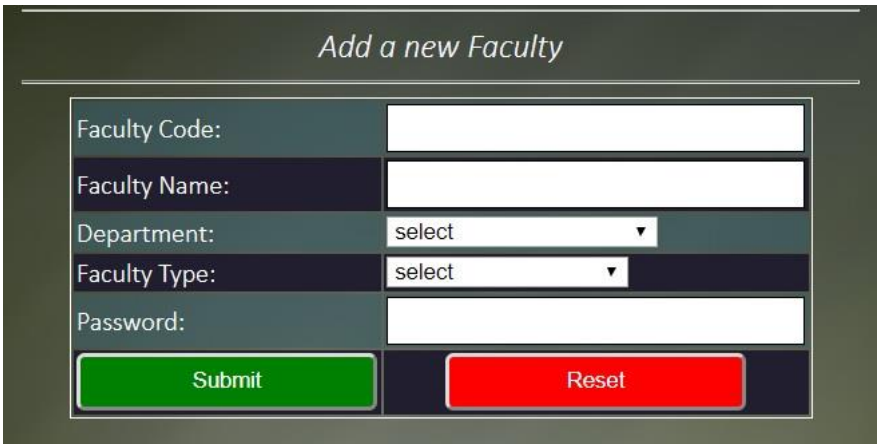


Remove Subjects

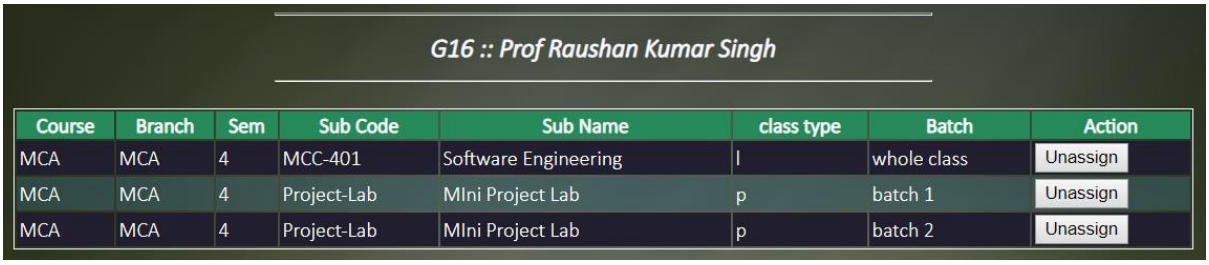
Assign Faculty



Add Faculty



Unassigned Subject of Faculty



UnAssign Subject of Class

Faculty-Subjects
Course: MCA Branch: MCA Sem: 4

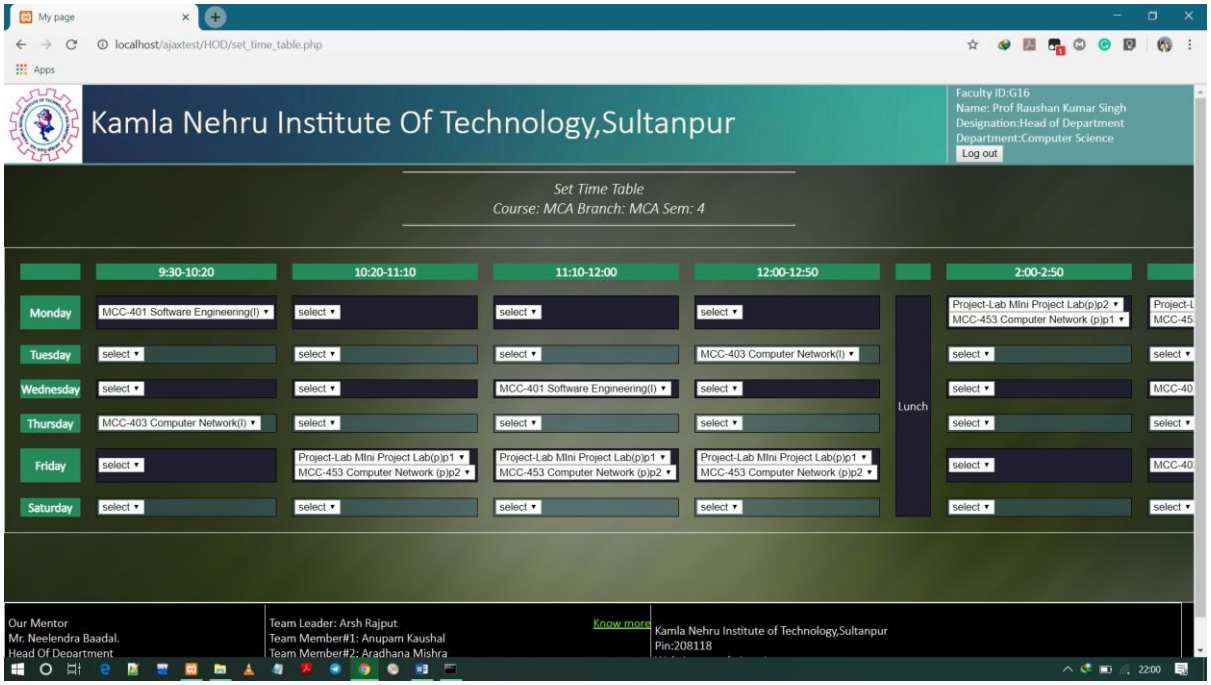
Faculty Code	Faculty Name	Faculty Department	Subject Code	Subject Name	Class type	Batch	Action
G16	Prof Raushan Kumar Singh	Computer Science	MCC-401	Software Engineering	l	whole class	Unassign
G16	Prof Raushan Kumar Singh	Computer Science	Project-Lab	MIni Project Lab	p	batch 1	Unassign
G16	Prof Raushan Kumar Singh	Computer Science	Project-Lab	MIni Project Lab	p	batch 2	Unassign
AKA	Dr. Abhay Kumar Agraval	Computer Science	MCC-403	Computer Network	l	whole class	Unassign
G18	Prof Sudhir Mohan	Computer Science	MCC-453	Computer Network	p	batch 1	Unassign
G18	Prof Sudhir Mohan	Computer Science	MCC-453	Computer Network	p	batch 2	Unassign

Unallocate Timeslot for Faculty

G16 :: Prof Raushan Kumar Singh

Branch	Course	Semester	Subject code	Subject Name	day	shift	class type	batch	Action
MCA	MCA	4	MCC-401	Software Engineering	Monday	9:30-10:20	l	a	UnAllocate
MCA	MCA	4	Project-Lab	MIni Project Lab	Friday	10:20-11:10	p	p1	UnAllocate
MCA	MCA	4	Project-Lab	MIni Project Lab	Friday	11:10-12:00	p	p1	UnAllocate
MCA	MCA	4	Project-Lab	MIni Project Lab	Friday	12:00-12:50	p	p1	UnAllocate
MCA	MCA	4	Project-Lab	MIni Project Lab	Monday	02:00-02:50	p	p2	UnAllocate
MCA	MCA	4	Project-Lab	MIni Project Lab	Monday	02:50-03:40	p	p2	UnAllocate
MCA	MCA	4	Project-Lab	MIni Project Lab	Monday	03:40-04:30	p	p2	UnAllocate
MCA	MCA	4	MCC-401	Software Engineering	Wednesday	02:50-03:40	l	a	UnAllocate
MCA	MCA	4	MCC-401	Software Engineering	Wednesday	11:10-12:00	l	a	UnAllocate

Update/Create Timetable



5. TESTING:

5.1 System Testing

System testing involves testing the system to validate that it meets that it meets users Specifications and objectives that are as follows:-

1. To analyse the test result
2. Test the system against user requirement

The components to be tested are:-

- To test the system to validate it only accepts valid data.
- Check whether the system is giving the required output

5.2 Alpha Testing

Alpha testing is conducted by the software development team at the developer's side. The alpha testing proceeds until the system developer and the customer agreed that the provided system is an acceptable implementation of the system requirements.

5.3 Beta Testing

Beta testing is performed by a group of friendly customers in the presence of the software development team. During Beta testing a system is delivered among a number of potential users who agree to use it. The customers then report problems to the developers. This provides the product for real use and detects errors which may not have been anticipated by the system developers.

5.4 Acceptance Testing

Acceptance testing is performed by the customers themselves. If the software is successful in acceptance testing, the product is installed at the customer site.

5.5 Black Box Testing

This method enables the software engineer to device sets of input techniques that fully Exercise all functional requirements for a program. Black box testing tests the input, the output and the external data, it checks whether the input data is correct and whether we are getting the desired output.

5.6 White Box Testing

White box testing is the testing of a software solution's internal coding and Infrastructure. It focuses primarily on strengthening security, the flow of inputs and Outputs through the application, and improving design and usability. White box testing involves the testing of the software code for the following:

- Internal security holes
- The flow of specific inputs through the code
- Expected output
- Testing of each statement, object and function on an individual basis

The testing can be done at system, integration and unit levels of software development. One of the basic goals of white box testing is to verify a working flow for an application. It involves testing a series of predefined inputs against expected or desired outputs so that when a specific input does result in the expected output, you have encountered a bug.

6. BENEFITS OF PROJECT:

- The system will help to reduce the cost of labour.
- Atomization of several work in school or college.
- The system will be less probable to make mistake, since it's a machine.
- This will avoid long notes and loss of data due to some misunderstanding.
- The system will be available 24 hours for 365 days, because the machine is not going to take any sick or vacation leave.
- This will minimize the number of employees at the back of the counter.
- Work becomes very speedy.
- Robust database back-end.
- Easy and fast retrieval of information.
- User friendly and interactive.
- Reduce time in making hand written records.
- Builds a Student Database.

7. FUTURE SCOPE:

There are also few features which can be integrated with this system to make it more Flexible. Below list shows the future points to be consider.

- Adding some more facilities for teachers.
- Adding some more facilities for the student.
- Adding more control to HOD
- Library related information Management.
- Producing Results using connected device.
- Assignments related information management.
- Extra-Curricular activities management.

8. CONCLUSION:

The whole systems activities are divided into three major parts like Student Faculty and head Of Department. Each one has their own role to perform and system respond accordingly. The system comprise of following features.

1. Introduce new Subject to a Class
2. Add new Faculty in System
3. Assign new subject to a faculty
4. Create new timetable
5. Modification in faculty data
6. Modification in subject data
7. Remove faculty subjects
8. Unassigned subject class of a faculty
9. View time table of student as well as Faculty

9. REFERENCES:

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