

ONLINE COURSE REGISTRATION

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CS/SE 6314.002
FINAL PROJECT

Foreword

This project was a combined effort of ours and we are glad to present it to everyone.

UT Course Registration is our interpretation of how an Online Course Registration Website might look like. The Website consists of everything one would expect in a real-world Course Registration Website such as enrollment section, shopping cart, registration section etc.

We would like to thank everyone who supported us and our special thanks to Dr. Nurcan Yuruk, for guiding us for this project. Her helpful tips and suggestions have enabled us to develop an effective project.

Thank you, and we hope you like it.

Regards,

Deba, Arth, Devanshu

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Description of our Website

We have designed and developed an online course registration website which is like the E-learning and Coursebook portals of our university.

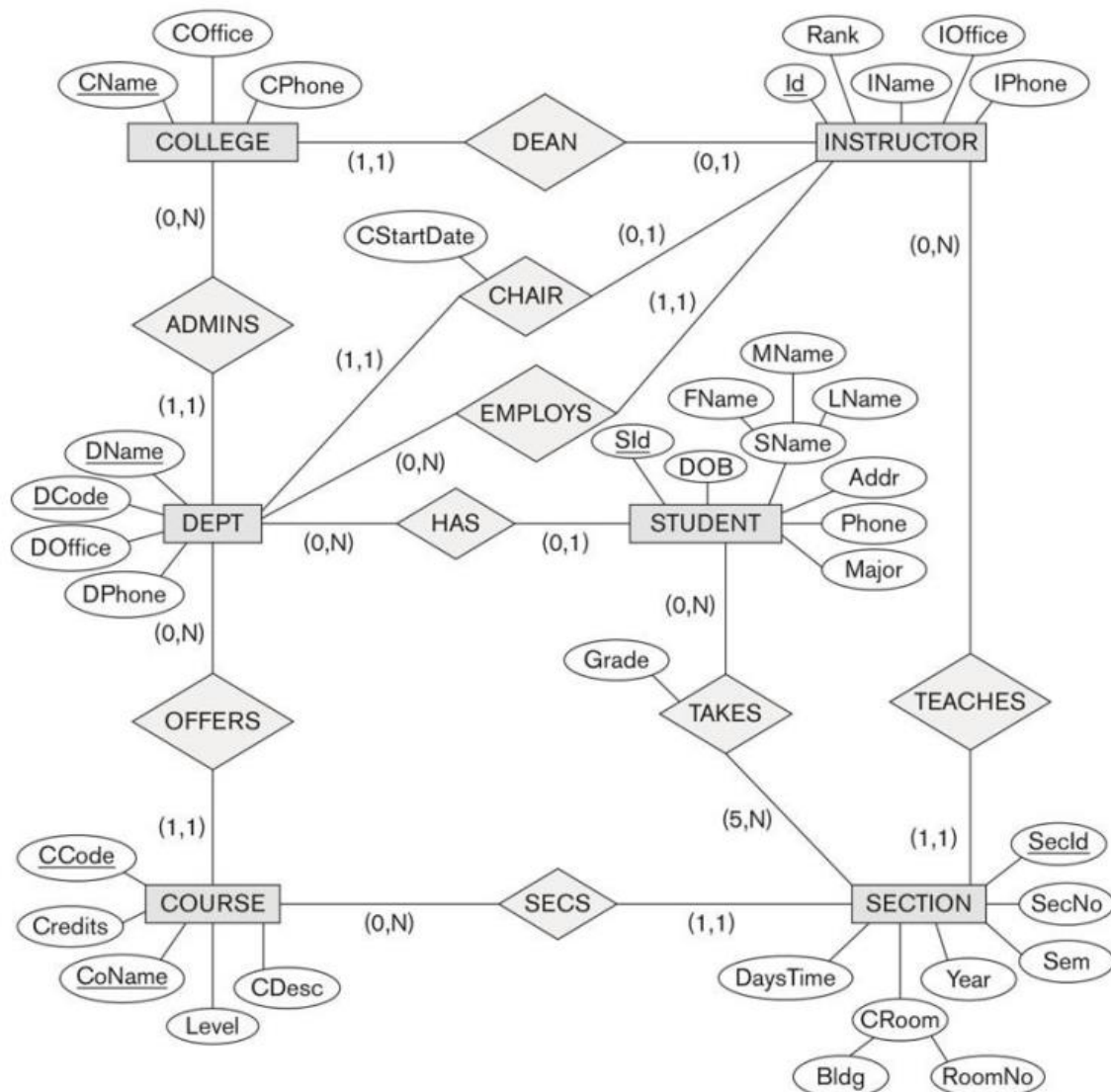
Our website provides the following functionalities:

- User can enroll for classes.
- User can drop/remove classes
- User can search for classes based on the variety of search filters like course name, college, department, course, section.
- The website also provides the functionality for an admin to use the website.
- The admin can create new users (normal users or an admin), add a user to a class, update the information of different users like their grades, department etc.
- The User cannot login or register on the website without meeting some specific validation criteria.
- The website provides the functionality of a shopping cart so that users can add/drop courses from the cart.

Assumptions

- The user cannot register for the course is already enrolled.
- The user can only register for classes which offered in that semester.
- A course can be offered under different sections by the same professor.
- One course can be offered by multiple professors in the same semester.

ER Diagram



SQL Statements to create Relations in DB and Add Constraints

```
CREATE TABLE IF NOT EXISTS `cart` (  
  `SID` varchar(11) NOT NULL,  
  `SecId` varchar(11) NOT NULL,  
  `Deleted` char(1) NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE IF NOT EXISTS `college` (  
  `CName` varchar(20) NOT NULL,  
  `COffice` varchar(20) NOT NULL,  
  `DeanId` varchar(20) DEFAULT NULL,  
  `Deleted` char(1) NOT NULL DEFAULT 'N'  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE IF NOT EXISTS `collegephone` (  
  `CName` varchar(20) NOT NULL DEFAULT "",  
  `CPhone` varchar(20) NOT NULL DEFAULT "",  
  `Deleted` char(1) NOT NULL DEFAULT 'N'  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE IF NOT EXISTS `course` (  
  `CoCode` int(5) NOT NULL DEFAULT '0',  
  `CoName` varchar(20) DEFAULT NULL,  
  `Credits` int(2) NOT NULL,  
  `Level` varchar(20) NOT NULL,  
  `CoDescription` varchar(30) NOT NULL,  
  `CoDCode` int(5) DEFAULT NULL,  
  `Deleted` char(1) NOT NULL DEFAULT 'N'  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE IF NOT EXISTS `department` (  
  `DCode` int(5) NOT NULL DEFAULT '0',  
  `DName` varchar(20) DEFAULT NULL,  
  `DOffice` varchar(20) NOT NULL,  
  `DeptChairID` varchar(20) DEFAULT NULL,  
  `CName` varchar(20) DEFAULT NULL,  
  `Deleted` char(1) NOT NULL DEFAULT 'N'  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE IF NOT EXISTS `deptphone` (  
  `DCode` int(5) NOT NULL DEFAULT '0',  
  `DeptPhone` varchar(20) NOT NULL DEFAULT '',  
  `Deleted` char(1) NOT NULL DEFAULT 'N'  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE IF NOT EXISTS `instrphone` (  
  `ID` varchar(20) NOT NULL DEFAULT '',  
  `IPhone` varchar(20) NOT NULL DEFAULT '',  
  `Deleted` char(1) NOT NULL DEFAULT 'N'  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE IF NOT EXISTS `instructor` (  
  `ID` varchar(20) NOT NULL DEFAULT '',  
  `Rank` varchar(20) NOT NULL,  
  `IName` varchar(20) DEFAULT NULL,  
  `IOffice` varchar(20) NOT NULL,  
  `DCode` int(5) DEFAULT NULL,  
  `Deleted` char(1) DEFAULT 'N'  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE IF NOT EXISTS `logindetail` (  
  `username` varchar(100) NOT NULL,  
  `email` varchar(100) NOT NULL,  
  `user_type` varchar(100) NOT NULL,  
  `password` varchar(100) NOT NULL,  
  `SID` varchar(20) DEFAULT NULL,  
  `Deleted` char(1) NOT NULL DEFAULT 'N'  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE IF NOT EXISTS `section` (  
  `SecId` varchar(20) NOT NULL DEFAULT "",  
  `SecNo` varchar(3) DEFAULT NULL,  
  `Sem` int(2) NOT NULL,  
  `OpenClosed` char(1) DEFAULT 'N',  
  `Year` year(4) NOT NULL,  
  `RoomNo` varchar(10) NOT NULL,  
  `Building` varchar(20) NOT NULL,  
  `DaysTime` varchar(20) NOT NULL,  
  `InstructorID` varchar(20) DEFAULT NULL,  
  `CoCode` int(5) DEFAULT NULL,  
  `SectionLimit` int(3) DEFAULT NULL,  
  `MaxCapacity` int(3) NOT NULL,  
  `Deleted` char(1) NOT NULL DEFAULT 'N'  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE IF NOT EXISTS `student` (  
  `SID` varchar(20) NOT NULL DEFAULT "",  
  `DOB` date NOT NULL,
```



```

`SFname` varchar(20) DEFAULT NULL,
`SMname` varchar(20) NOT NULL,
`SLname` varchar(20) DEFAULT NULL,
`Address` varchar(30) NOT NULL,
`Major` varchar(20) DEFAULT NULL,
`DCode` int(5) DEFAULT NULL,
`Deleted` char(1) NOT NULL DEFAULT 'N'
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

```

```

CREATE TABLE IF NOT EXISTS `studentphone` (
  `SID` varchar(20) NOT NULL DEFAULT "",
  `SPhone` varchar(20) NOT NULL DEFAULT "",
  `Deleted` char(1) NOT NULL DEFAULT 'N'
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

```

```

CREATE TABLE IF NOT EXISTS `takes` (
  `SID` varchar(20) NOT NULL DEFAULT "",
  `SecID` varchar(20) NOT NULL DEFAULT "",
  `Grade` varchar(2) DEFAULT NULL,
  `Deleted` char(1) NOT NULL DEFAULT 'N'
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

```

```

ALTER TABLE `cart`
  ADD PRIMARY KEY (`SID`,`SecId`),
  ADD KEY `SID_FK` (`SID`),
  ADD KEY `SecId_FK` (`SecId`);

```

```

ALTER TABLE `college`
  ADD PRIMARY KEY (`CName`),
  ADD KEY `DeanId` (`DeanId`);

```

```
ALTER TABLE `collegephone`  
  ADD PRIMARY KEY (`CName`,`CPhone`);
```

```
ALTER TABLE `course`  
  ADD PRIMARY KEY (`CoCode`),  
  ADD KEY `CoDCode` (`CoDCode`);
```

```
ALTER TABLE `department`  
  ADD PRIMARY KEY (`DCode`),  
  ADD UNIQUE KEY `DName` (`DName`),  
  ADD KEY `DeptChairID` (`DeptChairID`,`CName`),  
  ADD KEY `FK_CName` (`CName`);
```

```
ALTER TABLE `deptphone`  
  ADD PRIMARY KEY (`DCode`,`DeptPhone`);
```

```
ALTER TABLE `instrphone`  
  ADD PRIMARY KEY (`ID`,`IPhone`);
```

```
ALTER TABLE `instructor`  
  ADD PRIMARY KEY (`ID`),  
  ADD KEY `DCode` (`DCode`);
```

```
ALTER TABLE `logindetail`  
  ADD PRIMARY KEY (`username`),  
  ADD UNIQUE KEY `email` (`email`),  
  ADD KEY `FK_SID_login` (`SID`);
```

```
ALTER TABLE `section`  
  ADD PRIMARY KEY (`SecId`),  
  ADD KEY `InstructorID` (`InstructorID`,`CoCode`),
```

```
ADD KEY `FK_CoCode` (`CoCode`);
```

```
ALTER TABLE `student`  
  ADD PRIMARY KEY (`SID`),  
  ADD KEY `DCode` (`DCode`);
```

```
ALTER TABLE `studentphone`  
  ADD PRIMARY KEY (`SID`,`SPhone`);
```

```
ALTER TABLE `takes`  
  ADD PRIMARY KEY (`SID`,`SecID`),  
  ADD KEY `FK_SecID` (`SecID`);
```

```
ALTER TABLE `cart`  
  ADD CONSTRAINT `SID_FK` FOREIGN KEY (`SID`) REFERENCES `student` (`SID`) ON  
  UPDATE CASCADE,  
  ADD CONSTRAINT `SecId_FK` FOREIGN KEY (`SecId`) REFERENCES `section` (`SecId`)  
  ON UPDATE CASCADE;
```

```
ALTER TABLE `college`  
  ADD CONSTRAINT `FK_DeainID` FOREIGN KEY (`DeainId`) REFERENCES `instructor` (`ID`)  
  ON UPDATE CASCADE;
```

```
ALTER TABLE `collegephone`  
  ADD CONSTRAINT `FK_CollegePhone` FOREIGN KEY (`CName`) REFERENCES `college`  
  (`CName`) ON UPDATE CASCADE;
```

```
ALTER TABLE `course`  
  ADD CONSTRAINT `FK_CoDeptCode` FOREIGN KEY (`CoDCode`) REFERENCES  
  `department` (`DCode`) ON DELETE SET NULL ON UPDATE CASCADE;
```

```
ALTER TABLE `department`
```

```
ADD CONSTRAINT `FK_CName` FOREIGN KEY (`CName`) REFERENCES `college`  
(`CName`) ON UPDATE CASCADE,
```

```
ADD CONSTRAINT `FK_DeptChairID` FOREIGN KEY (`DeptChairID`) REFERENCES  
`instructor` (`ID`) ON UPDATE CASCADE;
```

```
ALTER TABLE `deptphone`
```

```
ADD CONSTRAINT `FK_DeptPhone` FOREIGN KEY (`DCode`) REFERENCES `department`  
(`DCode`) ON UPDATE CASCADE;
```

```
ALTER TABLE `instrphone`
```

```
ADD CONSTRAINT `FK_InstrPhone` FOREIGN KEY (`ID`) REFERENCES `instructor` (`ID`)  
ON UPDATE CASCADE;
```

```
ALTER TABLE `instructor`
```

```
ADD CONSTRAINT `FK_IDCode` FOREIGN KEY (`DCode`) REFERENCES `department`  
(`DCode`) ON UPDATE CASCADE;
```

```
ALTER TABLE `logindetail`
```

```
ADD CONSTRAINT `FK_SID_login` FOREIGN KEY (`SID`) REFERENCES `student` (`SID`)  
ON UPDATE CASCADE;
```

```
ALTER TABLE `section`
```

```
ADD CONSTRAINT `FK_CoCode` FOREIGN KEY (`CoCode`) REFERENCES `course`  
(`CoCode`) ON UPDATE CASCADE,
```

```
ADD CONSTRAINT `FK_InstrID` FOREIGN KEY (`InstructorID`) REFERENCES `instructor`  
(`ID`) ON DELETE SET NULL ON UPDATE CASCADE;
```

```
ALTER TABLE `student`
```

```
ADD CONSTRAINT `FK_DeptCode` FOREIGN KEY (`DCode`) REFERENCES `department`  
(`DCode`) ON DELETE SET NULL ON UPDATE CASCADE;
```

```
ALTER TABLE `studentphone`
```

```
ADD CONSTRAINT `FK_StudentPhone` FOREIGN KEY (`SID`) REFERENCES `student`  
(`SID`) ON UPDATE CASCADE;
```

```
ALTER TABLE `takes`  
  ADD CONSTRAINT `FK_SID` FOREIGN KEY (`SID`) REFERENCES `student` (`SID`) ON  
  UPDATE CASCADE,  
  ADD CONSTRAINT `FK_SecID` FOREIGN KEY (`SecID`) REFERENCES `section` (`SecID`)   
  ON UPDATE CASCADE;
```

Languages/Frameworks

Frontend

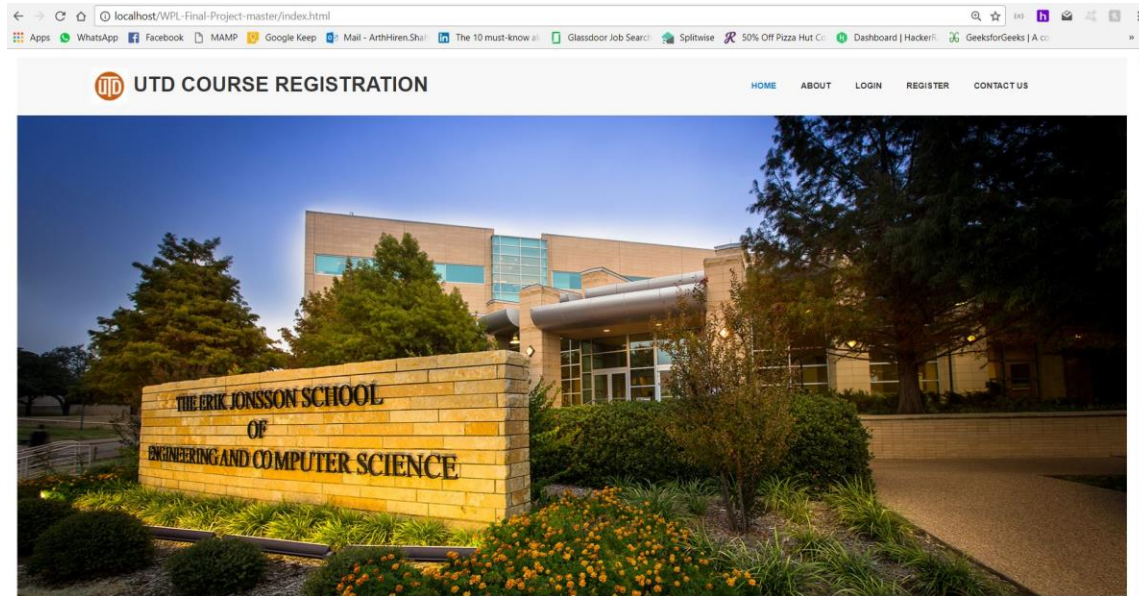
- Language: HTML5, CSS3, JQUERY, JAVASCRIPT
- Framework: Bootstrap
- Editor: Visual Studio Code

Backend

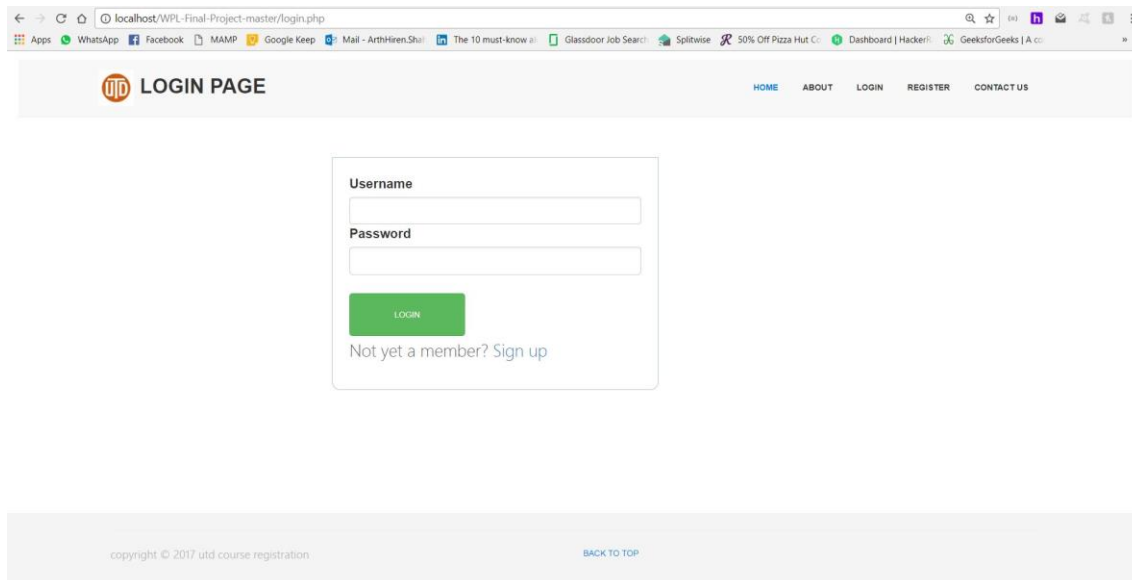
- Language: PHP, MYSQL, AJAX
- Framework: MAMP-PHPMYADMIN
- Editor: Visual Studio Code

Screenshots of the website

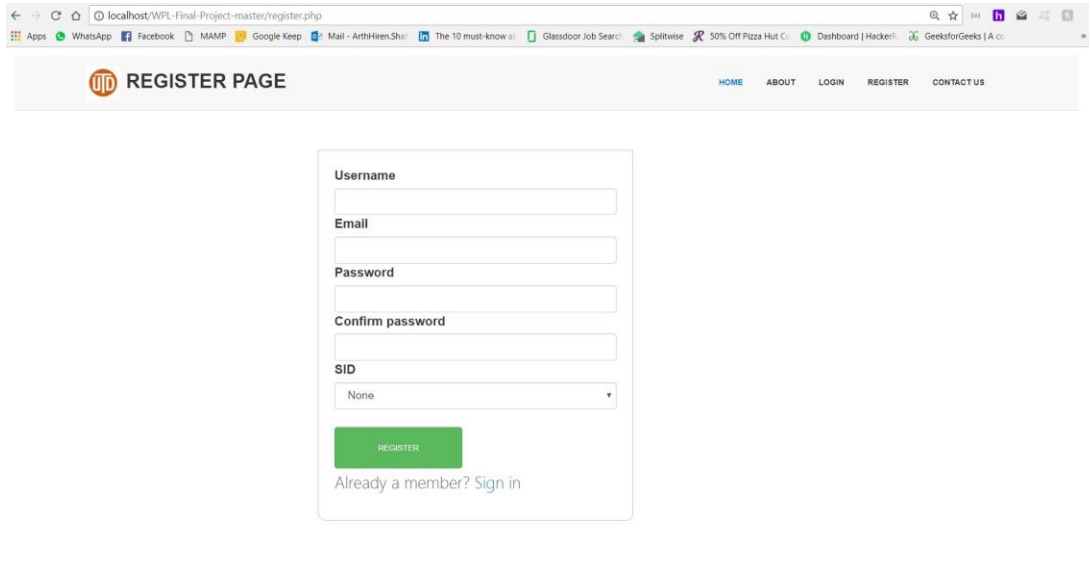
1. Homepage



2. Login Page

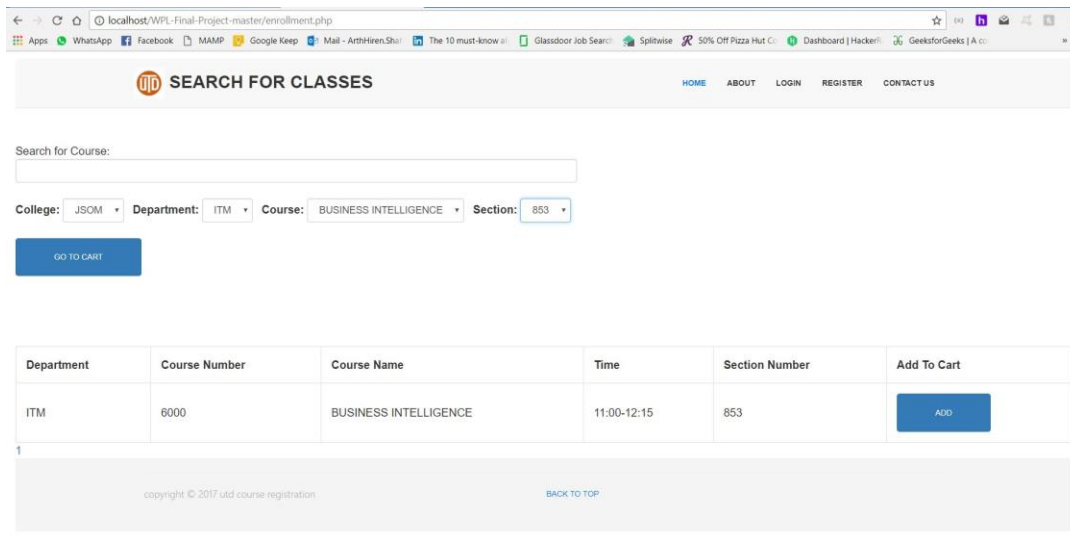


3. Register Page



The screenshot shows a web browser at the URL `localhost/WPL-Final-Project-master/register.php`. The page has a header with the logo and navigation links: HOME, ABOUT, LOGIN, REGISTER, and CONTACT US. The main content area contains a registration form with the following fields: Username, Email, Password, Confirm password, and SID (a dropdown menu currently set to 'None'). A green 'REGISTER' button is at the bottom of the form, followed by the text 'Already a member? Sign in'.

4. Search Page



The screenshot shows a web browser at the URL `localhost/WPL-Final-Project-master/enrollment.php`. The page has a header with the logo and navigation links: HOME, ABOUT, LOGIN, REGISTER, and CONTACT US. The main content area is titled 'SEARCH FOR CLASSES'. It features a search bar labeled 'Search for Course:'. Below the search bar, there are dropdown menus for 'College' (set to 'JSOM'), 'Department' (set to 'ITM'), 'Course' (set to 'BUSINESS INTELLIGENCE'), and 'Section' (set to '853'). A blue 'GO TO CART' button is positioned below these filters. Below the filters, there is a table with the following data:

Department	Course Number	Course Name	Time	Section Number	Add To Cart
ITM	6000	BUSINESS INTELLIGENCE	11:00-12:15	853	<button>ADD</button>

At the bottom of the page, there is a footer with the text 'copyright © 2017 uvd course registration' and a link 'BACK TO TOP'.

5. Cart

The screenshot shows a web browser window with the URL `localhost/WPL-Final-Project-master/cart.php`. The page has a header with the logo and navigation links: HOME, ABOUT, LOGIN, REGISTER, CONTACT US. Below the header is a table with the following data:

Department	Course Number	Course Name	Time	Section Number	Remove
ARTS	6326	HUMANITIES	10:00-11:15	872	<button>REMOVE</button>

Below the table are two buttons: ENROLL and SEARCH FOR CLASSES.

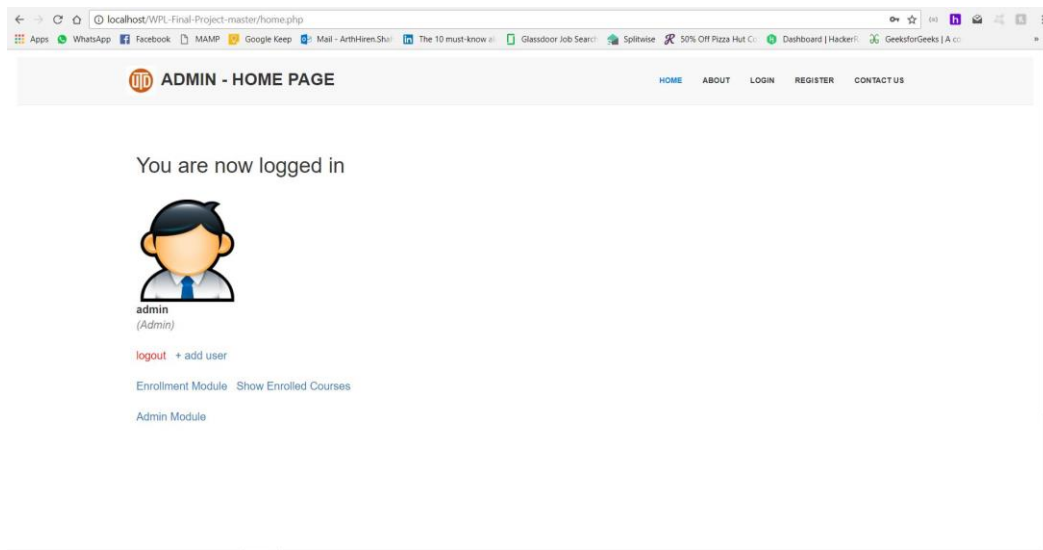
6. Enrolled Courses

The screenshot shows a web browser window with the URL `localhost/WPL-Final-Project-master/showEnrollmentHistory.php`. The page has a header with the logo and navigation links: HOME, ABOUT, LOGIN, REGISTER, CONTACT US. Below the header is a table with the following data:

Department	Course Number	Course Name	Time	Section Number	Grade
COMPUTER SCIENCE	6389	ARTIFICIAL INTELLIGENCE	1:00-2:15	863	N/A
ARTS	6326	HUMANITIES	10:00-11:15	872	N/A

Below the table is a button: BACK TO MAIN.

7. Admin Page



ADMIN PAGE													
SecId	SecNo	Sem	OpenClosed	Year	RoomNo	Building	DaysTime	InstructorID	CoCode	SectionLimit	MaxCapacity	Deleted	Delete
2000	863	1	Y	2017	400	ECSS	1:00-2:15	1001	2	48	50	N	DELETE
2001	851	1	Y	2017	401	ECSN	11:00-12:15	1002	2	1	5	N	DELETE
2002	858	2	N	2018	402	JSOM1	1:00-2:15	1003	3	22	22	N	DELETE
2003	853	2	N	2017	403	JSOM2	11:00-12:15	1004	4	100	100	N	DELETE
2004	872	2	Y	2018	404	ATEC	10:00-11:15	1005	5	58	60	N	DELETE

1 2 3 4 5 6 7

ADD A NEW ENTRY

Contributions of Team Members

Arth Shah	Devanshu Sheth	Deba Imade
<ul style="list-style-type: none">• Login.php• Register.php• Functions.php• Home.php• Main.php• Contact.php• Main.css• Main.js• Index.php• Create_User.php• Report.docx	<ul style="list-style-type: none">• Course.php• about.html• deleteEntry.php• fillformOnUpdate.php• getPrimesfromTable.php• getTableDetails.php• getTableInfo.php• handleDropdown.php• setSession.php• addEntry.php• showHistory.php• updateEntry.php• courseregistration.sql	<ul style="list-style-type: none">• Cart.php• enroll.php• enrollment.php• getCartEntries.php• getDepartments.php• getCourseTableEntries.php• getSections.php• getDepartments.php

Roles of Team Members

1. Arth Shah
 - a. Responsible for login section and register section.
 - b. Responsible for making a design template for the website.
 - c. Responsible for adding server-side validation with PHP.
 - d. Responsible for making report.
2. Devanshu Sheth
 - a. Managed resources and assigned roles to all team members.
 - b. Responsible for making the admin module.
 - c. Responsible for adding the front-end template to all web pages.
 - d. Responsible for adding client-side validation using JQuery.
 - e. Responsible for adding images to users.
 - f. Responsible for paging and history of class enrolled for in website.
3. Deba Imade *(had lesser pages but had entire enrollment, search for classes and cart sections to make up for it.)*
 - a. Responsible for making the enrollment section.
 - b. Responsible for making the cart section.
 - c. Responsible for the search for classes section.
 - d. Responsible for adding search and filter functionalities.

All team members looked for bugs and refactored code to optimize functionality.