



Content Management System

An Idea Implementation Of Database Project

Proposed by:

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Proposed to:

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Introduction

Welcome to our Content Management System (CMS)!

CMS is a Content Management System desktop application that is used by almost all the educational institutions (in today's era of technology) to manage their records. With distinct user roles, Admin, Instructor and Student, our system ensures secure login processes and enhanced functionalities. Admins are responsible for addition/registration of teachers, students, and the courses. In addition, they will also be responsible for managing the timetables of the classes. Lastly, they will be able to change their passwords (if they want to). Teachers have the rights to view their personal information and their class schedules, mark student's attendances, assign grades to students, and change their profile's password (if needed). However, students can view their personal information and class schedules, check their attendances, and the grades assigned to them, along with changing their profile's passwords. The application is quite user-friendly and easy to use.

The primary objective of this application is to develop an enhanced version of the Content Management System (CMS) for the ease of educational institutions. The software will be developed using the Graphical User Interface and some other methods of Java Programming language on the front end, while on the backend, it will be developed using MySQL.

Problem Statement

In today's rapidly evolving educational landscape, the efficient management of academic and administrative tasks within educational institutions has become increasingly challenging. The manual, paper-based methods employed for student management, teacher coordination, and administrative tasks have resulted in significant administrative burdens, reduced transparency, and hindered decision-making processes. The challenges most frequently faced are:

- 1. Manual Administrative Processes:** The reliance on manual processes for student registration, course enrolment, attendance tracking, and grading has led to inefficiencies, errors, and delays in administrative tasks along with increased administrative workload.

- 2. Disparate Data Systems:** Data is currently fragmented across multiple systems and spreadsheets, leading to data silos and difficulties in accessing and consolidating relevant information for decision-making. This Reduced efficiency in academic operations, results in delays and errors.
- 3. Limited Accessibility:** Students, teachers, and administrators face challenges in accessing timely and relevant information, such as class schedules, grades, and attendance records, leading to frustration and inefficiencies in academic operations.

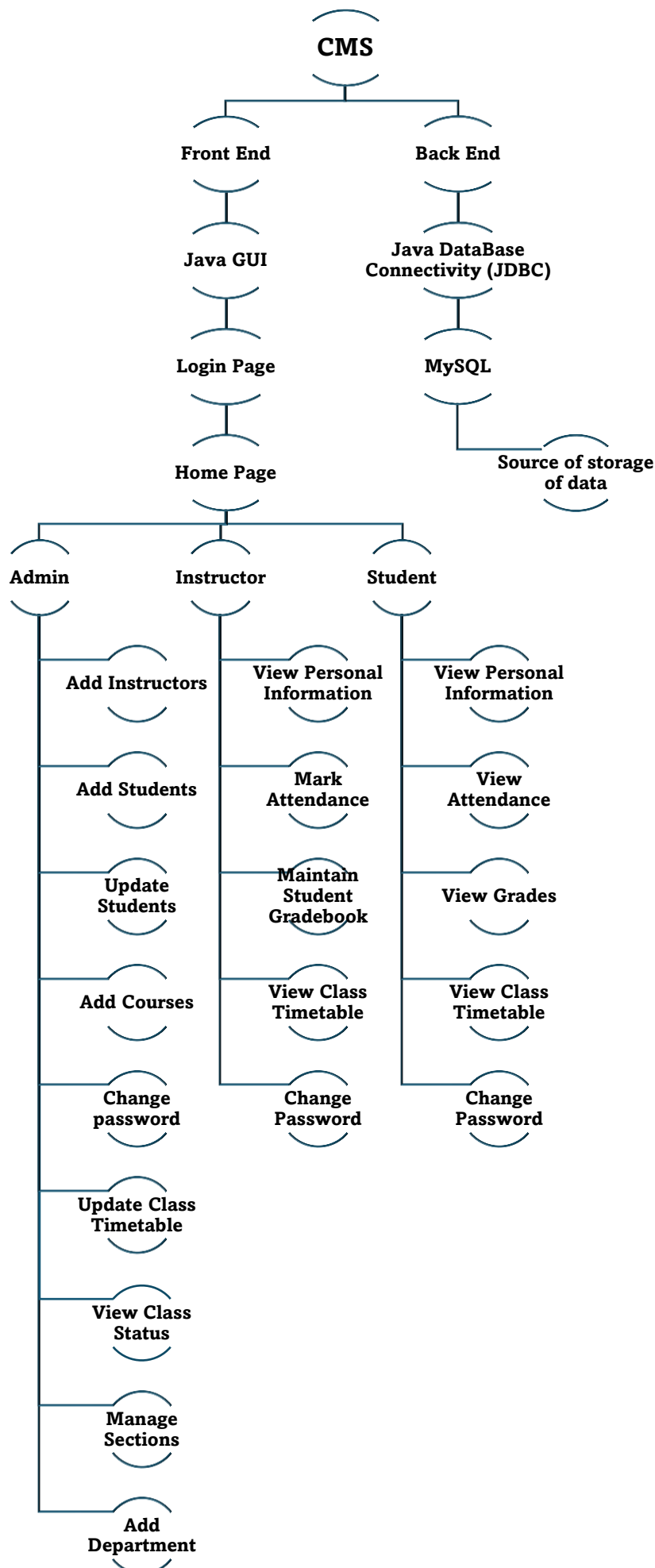
Project Scope

The CMS desktop application aims to streamline administrative tasks within educational institutions. It will provide user-friendly interfaces for administrators, instructors, and students to manage user registrations, course information, timetables, attendance records, grades, and passwords. The system will enhance communication, improve data management efficiency, and ensure a seamless experience for all users involved.

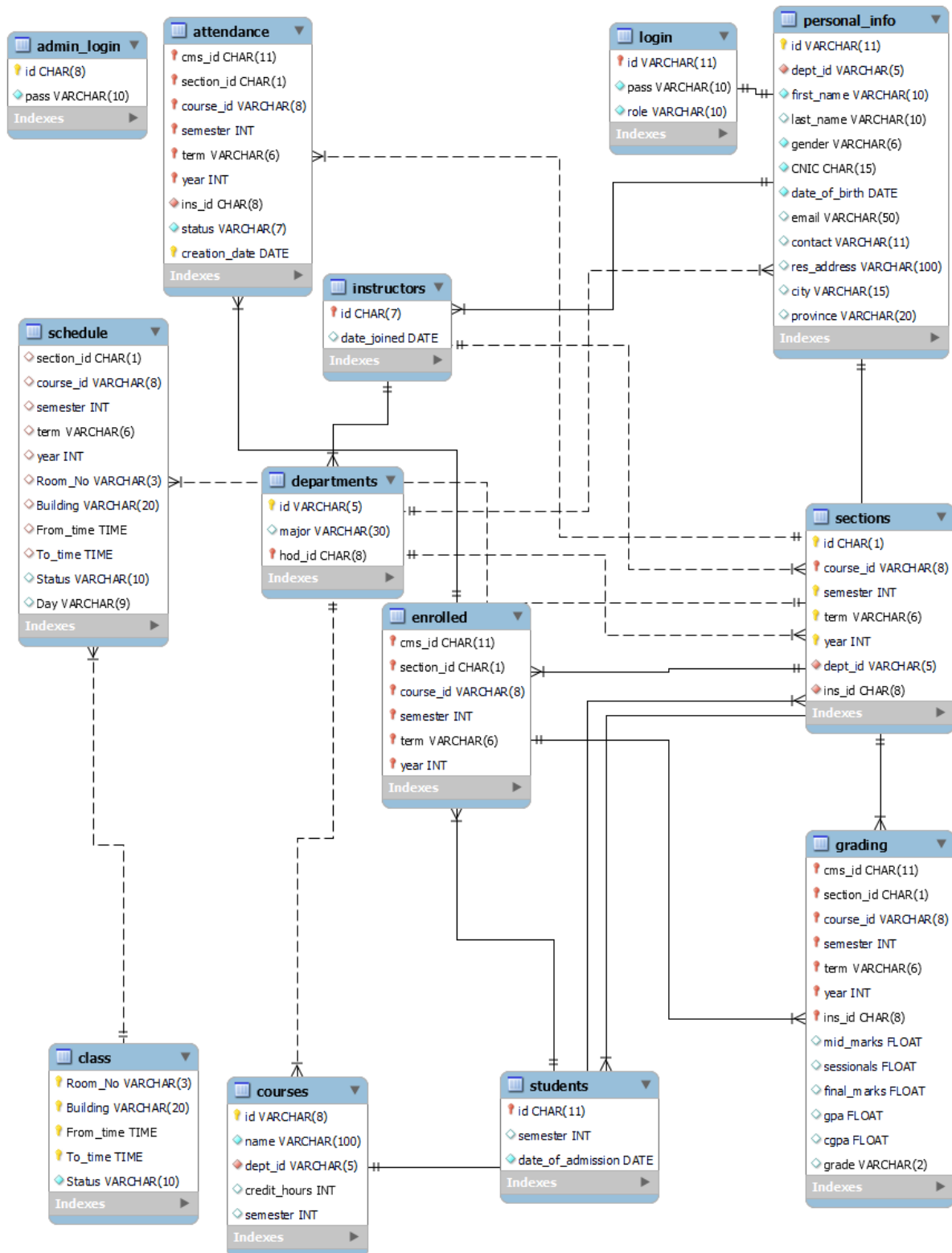
Proposed Methodology

The project is developed using the Java programming language using Netbeans IDE 18 as the Integrated Development Environment, and the JDK-20 as the version of Java Development Kit.

Overall, the proposed methodology resulted in a CMS desktop application that is engaging and pleasurable to use for users with varying degrees of expertise. With the help of Java's many frameworks and tools, we were able to create a feature-rich application with an intuitive user interface and good user experience. The system provides a smooth platform for managing educational duties and data for administrators, instructors, and students, resulting in a productive and interesting interaction for all parties involved.



Entity-Relationship Diagram



Relational Schema

```
CREATE TABLE `Admin_Login`(  
  `id` CHAR(8) PRIMARY KEY,  
  `pass` VARCHAR(10) NOT NULL  
);
```

```
CREATE TABLE `Departments`(  
  `id` VARCHAR(5) PRIMARY KEY,  
  `major` VARCHAR(30),  
  `hod_id` CHAR(8),  
  FOREIGN KEY(`hod_id`) REFERENCES `Instructors`(`id`)  
  ON UPDATE CASCADE  
);
```

```
CREATE TABLE `Personal_Info`(  
  `id` VARCHAR(11) PRIMARY KEY,  
  `dept_id` VARCHAR(5) NOT NULL,  
  `first_name` VARCHAR(10) NOT NULL,  
  `last_name` VARCHAR(10),  
  `gender` VARCHAR(6) NOT NULL,  
  `CNIC` CHAR(15) NOT NULL UNIQUE,  
  `date_of_birth` DATE NOT NULL,  
  `email` VARCHAR(50) UNIQUE,  
  `contact` VARCHAR(11) UNIQUE,  
  `res_address` VARCHAR(100),  
  `city` VARCHAR(15),  
  `province` VARCHAR(20),  
  FOREIGN KEY (`dept_id`) REFERENCES `Departments`(`id`)  
  ON UPDATE CASCADE  
);
```

```
CREATE TABLE `Instructors`(  
  `id` CHAR(7) PRIMARY KEY,  
  `date_joined` DATE CONSTRAINT CHECK (YEAR(`date_joined`) >=  
2023),  
  FOREIGN KEY (`id`) REFERENCES `Personal_Info`(`id`)  
  ON UPDATE CASCADE  
);
```

```
CREATE TABLE `Login`(  
  `id` VARCHAR(11) PRIMARY KEY,  
  `pass` VARCHAR(10) NOT NULL,  
  `role` VARCHAR(10) NOT NULL,  
  FOREIGN KEY (`id`) REFERENCES `Personal_Info`(`id`)  
  ON UPDATE CASCADE
```

);

```
CREATE TABLE `Courses`(  
  `id` VARCHAR(8) PRIMARY KEY,  
  `name` VARCHAR(100) NOT NULL,  
  `dept_id` VARCHAR(5) NOT NULL,  
  `credit_hours` INT UNSIGNED,  
  `semester` INT UNSIGNED CHECK (`semester` <= 8),  
  FOREIGN KEY (`dept_id`) REFERENCES `Departments`(`id`)  
  ON UPDATE CASCADE  
);
```

```
CREATE TABLE `Sections` (  
  `id` CHAR(1),  
  `course_id` VARCHAR(8),  
  `semester` INT UNSIGNED CHECK (`semester` <= 8),  
  `term` VARCHAR(6) NOT NULL,  
  `year` INT NOT NULL CHECK (year>=2023),  
  `dept_id` VARCHAR(5) NOT NULL,  
  `ins_id` CHAR(8) NOT NULL,  
  PRIMARY KEY(`id`,`course_id`,`semester`,`term`,`year`),  
  FOREIGN KEY (`dept_id`)  
  REFERENCES `Departments`(`id`)  
  ON UPDATE CASCADE,  
  FOREIGN KEY (`ins_id`)  
  REFERENCES `Instructors`(`id`)  
  ON UPDATE CASCADE,  
  FOREIGN KEY (`course_id`)  
  REFERENCES `Courses`(`id`)  
  ON UPDATE CASCADE  
);
```

```
CREATE TABLE `Students`(  
  `id` CHAR(11) PRIMARY KEY,  
  `semester` INT UNSIGNED CHECK (`semester` <= 8),  
  `date_of_admission` DATE NOT NULL CHECK  
(YEAR(`date_of_admission`) >= 2023),  
  FOREIGN KEY (`id`) REFERENCES `Personal_Info`(`id`)  
  ON UPDATE CASCADE  
);
```

```
CREATE TABLE `Class` (  
  `Room_No` VARCHAR(3) ,  
  `Building` VARCHAR(20) ,
```

```
`From_time` TIME,  
`To_time` TIME,  
`Status` VARCHAR(10) NOT NULL,  
PRIMARY KEY(`Room_No`,`Building`,`From_time`,`To_time`)  
);
```

```
CREATE TABLE `Enrolled`(  
  `cms_id` CHAR(11),  
  `section_id` CHAR(1),  
  `course_id` VARCHAR(8),  
  `semester` INT UNSIGNED,  
  `term` VARCHAR(6),  
  `year` INT NOT NULL,  
  PRIMARY KEY (`cms_id`, `section_id`, `course_id`, `semester`, `term`,  
`year`),  
  FOREIGN KEY (`cms_id`) REFERENCES `Students`(`id`)  
  ON UPDATE CASCADE,  
  FOREIGN KEY (`section_id`, `course_id`, `semester`, `term`, `year`)  
  REFERENCES `Sections`(`id`, `course_id`, `semester`, `term`, `year`)  
  ON UPDATE CASCADE  
);
```

```
CREATE TABLE `Schedule`(  
  `section_id` CHAR(1),  
  `course_id` VARCHAR(8),  
  `semester` INT UNSIGNED,  
  `term` VARCHAR(6),  
  `year` INT,  
  `Room_No` VARCHAR(3) ,  
  `Building` VARCHAR(20) ,  
  `From_time` TIME,  
  `To_time` TIME,  
  `Status` VARCHAR(10) ,  
  `Day` VARCHAR(9),  
  FOREIGN KEY (`section_id`, `course_id`, `semester`, `term`, `year`)  
  REFERENCES `Sections`(`id`, `course_id`, `semester`, `term`, `year`)  
  ON UPDATE CASCADE,  
  FOREIGN KEY (`Room_no`, `Building`, `from_time`, `To_time`)  
  REFERENCES `class`(`Room_no`, `Building`, `from_time`, `To_time`)  
  ON UPDATE CASCADE  
);
```

```
CREATE TABLE `Grading`(  
  `cms_id` CHAR(11),  
  `section_id` CHAR(1),
```



```

`course_id` VARCHAR(8),
`semester` INT UNSIGNED,
`term` VARCHAR(6),
`year` INT NOT NULL,
`ins_id` CHAR(8) NOT NULL,
`mid_marks` FLOAT DEFAULT 0.00,
`sessionals` FLOAT DEFAULT 0.00,
`final_marks` FLOAT DEFAULT 0.00,
`gpa` FLOAT DEFAULT 0.00,
`cgpa` FLOAT DEFAULT 0.00,
`grade` VARCHAR(2),
PRIMARY KEY (`cms_id`, `ins_id`, `section_id`, `course_id`, `semester`,
`term`, `year`),
FOREIGN KEY (`ins_id`) REFERENCES `Sections`(`ins_id`)
ON UPDATE CASCADE,
FOREIGN KEY (`cms_id`, `section_id`, `course_id`, `semester`, `term`,
`year`) REFERENCES `Enrolled`(`cms_id`, `section_id`, `course_id`,
`semester`, `term`, `year`) ON UPDATE CASCADE
);

```

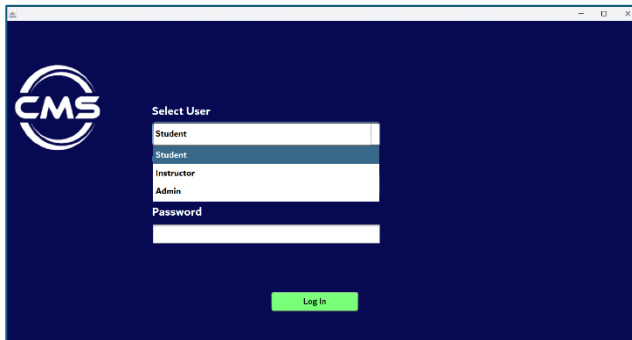
```

CREATE TABLE `Attendance`(
    `cms_id` CHAR(11) NOT NULL,
    `section_id` CHAR(1) NOT NULL,
    `course_id` VARCHAR(8) NOT NULL,
    `semester` INT UNSIGNED,
    `term` VARCHAR(6),
    `year` INT UNSIGNED,
    `ins_id` CHAR(8),
    `status` VARCHAR(7),
    `creation_date` DATE,
    PRIMARY KEY(`cms_id`, `section_id`, `course_id`, `semester`, `term`,
`year`, `creation_date`),
    FOREIGN KEY (`cms_id`, `section_id`, `course_id`, `semester`, `term`,
`year`)
        REFERENCES `Enrolled`(`cms_id`, `section_id`, `course_id`,
`semester`, `term`, `year`)
        ON UPDATE CASCADE,
    FOREIGN KEY (`ins_id`) REFERENCES `Sections`(`ins_id`) ON UPDATE
CASCADE
);

```

Below are the screenshots in the order as student login, instructor login and admin login.

Project Screenshots



CMS

Select User

Student

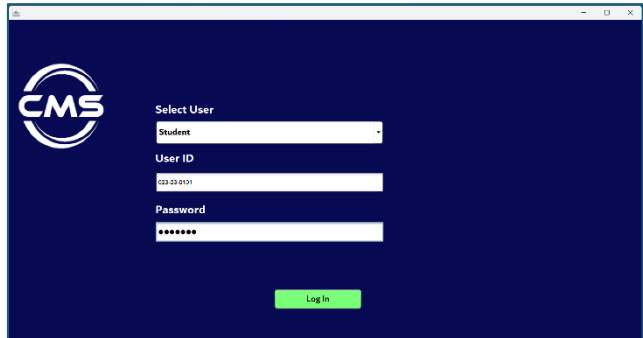
Student

Instructor

Admin

Password

Log In



CMS

Select User

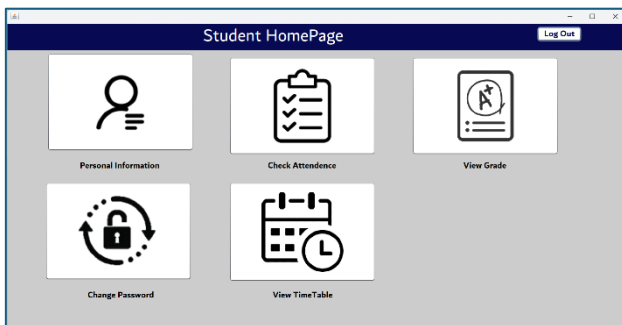
Student

User ID

223 22 9121

Password

Log In



Student Home Page

Log Out

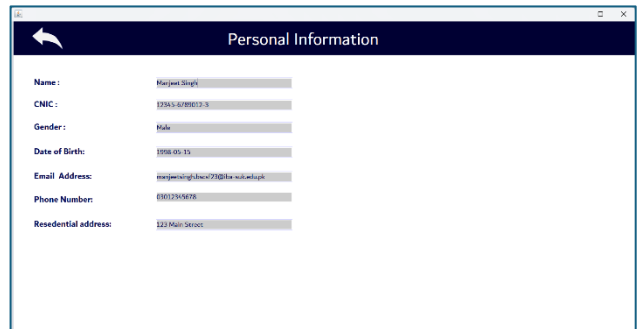
Personal Information

Check Attendance

View Grade

Change Password

View TimeTable



Personal Information

Name : Harjeet Singh

CNIC : 13845-8789617-3

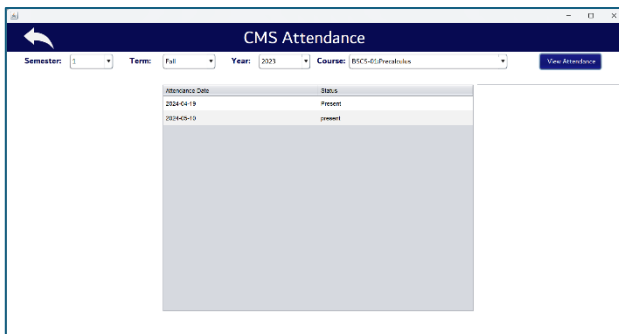
Gender : Male

Date of Birth : 1998-05-11

Email Address : harjeet Singh <730@live.ichalkalp>

Phone Number : 0807235678

Residential address : 123 Main Street



CMS Attendance

Semester: 1

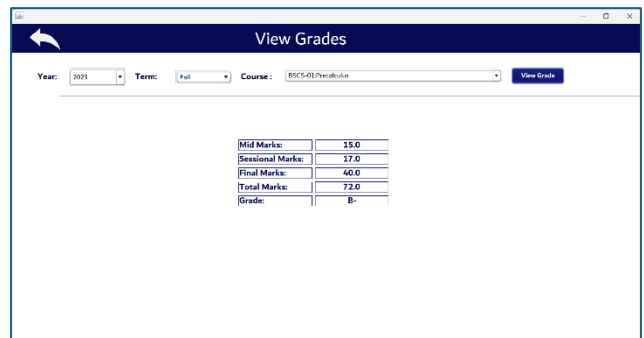
Term: Fall

Year: 2023

Course: BSCS-01/Pre calculus

View Attendance

Attendance Date	Status
2024-04-19	Present
2024-05-10	present



View Grades

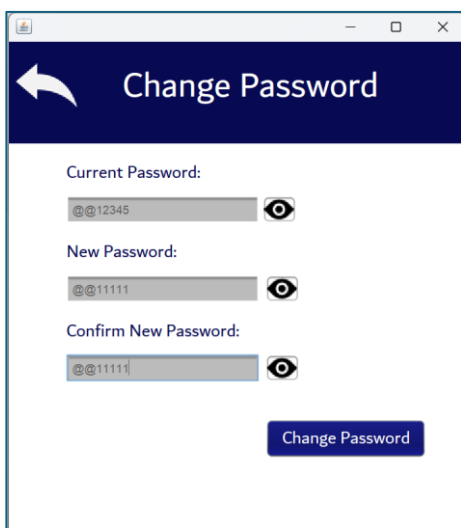
Year: 2023

Term: Fall

Course: BSCS-01/Pre calculus

View Grade

Mid Marks:	35.0
Sessional Marks:	17.0
Final Marks:	60.0
Total Marks:	72.0
Grade:	B-



Change Password

Current Password:

@@12345

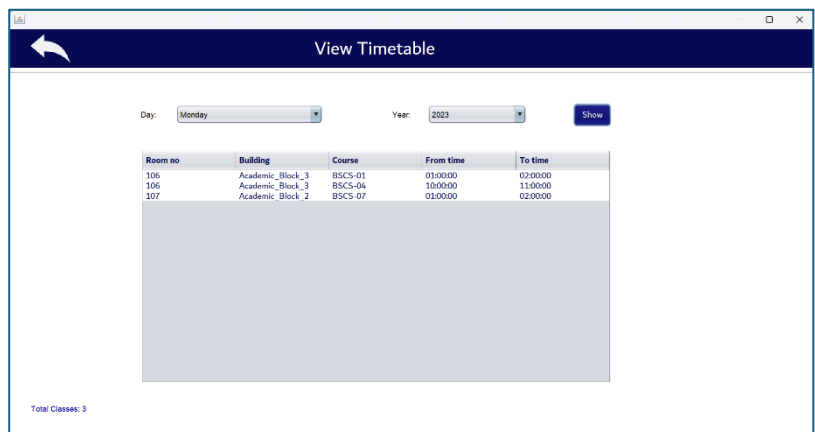
New Password:

@@11111

Confirm New Password:

@@11111

Change Password



View Timetable

Day: Monday

Year: 2023

Show

Room no	Building	Course	From time	To time
106	Academic_Block_3	BSCS-01	01:00:00	02:00:00
106	Academic_Block_3	BSCS-04	10:00:00	11:00:00
107	Academic_Block_2	BSCS-07	01:00:00	02:00:00

Total Classes: 3

The change password, personal information, and view timetable pages layout is same for the instructor as for the students; thus, these screenshots are not attached again for instructor.

Select User

Instructor

User ID

100-001

Password

Log In

Instructor HomePage

Log Out

Personal Information

Mark Attendance

Maintain Gradebook

Change Password

View TimeTable

Class Attendance

Semester: 1 Term: Fall Year: 2023 Course: DBA-01:Functional English

Date: 2024-09-01 Sections: A Mark Attendance

CMS_ID	Student_Name	Present	Absent Count
320-23-0229	Deepak Patel	<input checked="" type="checkbox"/>	2
320-23-0238	Ritu Kumari	<input checked="" type="checkbox"/>	1
320-23-0239	Aryan Verma	<input checked="" type="checkbox"/>	1
320-23-0247	Preeti Sharma	<input checked="" type="checkbox"/>	0
320-23-0250	Ravi Kumar	<input checked="" type="checkbox"/>	4
320-23-0251	Ravi Kumar	<input checked="" type="checkbox"/>	0
320-23-0254	Sachin Kumar	<input checked="" type="checkbox"/>	2
320-23-0256	Rahul Singh	<input checked="" type="checkbox"/>	0
320-23-0259	Karita Sharma	<input checked="" type="checkbox"/>	0
320-23-0260	Ajay Sharma	<input checked="" type="checkbox"/>	1

Save

Class Attendance

Semester: 1 Term: Fall Year: 2023 Course: DBA-01:Functional English

Date: 2024-09-01 Sections: A Mark Attendance

CMS_ID	Student_Name	Present	Absent Count
320-23-0229	Deepak Patel	<input checked="" type="checkbox"/>	2
320-23-0238	Ritu Kumari	<input checked="" type="checkbox"/>	1
320-23-0239	Aryan Verma	<input checked="" type="checkbox"/>	1
320-23-0247	Preeti Sharma	<input checked="" type="checkbox"/>	0
320-23-0250	Ravi Kumar	<input checked="" type="checkbox"/>	4
320-23-0251	Ravi Kumar	<input checked="" type="checkbox"/>	0
320-23-0254	Sachin Kumar	<input checked="" type="checkbox"/>	2
320-23-0256	Rahul Singh	<input checked="" type="checkbox"/>	1
320-23-0259	Karita Sharma	<input checked="" type="checkbox"/>	0
320-23-0260	Ajay Sharma	<input checked="" type="checkbox"/>	1

Save

Instructor Grades

Semester: 1 Term: Fall Year: 2023 Course: DBA-01:Functional English

Section: A Assign Grade

CMS-ID	Student Name	Mid-Marks	Sessional	Final-Marks
Deepak Patel	320-23-0229	22	11	20
Ritu Kumari	320-23-0238	25.4	15	45
Aryan Verma	320-23-0239	24	16	40
Preeti Sharma	320-23-0247	23	12	32
Ravi Kumar	320-23-0250	0	0	0
Ravi Kumar	320-23-0251	0	0	0
Sachin Kumar	320-23-0254	0	0	0
Rahul Singh	320-23-0256	0	0	0

Save Update

Grades updated successfully.

CMS

Select User

Admin

User ID

100-001

Password

Log In

Admin HomePage

Log Out

Add Student

Add Instructor

Add Course

Manage TimeTable

Add Section

Add Department

Add Student

CMS ID: 320-23-9998 Password: *****

Address: Street XYZ City: Sukkur Province: Sindh

First Name: Kartar Last Name: Singh Date of admission: 2023-05-16

CNIC: 66666-6666666-6 Date of birth: 2003-05-15

Gender: ☒ Male ☐ Female Semester: 1 Term: Fall

Email address: kartar.singh@bs-suk.edu.pk Department: BBA

Contact: 8888888888 Section: A

Clear Save View Data added successfully

View Student

Department: BBA Batch: 2023 View

CMS ID	Present	First Name	Last Name	CNIC	Date of B.	Gender	Email add.	Contact	President	City	Province	Date of ad.	Department	Semester	Section
320-23-0229	<input checked="" type="checkbox"/>	Deepak	Patel	32790-678-	1988-03-11	Male	deepakp@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	A
320-23-0238	<input checked="" type="checkbox"/>	Ritu	Kumari	32790-678-	1988-03-11	Female	ritukumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	A
320-23-0239	<input checked="" type="checkbox"/>	Aryan	Verma	32790-678-	1988-03-11	Male	aryanver@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	A
320-23-0247	<input checked="" type="checkbox"/>	Preeti	Sharma	32790-678-	1988-03-11	Female	preetishar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	A
320-23-0250	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	A
320-23-0251	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	A
320-23-0254	<input checked="" type="checkbox"/>	Sachin	Kumar	32790-678-	1988-03-11	Male	sachinkum@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	A
320-23-0256	<input checked="" type="checkbox"/>	Rahul	Singh	32790-678-	1988-03-11	Male	rahulsingh@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	A
320-23-0259	<input checked="" type="checkbox"/>	Karita	Sharma	32790-678-	1988-03-11	Female	karitashar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	A
320-23-0260	<input checked="" type="checkbox"/>	Ajay	Sharma	32790-678-	1988-03-11	Male	ajayshar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	A
320-23-0261	<input checked="" type="checkbox"/>	Ritu	Kumari	32790-678-	1988-03-11	Female	ritukumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	B
320-23-0262	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	B
320-23-0263	<input checked="" type="checkbox"/>	Sachin	Kumar	32790-678-	1988-03-11	Male	sachinkum@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	B
320-23-0264	<input checked="" type="checkbox"/>	Rahul	Singh	32790-678-	1988-03-11	Male	rahulsingh@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	B
320-23-0265	<input checked="" type="checkbox"/>	Karita	Sharma	32790-678-	1988-03-11	Female	karitashar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	B
320-23-0266	<input checked="" type="checkbox"/>	Ajay	Sharma	32790-678-	1988-03-11	Male	ajayshar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	B
320-23-0267	<input checked="" type="checkbox"/>	Ritu	Kumari	32790-678-	1988-03-11	Female	ritukumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0268	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0269	<input checked="" type="checkbox"/>	Sachin	Kumar	32790-678-	1988-03-11	Male	sachinkum@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0270	<input checked="" type="checkbox"/>	Rahul	Singh	32790-678-	1988-03-11	Male	rahulsingh@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0271	<input checked="" type="checkbox"/>	Karita	Sharma	32790-678-	1988-03-11	Female	karitashar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0272	<input checked="" type="checkbox"/>	Ajay	Sharma	32790-678-	1988-03-11	Male	ajayshar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0273	<input checked="" type="checkbox"/>	Ritu	Kumari	32790-678-	1988-03-11	Female	ritukumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0274	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0275	<input checked="" type="checkbox"/>	Sachin	Kumar	32790-678-	1988-03-11	Male	sachinkum@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0276	<input checked="" type="checkbox"/>	Rahul	Singh	32790-678-	1988-03-11	Male	rahulsingh@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0277	<input checked="" type="checkbox"/>	Karita	Sharma	32790-678-	1988-03-11	Female	karitashar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0278	<input checked="" type="checkbox"/>	Ajay	Sharma	32790-678-	1988-03-11	Male	ajayshar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0279	<input checked="" type="checkbox"/>	Ritu	Kumari	32790-678-	1988-03-11	Female	ritukumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0280	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0281	<input checked="" type="checkbox"/>	Sachin	Kumar	32790-678-	1988-03-11	Male	sachinkum@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0282	<input checked="" type="checkbox"/>	Rahul	Singh	32790-678-	1988-03-11	Male	rahulsingh@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0283	<input checked="" type="checkbox"/>	Karita	Sharma	32790-678-	1988-03-11	Female	karitashar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0284	<input checked="" type="checkbox"/>	Ajay	Sharma	32790-678-	1988-03-11	Male	ajayshar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0285	<input checked="" type="checkbox"/>	Ritu	Kumari	32790-678-	1988-03-11	Female	ritukumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0286	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0287	<input checked="" type="checkbox"/>	Sachin	Kumar	32790-678-	1988-03-11	Male	sachinkum@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0288	<input checked="" type="checkbox"/>	Rahul	Singh	32790-678-	1988-03-11	Male	rahulsingh@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0289	<input checked="" type="checkbox"/>	Karita	Sharma	32790-678-	1988-03-11	Female	karitashar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0290	<input checked="" type="checkbox"/>	Ajay	Sharma	32790-678-	1988-03-11	Male	ajayshar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0291	<input checked="" type="checkbox"/>	Ritu	Kumari	32790-678-	1988-03-11	Female	ritukumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0292	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0293	<input checked="" type="checkbox"/>	Sachin	Kumar	32790-678-	1988-03-11	Male	sachinkum@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0294	<input checked="" type="checkbox"/>	Rahul	Singh	32790-678-	1988-03-11	Male	rahulsingh@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0295	<input checked="" type="checkbox"/>	Karita	Sharma	32790-678-	1988-03-11	Female	karitashar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0296	<input checked="" type="checkbox"/>	Ajay	Sharma	32790-678-	1988-03-11	Male	ajayshar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0297	<input checked="" type="checkbox"/>	Ritu	Kumari	32790-678-	1988-03-11	Female	ritukumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0298	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0299	<input checked="" type="checkbox"/>	Sachin	Kumar	32790-678-	1988-03-11	Male	sachinkum@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0300	<input checked="" type="checkbox"/>	Rahul	Singh	32790-678-	1988-03-11	Male	rahulsingh@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0301	<input checked="" type="checkbox"/>	Karita	Sharma	32790-678-	1988-03-11	Female	karitashar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0302	<input checked="" type="checkbox"/>	Ajay	Sharma	32790-678-	1988-03-11	Male	ajayshar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0303	<input checked="" type="checkbox"/>	Ritu	Kumari	32790-678-	1988-03-11	Female	ritukumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0304	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0305	<input checked="" type="checkbox"/>	Sachin	Kumar	32790-678-	1988-03-11	Male	sachinkum@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0306	<input checked="" type="checkbox"/>	Rahul	Singh	32790-678-	1988-03-11	Male	rahulsingh@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0307	<input checked="" type="checkbox"/>	Karita	Sharma	32790-678-	1988-03-11	Female	karitashar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0308	<input checked="" type="checkbox"/>	Ajay	Sharma	32790-678-	1988-03-11	Male	ajayshar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0309	<input checked="" type="checkbox"/>	Ritu	Kumari	32790-678-	1988-03-11	Female	ritukumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0310	<input checked="" type="checkbox"/>	Ravi	Kumar	32790-678-	1988-03-11	Male	ravikumar@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0311	<input checked="" type="checkbox"/>	Sachin	Kumar	32790-678-	1988-03-11	Male	sachinkum@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0312	<input checked="" type="checkbox"/>	Rahul	Singh	32790-678-	1988-03-11	Male	rahulsingh@...	0223346-	906 Gul S.	Lahore	Punjab	2023-08-01	BBA	2	R
320-23-0313	<input checked="" type="checkbox"/>	Karita	Sharma	32790-678-	1988-03-11	Female									

View Instructor

Department:

INS ID	Password	First Name	Last Name	CNIC	Date of Bir.	Gender	Email add.	Contact	Residential	City	Province	Joining Date	Department
INS-002	@B212AS	All	Khan	35202-2345	1995-03-22	Male	ali.khan@B21212AS	0312123456	Furqan Bld.	Karachi	Sindh	2023-08-08	BSCS
INS-007	@B121AS	Sana	Hussain	35107-1890	1998-01-14	Female	sana.hussain	0317189012	Street 456	Karachi	Sindh	2023-08-01	BSCS
INS-013	@B121AS	Sana	Malik	35121-7890	1997-09-12	Female	sana.malik	0319012345	Apartment 1	Islamabad	Punjab	2023-08-05	BSCS
INS-017	@B121AS	Sara	Rahim	35127-7890	1998-06-20	Female	sara.rahim	0307078901	Apartment 1	Lahore	Punjab	2023-08-05	BSCS
INS-021	@B121AS	Saima	Malik	35227-1234	1998-01-30	Female	saima.malik	0312123456	House 234	Islamabad	Punjab	2023-08-07	BSCS
INS-037	@B121AS	Adeel	Khan	35371-7890	1996-09-17	Male	adeel.khan	0305198765	Apartment 1	Islamabad	Punjab	2023-08-01	BSCS
INS-036	@B121AS	Zainab	Malik	35294-5678	1999-11-10	Female	zainab.malik	0306098765	House 123	Lahore	Punjab	2023-08-09	BSCS
INS-035	@B121AS	Sara	Khan	35236-6789	1998-06-37	Female	sara.khan	0313578901	House 123	Lahore	Punjab	2023-08-10	BSCS
INS-045	@B121AS	Aadia	Ahmad	35245-1098	1996-02-03	Female	adia.ahmad	0301209876	Flat 489	Rawalpindi	Punjab	2023-08-04	BSCS
INS-049	@B121AS	Aqsa	Khattak	35264-9012	1995-09-12	Female	aqsa.khattak	0319091234	Plot 478	Karachi	Sindh	2023-08-04	BSCS
INS-051	@B121AS	Shen Mulla	Ejaz	35385-1890	1997-05-26	Male	shenmulla	0333333333	Sakur Bld.	Sukkur	Sindh	2024-05-08	BSCS
INS-008	@B121AS	Shamshad	Latif	35191-5678	2024-05-04	Female	shamshad	0989898989	intersector	कराچي	Sindh	2024-05-10	BSCS
INS-999	@B121AS	Korran	Rafiq	45109-9912	2024-05-03	Female	korran.korran	0345678901	#####	نہي	Sindh	2024-05-08	BSCS

Add Course

id	name	dep_id	credit_hours	semester
BEEE-11	Computer Aided Design	BEEE	3	2
BEEE-12	Linear Circuit Analysis (Theory)	BEEE	1	2
BEEE-13	Linear Circuit Analysis (Lab)	BEEE	1	2
BEEE-14	Matrix Studies	BEEE	2	2
BEEE-15	Linear Algebra and Differential	BEEE	3	2
BEEE-16	Communication and Presentation Skills	BEEE	1	2
BSCS-01	Procalculus	BSCS	0	1
BSCS-02	Introduction to Information and Commu.	BSCS	1	1
BSCS-03	Introduction to Information and Commu.	BSCS	1	1
BSCS-04	Programming Fundamentals (Theory)	BSCS	3	1
BSCS-05	Programming Fundamentals (Lab)	BSCS	1	1
BSCS-06	Maths Studies	BSCS	2	1
BSCS-07	English Composition and Comprehension	BSCS	1	1
BSCS-08	Public Relations	BSCS	2	1
BSCS-09	ethics	BSCS	2	1
BSCS-10	Object Oriented Programming (Theory)	BSCS	1	2
BSCS-11	Object Oriented Programming (Lab)	BSCS	1	2
BSCS-12	Calculus and Analytical Geometry	BSCS	3	2
BSCS-13	Communication and Presentation Skills	BSCS	1	2
BSCS-14	Structure Structures	BSCS	3	2
BSCS-15	Applied Physics (Theory)	BSCS	3	2
BSCS-16	Applied Physics (Lab)	BSCS	1	2
BSCS-17	Organizational Behavior	BSCS	3	3
BSCS-18	multi	BSCS	3	3
BSCS-19	Operating Systems	BSCS	3	3

View Class Status

Monday

Room no	Building	From time	To time
301	Academic_Build_1	09:00:00	10:00:00
301	Academic_Build_2	10:00:00	11:00:00
301	Academic_Build_3	11:00:00	12:00:00
301	Academic_Build_4	12:00:00	02:00:00
301	Academic_Build_5	02:00:00	03:00:00
301	Academic_Build_6	03:00:00	04:00:00
302	Academic_Build_1	09:00:00	10:00:00
302	Academic_Build_2	10:00:00	11:00:00
302	Academic_Build_3	11:00:00	12:00:00
302	Academic_Build_4	12:00:00	02:00:00
302	Academic_Build_5	02:00:00	03:00:00
302	Academic_Build_6	03:00:00	04:00:00
303	Academic_Build_1	09:00:00	10:00:00
303	Academic_Build_2	10:00:00	11:00:00
303	Academic_Build_3	11:00:00	12:00:00
303	Academic_Build_4	12:00:00	02:00:00
303	Academic_Build_5	02:00:00	03:00:00
303	Academic_Build_6	03:00:00	04:00:00

Sections set successfully

Section_id	course_id	semester	Term	year	Day
A	BEE-01	1	Fall	2023	Monday
A	BEE-02	1	Fall	2023	Monday
R	BEE-03	1	Fall	2023	Monday
R	BEE-04	1	Fall	2023	Monday
R	BEE-05	1	Fall	2023	Monday
R	BEE-06	1	Fall	2023	Monday
B	BEE-07	1	Fall	2023	Monday
B	BEE-08	1	Fall	2023	Monday
B	BEE-09	1	Fall	2023	Monday
A	BEE-10	1	Fall	2023	Monday
A	BEE-11	1	Fall	2023	Monday
A	BEE-12	1	Fall	2023	Monday
A	BEE-13	1	Fall	2023	Monday
A	BEE-14	1	Fall	2023	Monday
A	BEE-15	1	Fall	2023	Monday
A	BEE-16	1	Fall	2023	Monday
A	BEE-17	1	Fall	2023	Monday
A	BEE-18	1	Fall	2023	Monday
A	BEE-19	1	Fall	2023	Monday
A	BEE-20	1	Fall	2023	Monday

Manage Sections

Department: Year: Term: Semester:

Select Section:

Select Course:

Select Instructor:

Added Successfully

section	Course ID	Instructor ID
A	BSCS-01	INS-002
A	BSCS-02	INS-007
A	BSCS-03	INS-007
A	BSCS-04	INS-013
A	BSCS-05	INS-013
A	BSCS-06	INS-017
A	BSCS-07	INS-021
A	BSCS-08	INS-021
A	BSCS-09	INS-027
A	BSCS-10	INS-027
A	BSCS-11	INS-032
B	BSCS-12	INS-032
B	BSCS-13	INS-037
B	BSCS-14	INS-013
B	BSCS-15	INS-013
B	BSCS-16	INS-017
B	BSCS-17	INS-021
B	BSCS-18	INS-021
B	BSCS-19	INS-027
C	BSCS-20	INS-007
D	BSCS-01	INS-007
E	BSCS-11	INS-013
F	BSCS-01	INS-017

Add Department

id	name	Hod
B.Ed	Education	INS-015
BBA	Business Administration	INS-001
BECSE	Computer Systems Engineering	INS-012
BEEE	Electrical Engineering	INS-004
BMEE	Mathematics	INS-009
BSCS	Computer Science	INS-002
BSMC	Media and Communication	INS-007

The change password page is same for the admin as for the student and for the instructor, thus the screenshot is not attached.

Major Outcomes

The major outcomes of implementing a content management system can have far-reaching benefits for educational institutions, students, teachers, administrators, and other stakeholders. Here are some of the key outcomes:

1. Reduced Administrative Workload
2. Always up-to-date information (leading to better decision making)
3. Increased Accessibility for Students, teachers, and administrators
4. Enhanced Student Experience
5. Enhanced Teacher Experience
6. Enhanced Administrator Experience
7. Better Resource Utilization of campus facilities (resulting in cost-saving and improved efficiency)
8. Increased Institutional Reputation

Conclusion

In conclusion, this desktop application is going to be very helpful for the users; Admins, Teachers, and Students, as it provides a simple user experience and is based on the principles of Object-Oriented Programming. The project will assist users in making calculations, managing time, and handling data.