

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.

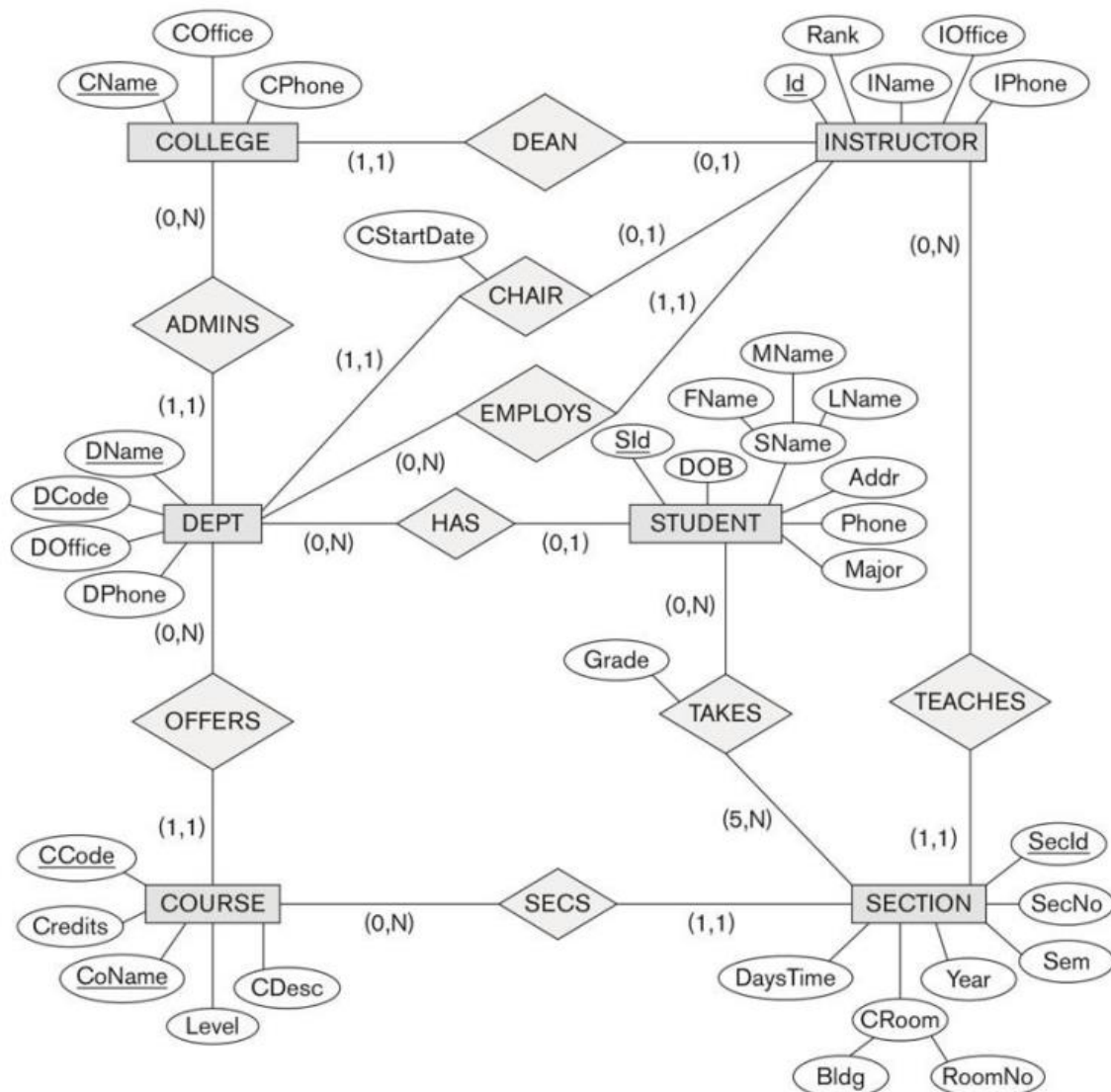
Our website provides the following functionalities:

- 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

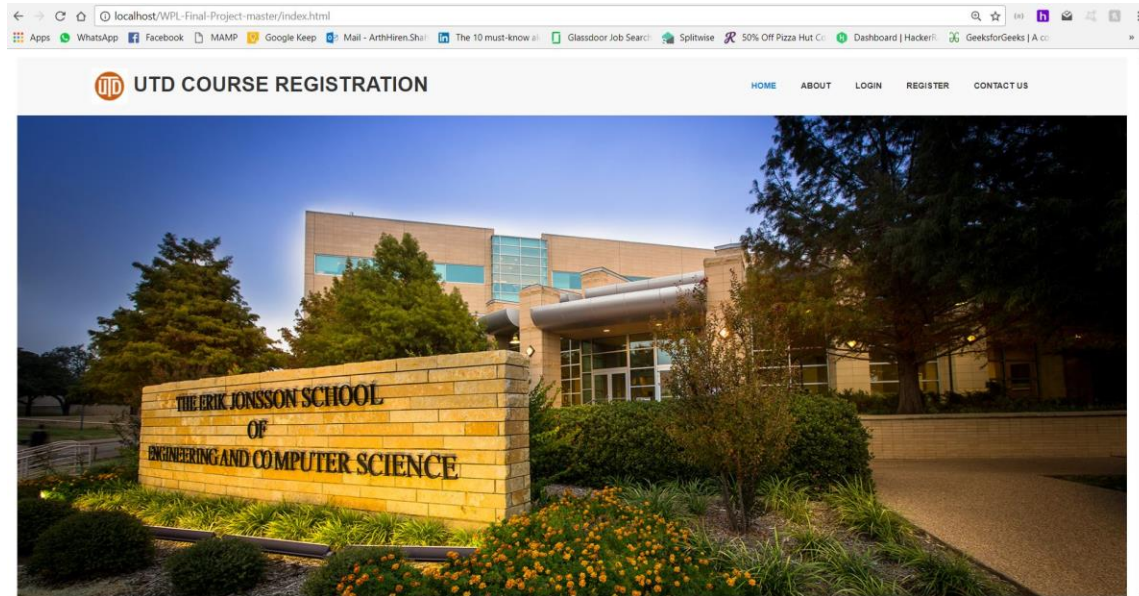
- Language: HTML5, CSS3, JQUERY, JAVASCRIPT
- Framework: Bootstrap
- Editor: Visual Studio Code

Backend

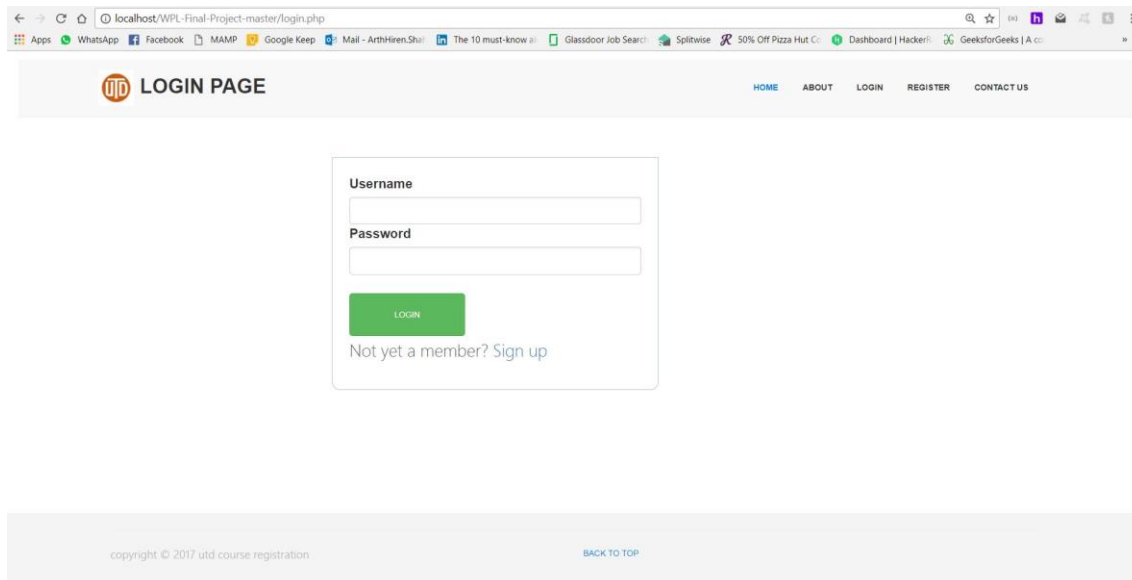
- Language: PHP, MYSQL, AJAX
- Framework: MAMP-PHPMYADMIN
- Editor: Visual Studio Code

Screenshots of the website

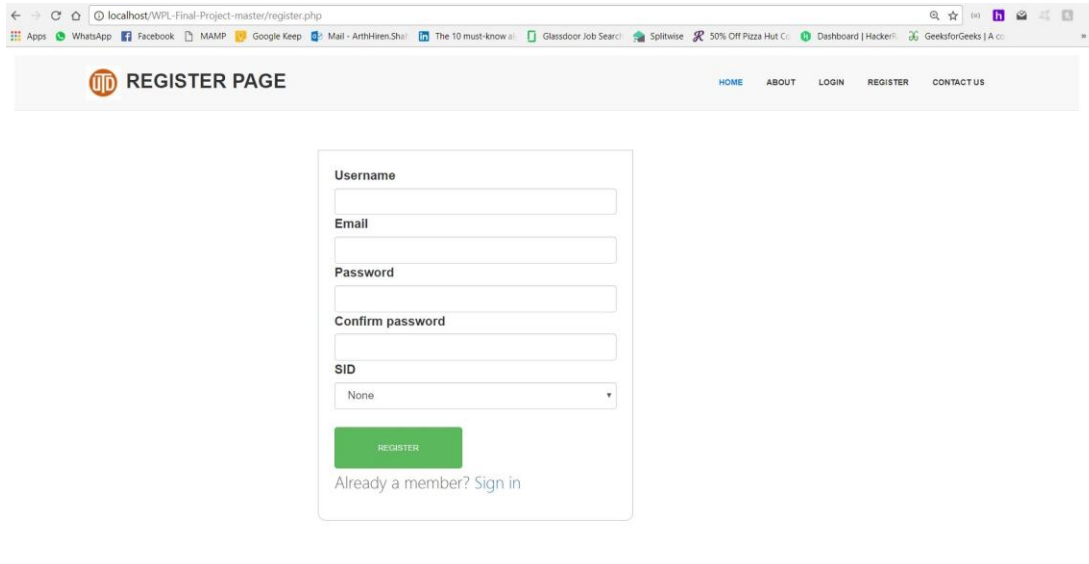
1. Homepage



2. Login Page

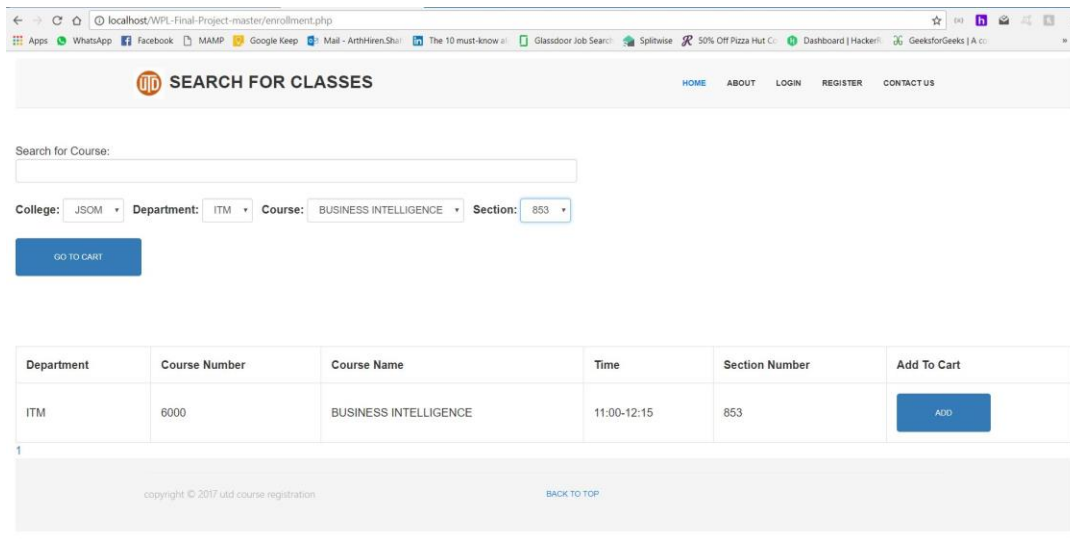


3. Register Page



The screenshot shows a web browser at the URL `localhost/WPL-Final-Project-master/register.php`. The page has a header with a logo and the text "REGISTER PAGE", and a navigation menu with 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"). Below the form is a green "REGISTER" button and a link that says "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 a logo and the text "SEARCH FOR CLASSES", and a navigation menu with links: HOME, ABOUT, LOGIN, REGISTER, and CONTACT US. The main content area features a search form with a "Search for Course:" input field. Below this 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 the dropdowns. A table displays the search results:

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

Below the table, there is a footer area with the text "copyright © 2017 ucd 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	REMOVE

Below the table are two buttons: [ENROLL](#) and [SEARCH FOR CLASSES](#).

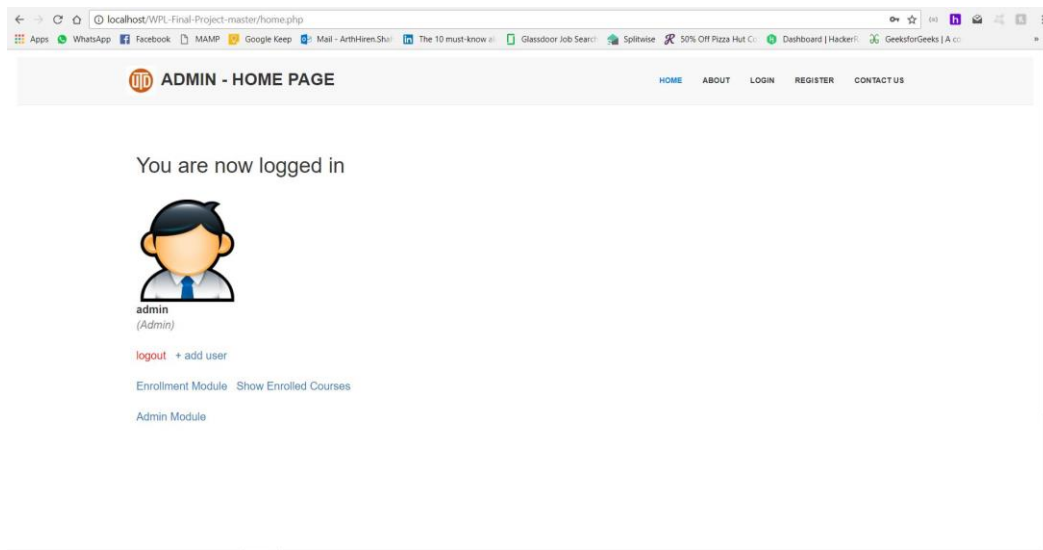
6. Enrolled Courses

The screenshot shows a web browser window with the URL `localhost/WPL-Final-Project-master/showHistory.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