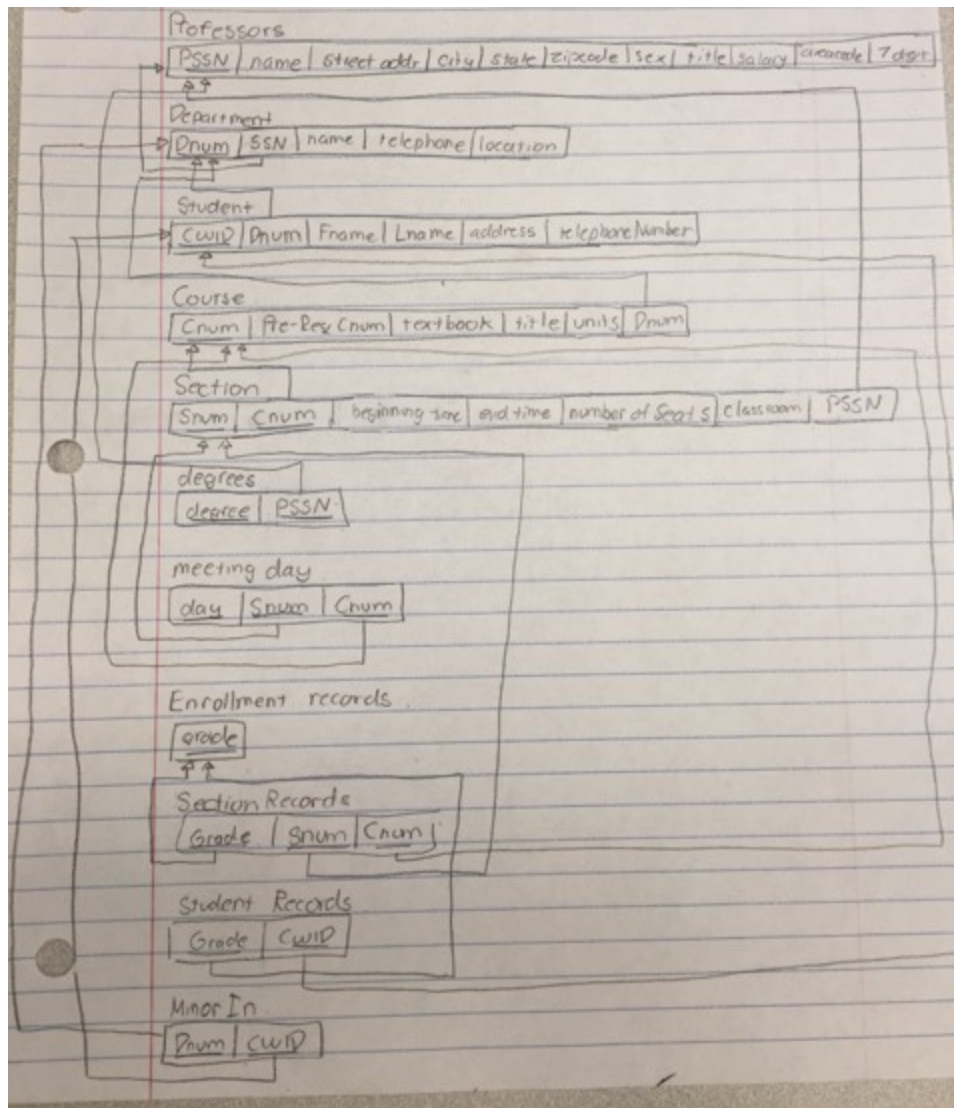


2. Corresponding Relational Model



3. Source Code of project, including DDL that created tables and SQL to implement queries

Index.php (Homepage)

```
<html lang="en" class="csstransforms csstransforms3d csstransitions">
<head>
<link rel="apple-touch-icon" sizes="76x76"
href="https://upload.wikimedia.org/wikipedia/commons/d/d5/Wikipedia_edu_computer.png">
    <link rel="icon" type="image/png"
href="https://upload.wikimedia.org/wikipedia/commons/d/d5/Wikipedia_edu_computer.png">

<link href="http://maxcdn.bootstrapcdn.com/font-awesome/4.4.0/css/font-awesome.min.css"
rel="stylesheet">
    <link href='https://fonts.googleapis.com/css?family=Grand+Hotel|Open+Sans:400,300'
rel='stylesheet' type='text/css'>
    <!-- CSS Files -->
    <link href="css/bootstrap.css" rel="stylesheet" />
    <link href="css/style.css" rel="stylesheet"/>
    <link href="css/font-awesome.min.css" rel="stylesheet" />

<script
src="https://cdn.rawgit.com/google/code-prettify/master/loader/run_prettify.js"></script>
</head>
<title>CPSC332</title>
<div class="navbar navbar-default navbar-fixed-top" role="navigation">
    <div class="container">
        <div class="navbar-header">
            <button type="button" class="navbar-toggle" data-toggle="collapse"
data-target=".navbar-collapse">
                <span class="sr-only">Toggle navigation</span>
                <span class="icon-bar"></span>
                <span class="icon-bar"></span>
                <span class="icon-bar"></span>
            </button>
            <a class="navbar-brand" href="index.php">CPSC332 Final Project</a>
        </div>
        <div class="navbar-collapse collapse navbar-right">
            <ul class="nav navbar-nav">
                <li class="active"><a href="index.php">HOME</a></li>
                <li><a href="students.php">Students</a></li>
                <li><a href="professors.php">Professors</a></li>
            </ul>
        </div><!--/.nav-collapse -->
    </div>
```

```

    </div>
<div id="headerwrap" style="min-height:50px">
    <div class="container">
        <div class="row">
            <div class="col-xs-8 col-xs-offset-2">

<BR><BR>

                                <h3>CPSC 332 Project</h3>
                                <h1>University Database</h1>
                                <h5>Please click on the links above or below to access the
database.</h5>
<BR><BR>

                                </div>
                            </div><!-- /row -->
                        </div> <!-- /container -->
                    </div>
<div class="wrapper">
<div class="container">
<div class="col-lg-6">
<h4>Click on Professors to take you to a page where ...</h4>
<p>inputting their SSN you can view ...</p>
<ul style="margin-left:30px">
<li>List of Titles</li>
<li>Classrooms</li>
<li>Meeting Days</li>
<li>Time of his/her classes</li>
</ul>
<p>inputting a course number and a section number you can view ...</p>
<ul style="margin-left:30px">
<li>count how many students get each distinct grade, A+, A, A-, B, etc</li>
</ul>
<p><br><a href="professors.php" class="btn btn-theme">Professors</a></p>
</div>

<div class="col-lg-6">
<h4>Click on Students to take you to a page where ...</h4>
<p>inputting their CWID you can view ...</p>
<ul style="margin-left:30px">
<li>List of all courses the student took</li>
<li>Grades</li>
</ul>
<p>inputting a course number you can view ...</p>
<ul style="margin-left:30px">
<li>List of sections of the course including the classrooms, meeting days, and the time</li>

```

```
<li>Number of students enrolled in each section</li>
</ul>
<p><br><a href="students.php" class="btn btn-theme">Students</a></p>
</div>
</div>
</div>
</html>
```

```
<div id="footerwrap">
<div class="container">
<div class="col-xs-4">
<h4>Created By</h4>
<div class="hline-w"></div>
<p>Navie Vurdien, Natalie Ang, David Tran</p>
</div>
</div>
</div>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.0/jquery.min.js"></script>
<script src="js/bootstrap.min.js"></script>
<script src="js/retina-1.1.0.js"></script>
<script src="js/jquery.hoverdir.js"></script>
<script src="js/jquery.hoverex.min.js"></script>
<script src="js/jquery.prettyPhoto.js"></script>
<script src="js/jquery.isotope.min.js"></script>
<script src="js/custom.js"></script>
```

Professor.php

```
<html lang="en" class="csstransforms csstransforms3d csstransitions">
<head>
    <link rel="apple-touch-icon" sizes="76x76"
href="https://upload.wikimedia.org/wikipedia/commons/d/d5/Wikipedia_edu_computer.png">
    <link rel="icon" type="image/png"
href="https://upload.wikimedia.org/wikipedia/commons/d/d5/Wikipedia_edu_computer.png">

<link href="http://maxcdn.bootstrapcdn.com/font-awesome/4.4.0/css/font-awesome.min.css"
rel="stylesheet">
    <link href='https://fonts.googleapis.com/css?family=Grand+Hotel|Open+Sans:400,300'
rel='stylesheet' type='text/css'>
    <!-- CSS Files -->
    <link href="css/bootstrap.css" rel="stylesheet" />
    <link href="css/style.css" rel="stylesheet"/>
    <link href="css/font-awesome.min.css" rel="stylesheet" />

    <script
src="https://cdn.rawgit.com/google/code-prettify/master/loader/run_prettify.js"></script>
</head>
<title>Professors</title>
<div class="navbar navbar-default navbar-fixed-top" role="navigation">
    <div class="container">
        <div class="navbar-header">
            <button type="button" class="navbar-toggle" data-toggle="collapse"
data-target=".navbar-collapse">
                <span class="sr-only">Toggle navigation</span>
                <span class="icon-bar"></span>
                <span class="icon-bar"></span>
                <span class="icon-bar"></span>
            </button>
            <a class="navbar-brand" href="index.php">CPSC332 Final Project</a>
        </div>
        <div class="navbar-collapse collapse navbar-right">
            <ul class="nav navbar-nav">
                <li><a href="index.php">HOME</a></li>
                <li><a href="students.php">Students</a></li>
                <li class="active"><a href="professors.php">Professors</a></li>
            </ul>
        </div><!--/.nav-collapse -->
    </div>
</div>
<div id="blue" style="min-height:50px" style="text-align:left">
```

```
<h3 style="">Professors</h3>
</div>
```

```
<div class="wrapper">
<div class="container">
<div class="col-xs-6 col-xs-offset-3">
```

```
<form role="form" method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
<div class="form-group">
<center><label for="InputName1" style="font-size:24px">SSN</label><BR>
<input type="text" class="form-control" placeholder="Social Security Number" name="sn"
value="<?php echo $ssn;?>" required><span class="error" style="color:red">* <?php echo
$ssnErr;?></span>
<BR><input type="submit" class="btn btn-theme" name="ssn_but" value="Submit"> </center>
</div>
```

```
</form>
```

```
<BR><BR>
```

```
<form role="form" method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
<center><h1 style="font-size:24px">Course and Section Number</h1></center>
<div class="form-group" style="margin-left:100px">
<label for="InputName2">Course Number</label><BR>
<input type="text" class="form-control" placeholder="Course Number" name="course"
value="<?php echo $cnum;?>" required><span class="error" style="color:red">* <?php echo
$cnumErr;?></span>
</div>
```

```
<div class="form-group" style="margin-left:100px">
```

```
<label for="InputName3">Section Number</label><BR>
```

```
<input type="text" class="form-control" name="section" placeholder="Section Number"
value="<?php echo $snum;?>" required><span class="error" style="color:red">* <?php echo
$snumErr;?></span>
```

```
<BR>
```

```
</div>
```

```
<center><input type="submit" class="btn btn-theme" name="cosec_but" value="Submit">
```

```
</center>
```

```
</form>
```

```
</div>
```

```

<?php
// define variables and set to empty values

function test_input($data)
{
    $data = trim($data);
    $data = stripslashes($data);
    $data = htmlspecialchars($data);
    return $data;
}
//var_dump($_POST);

if (isset($_POST["ssn_but"]) && empty($_POST["sn"])){
    echo "<font color=red>SSN is required</font>";
}
elseif(isset($_POST["ssn_but"]) && !empty($_POST["sn"])){
    $ssn = test_input($_POST["sn"]);
    if (!preg_match("/^[0-9 ]*$/",$ssn)) {
        echo "<font color=red>Only numbers allowed for SSN</font>";
    }
    else{
        $servername = "ecsmysql";
        $username = "cs332s28";
        $password = "kohxeobe";
        $dbname = "cs332s28";

        // Create connection
        $conn = new mysqli($servername, $username, $password, $dbname);
        // Check connection
        if ($conn->connect_error) {
            die("Connection failed: " . $conn->connect_error);
        }
        //SELECT C.cnum, S.cnum, C.title, S.room, S.meeting, S.beg_time, S.end_time, S.pssn FROM
        Professor P, Section S, Course C WHERE P.ssn = $ssn AND S.pssn = P.ssn AND C.cnum =
        S.cnum
        //;

        $sql = "SELECT C.cnum, S.cnum, C.title, S.room, S.meeting, S.beg_time, S.end_time,
        S.pssn FROM Professor P, Section S, Course C WHERE P.ssn = $ssn AND S.pssn = P.ssn
        AND C.cnum = S.cnum";
        $result = mysqli_query($conn, $sql);
        echo "<div class='col-xs-12' style='right:15px'><small><h2
        style='text-align:left'><BR><BR>Results for SSN ". $ssn .":</small></h2></div>";
        if (mysqli_num_rows($result) > 0) {

```



```

        // output data of each row
        echo "<BR><BR><table class='table table-hover'>";
        echo "<thead><tr><th>Course Title</th><th>Classroom</th><th>Meeting
Days</th><th>Start Time</th><th>End Time</th></tr></thead>"; //header
        while($row = mysqli_fetch_assoc($result)) {
            $btime = date('g:ia', strtotime($row["beg_time"]));
            $etime = date('g:ia', strtotime($row["end_time"]));
            echo "<tbody><tr><td>" . $row["title"] . "</td><td>" . $row["room"] . "</td><td>" .
$row["meeting"] . "</td><td>" . $btime . "</td><td>" . $etime . "</td></tr>";
        }
        echo "</table>";
    }
    else {
        echo "<div class='col-xs-6'><p style='text-align:right'><BR><BR>No results
found</p></div>";
    }
    mysqli_close($conn);
}
}

```

```

if (isset($_POST["cosec_but"]) && (empty($_POST["course"]) || empty($_POST["section"]))) {
    echo "<BR><BR><BR><BR><BR><BR><BR><BR><BR><font color=red>Course &
Section Number are required</font>";
}
elseif(isset($_POST["cosec_but"]) && !empty($_POST["course"]) &&
!empty($_POST["section"])) {
    $cnum = $_POST["course"];
    $snum = $_POST["section"];
    if (!preg_match("/^[0-9 ]*$/", $cnum) && !preg_match("/^[0-9 ]*$/", $snum)) {
        echo "<BR><BR><BR><BR><BR><BR><BR><BR><BR><BR><font color=red>Only
numbers allowed for Course & Section Number</font>";
    }
    else {
        $servername = "ecsmysql";
        $username = "cs332s28";
        $password = "kohxeobe";
        $dbname = "cs332s28";

        // Create connection
        $conn = new mysqli($servername, $username, $password, $dbname);
        // Check connection
        if ($conn->connect_error) {

```

```

        die("Connection failed: " . $conn->connect_error);
    }
    $sql = "SELECT R.grade, R.cnum, R.snum, S.cnum, S.snum, COUNT(R.grade) FROM
Section S, Record R WHERE R.cnum = $cnum AND R.snum = $snum AND S.snum = R.snum
AND S.cnum = R.cnum GROUP BY (R.grade)";
    $result = mysqli_query($conn, $sql);
    echo "<div class='col-xs-12' style='right:15px'><small><h2
style='text-align:left'><BR><BR>Results for Course ". $cnum . " - 0". $snum
.":</small></h2></div>";
    if (mysqli_num_rows($result) > 0) {
        // output data of each row
        echo "<BR><BR><table class='table table-hover'>";
        echo "<thead><tr><th>Grade</th><th>Quantity</th></tr></thead>"; //header
        while($row = mysqli_fetch_assoc($result)) {
            echo "<tbody><tr><td>". $row["grade"] . "</td><td>". $row["COUNT(R.grade)]" .
"</td></tr>";
        }
        echo "</table>";
    }
    else {
        echo "<div class='col-xs-6'><p style='text-align:right'><BR><BR>No results
found</p></div>";
    }
    mysqli_close($conn);
}
}

```

?>

</div>

</div>

<div id="footerwrap">

<div class="container">

<div class="col-xs-4">

<h4>Created By</h4>

<div class="hline-w"></div>

<p>Navie Vurdien, Natalie Ang, David Tran</p>

</div>

</div>

</div>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.0/jquery.min.js"></script>

<script src="js/bootstrap.min.js"></script>

<script src="js/retina-1.1.0.js"></script>

<script src="js/jquery.hoverdir.js"></script>

<script src="js/jquery.hoverex.min.js"></script>

<script src="js/jquery.prettyPhoto.js"></script>

<script src="js/jquery.isotope.min.js"></script>

<script src="js/custom.js"></script>

Students.php

```
<html lang="en" class="csstransforms csstransforms3d csstransitions">
<head>
<link rel="apple-touch-icon" sizes="76x76"
href="https://upload.wikimedia.org/wikipedia/commons/d/d5/Wikipedia_edu_computer.png">
    <link rel="icon" type="image/png"
href="https://upload.wikimedia.org/wikipedia/commons/d/d5/Wikipedia_edu_computer.png">

<link href="http://maxcdn.bootstrapcdn.com/font-awesome/4.4.0/css/font-awesome.min.css"
rel="stylesheet">
    <link href='https://fonts.googleapis.com/css?family=Grand+Hotel|Open+Sans:400,300'
rel='stylesheet' type='text/css'>
    <!-- CSS Files -->
    <link href="css/bootstrap.css" rel="stylesheet" />
    <link href="css/style.css" rel="stylesheet"/>
    <link href="css/font-awesome.min.css" rel="stylesheet" />

    <script
src="https://cdn.rawgit.com/google/code-prettify/master/loader/run_prettify.js"></script>
</head>
<title>Students</title>
<div class="navbar navbar-default navbar-fixed-top" role="navigation">
    <div class="container">
        <div class="navbar-header">
            <button type="button" class="navbar-toggle" data-toggle="collapse"
data-target=".navbar-collapse">
                <span class="sr-only">Toggle navigation</span>
                <span class="icon-bar"></span>
                <span class="icon-bar"></span>
                <span class="icon-bar"></span>
            </button>
            <a class="navbar-brand" href="index.php">CPSC332 Final Project</a>
        </div>
        <div class="navbar-collapse collapse navbar-right">
            <ul class="nav navbar-nav">
                <li><a href="index.php">HOME</a></li>
                <li class="active"><a href="students.php">Students</a></li>
                <li><a href="professors.php">Professors</a></li>
            </ul>
        </div><!--/.nav-collapse -->
    </div>
</div>
<div id="blue" style="min-height:50px" style="text-align:left">
```

```
<h3 style="">Students</h3>
</div>
```

```
<div class="wrapper">
<div class="container">
<div class="col-xs-6 col-xs-offset-3">
```

```
<form action="students.php" role="form" method="POST">
<div class="form-group">
<center><label for="InputName1" style="font-size:24px">CWID</label><BR>
<input type="text" class="form-control" name="id" placeholder="Campus-Wide ID"
value="<?php echo $cwid;?>" required><span class="error" style="color:red">*</span>
<BR><input type="submit" class="btn btn-theme" name="cwid_but" value="Submit"> </center>
</div>
```

```
</form>
```

```
<BR><BR>
```

```
<form action="students.php" role="form" method="POST">
<div class="form-group">
<center><label for="InputName2" style="font-size:24px">Course Number</label><BR>
<center><input type="text" class="form-control" name="course" placeholder="Course Number"
value="<?php echo $cnum;?>" required><span class="error" style="color:red">*</span>
<BR><input type="submit" class="btn btn-theme" name="course_but" value="Submit">
</center>
```

```
</div>
```

```
</form>
```

```
</div>
```

```
<?php
```

```
// define variables and set to empty values
```

```
function test_input($data)
{
    $data = trim($data);
    $data = stripslashes($data);
    $data = htmlspecialchars($data);
    return $data;
}
```

```
if (isset($_POST["cwid_but"]) && empty($_POST["id"])){
    echo "<font color=red>CWID is required</font>";
```

```

}
elseif(isset($_POST["cwid_but"]) && !empty($_POST["id"])){
    $cwid = test_input($_POST["id"]);
    if (!preg_match("/^[0-9 ]*$/", $cwid)) {
        echo "<font color=red>Only numbers allowed for CWID</font>";
    }
    else{
        $servername = "ecsmysql";
        $username = "cs332s28";
        $password = "kohxeobe";
        $dbname = "cs332s28";

        // Create connection
        $conn = new mysqli($servername, $username, $password, $dbname);
        // Check connection
        if ($conn->connect_error) {
            die("Connection failed: " . $conn->connect_error);
        }
        $sql = "SELECT R.cwid, R.cnum, C.cnum, R.grade, C.title FROM Record R, Course C
WHERE R.cwid = $cwid AND R.cnum = C.cnum";
        $result = mysqli_query($conn, $sql);
        echo "<div class='col-xs-12' style='right:15px'><small><h2
style='text-align:left'><BR><BR>Results for CWID ". $cwid .":</small></h2></div>";
        if (mysqli_num_rows($result) > 0) {
            // output data of each row
            echo "<BR><BR><table class='table table-hover'>";
            echo "<thead><tr><th>Course Title</th><th>Grade</th></tr></thead>"; //header
            while($row = mysqli_fetch_assoc($result)) {
                echo "<tbody><tr><td>". $row["title"] . "</td><td>". $row["grade"] . "</td></tr>";
            }
            echo "</table>";
        }
        else {
            echo "<div class='col-xs-6'><p style='text-align:right'><BR><BR>No results
found</p></div>";
        }
        mysqli_close($conn);
    }
}

if (isset($_POST["course_but"]) && empty($_POST["course"])){
    echo "<BR><BR><BR><BR><BR><BR><BR><BR><BR><font color=red>Course
Number is required</font>";
}

```

```

}
elseif(isset($_POST["course_but"]) && !empty($_POST["course"])){
    $cnum = test_input($_POST["course"]);
    if (!preg_match("/^[0-9 ]*$/", $cnum)) {
        echo "<BR><BR><BR><BR><BR><BR><BR><BR><BR><BR><font color=red>Only
numbers allowed for Course Number</font>";
    }
    else{
        $servername = "ecsmysql";
        $username = "cs332s28";
        $password = "kohxeobe";
        $dbname = "cs332s28";

        // Create connection
        $conn = new mysqli($servername, $username, $password, $dbname);
        // Check connection
        if ($conn->connect_error) {
            die("Connection failed: " . $conn->connect_error);
        }
        $sql = "SELECT C.cnum, S.cnum, S.snum, C.title, S.room, S.meeting, S.beg_time,
S.end_time, R.cnum, R.snum, COUNT(R.snum) FROM Course C, Section S, Record R
WHERE C.cnum = $cnum AND C.cnum = S.cnum AND R.cnum=S.cnum AND R.snum =
S.snum GROUP BY (R.snum)";
        $result = mysqli_query($conn, $sql);
        echo "<div class='col-xs-12' style='right:15px'><small><h2
style='text-align:left'><BR><BR>Results for Course ". $cnum .":</small></h2></div>";
        if (mysqli_num_rows($result) > 0) {
            // output data of each row
            echo "<BR><BR><table class='table table-hover'>";
            echo "<thead><tr><th>Section</th><th>Classroom</th><th>Meeting
Days</th><th>Beginning Time</th><th>End Time</th><th>Number
Enrolled</th></tr></thead>"; //header
            while($row = mysqli_fetch_assoc($result)) {
                $btime = date('g:ia', strtotime($row["beg_time"]));
                $etime = date('g:ia', strtotime($row["end_time"]));
                echo "<tbody><tr><td>". $row["snum"] . "</td><td>". $row["room"] . "</td><td>".
$row["meeting"] . "</td><td>". $btime . "</td><td>". $etime . "</td><td>".
$row["COUNT(R.snum)] . "</td></tr>";
            }
            echo "</table>";
        }
    }
    else {

```

```

        echo "<div class='col-xs-6'><p style='text-align:right'><BR><BR>No results
found</p></div>";
    }
    mysqli_close($conn);
}
}

?>
</div>

</div>

```

```

<div id="footerwrap">
<div class="container">
<div class="col-xs-4">
<h4>Created By</h4>
<div class="hline-w"></div>
<p>Navie Vurdien, Natalie Ang, David Tran</p>
</div>
</div>
</div>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.0/jquery.min.js"></script>
<script src="js/bootstrap.min.js"></script>
<script src="js/retina-1.1.0.js"></script>
<script src="js/jquery.hoverdir.js"></script>
<script src="js/jquery.hoverex.min.js"></script>
<script src="js/jquery.prettyPhoto.js"></script>
<script src="js/jquery.isotope.min.js"></script>
<script src="js/custom.js"></script>

```


Insert Text

```
CREATE TABLE Professor(  
    ssn VARCHAR(9) PRIMARY KEY,  
    name VARCHAR(100),  
    street VARCHAR(50),  
    city VARCHAR(50),  
    state VARCHAR(2),  
    zip VARCHAR(5),  
    area_code VARCHAR(3),  
    7_digit VARCHAR(7),  
    sex CHAR (1),  
    title VARCHAR(50),  
    salary FLOAT(10)  
);
```

```
CREATE TABLE Department(  
    dnum VARCHAR(10) PRIMARY KEY,  
    name VARCHAR(50),  
    telephone VARCHAR(10),  
    location VARCHAR(50),  
    chairssn VARCHAR(9),  
    FOREIGN KEY (chairssn) REFERENCES Professor (ssn)  
);
```

```
CREATE TABLE Course(  
    cnum VARCHAR(10) PRIMARY KEY,  
    title VARCHAR(50),  
    textbook VARCHAR(50),  
    units INTEGER,  
    prereqnum VARCHAR(10),  
    FOREIGN KEY (prereqnum) REFERENCES Course(cnum)  
);
```

```
CREATE TABLE Section(  
    snum VARCHAR(10),  
    cnum VARCHAR(10),  
    room VARCHAR(10),  
    meeting VARCHAR(7),  
    beg_time TIME,  
    end_time TIME,  
    num_seats INTEGER,  
    pssn VARCHAR(9),  
    PRIMARY KEY (snum,cnum),
```

```
FOREIGN KEY (cnum) REFERENCES Course(cnum),  
FOREIGN KEY (pssn) REFERENCES Professor(ssn)  
);
```

```
CREATE TABLE Student(  
    cwid VARCHAR(9) PRIMARY KEY,  
    fname VARCHAR(50),  
    lname VARCHAR(50),  
    address VARCHAR(50),  
    telephone VARCHAR(10),  
    dnum VARCHAR(10),  
    FOREIGN KEY (dnum) REFERENCES Department(dnum)  
);
```

```
CREATE TABLE Record(  
    cwid VARCHAR(9),  
    cnum VARCHAR(10),  
    snum VARCHAR(10),  
    grade VARCHAR(10),  
    FOREIGN KEY (cwid) REFERENCES Student(cwid),  
    FOREIGN KEY (cnum) REFERENCES Course(cnum),  
    FOREIGN KEY (snum) REFERENCES Section(snum)  
);
```

```
insert into Professor values (365869435, 'Joe Schmoe', '5318 Hill Avenue', 'Burbank', 'CA',  
90623, 714, 2013208, 'M', 'Adjunct Professor', 20350.00);
```

```
insert into Professor values (265489335, 'Louis Williams', '118 Rooster Drive', 'Orange', 'CA',  
94320, 714, 1309208, 'M', 'CS Department Chair', 75350.00);
```

```
insert into Professor values (165669035, 'Akira Kurusu', '2048 LeBlanc Street', 'San Gabriel',  
'CA', 91775, 626, 1039241, 'M', 'Engineering Department Chair', 705350.00);
```

```
insert into Department values (1234, 'Computer Science', 6572783700, 'Computer Science  
Building', 265489335);
```

```
insert into Department values (2345, 'Engineer', 6572785987, 'Engineering Building',  
165669035);
```

```
insert into Course values (332, 'Databases & Files', 'Database Structure', 3, 311, 1234);
```

```
insert into Course values (353, 'Intro Computer Security', 'CompTIA Security', 3, 311, 1234);
```

insert into Course values (102, 'Engineering Graphics', 'Engineering Graphics AutoCAD', 2, 101, 2345);

insert into Course values (205, 'Digital Computation', 'Fundamentals of Machine Computing', 3, 102, 2345);

insert into Section values (01, 332, 102, 'Mon/Wed', '10:00', '11:15', 35, 265489335);

insert into Section values (02, 332, 102, 'Tue/Thu', '11:00', '12:15', 35, 265489335);

insert into Section values (01, 353, 401, 'Mon/Wed', '14:00', '16:45', 25, 265489335);

insert into Section values (02, 353, 401, 'Tue/Thu', '7:00', '9:45', 25, 265489335);

insert into Section values (01, 102, 201, 'Fri', '9:00', '10:15', 30, 365869435);

insert into Section values (02, 102, 110, 'Mon/Wed', '14:00', '15:15', 30, 365869435);

insert into Section values (01, 205, 104, 'Mon/Wed', '12:00', '1:30', 22, 165669035);

insert into Section values (02, 205, 108, 'Fri', '13:00', '14:15', 22, 165669035);

insert into Student values (111111111, 'Dave', 'Castino', '1234 Memory Dr', '7149875462', '1234');

insert into Student values (222222222, 'Lee', 'Ho', '743 Orange St', '7145214532', '1234');

insert into Student values (333333333, 'Kelly', 'Vo', '477 LeMon Blvd', '7146263305', '1234');

insert into Student values (444444444, 'Kija', 'Noose', '556 Placentia St', '7146269543', '1234');

insert into Student values (555555555, 'Yusuke', 'Kitagawa', '424 Euclid St', '7146574152', '1234');

insert into Student values (666666666, 'Akechi', 'Goro', '220 South Park', '7146575564', '2345');

insert into Student values (777777777, 'Makoto', 'Naegi', '144 Science Ln', '7146578451', '2345');

insert into Student values (888888888, 'Komaeda', 'Nagito', '2113 Harbor St', '7146263179', '2345');

insert into Student values (999999999, 'Christian', 'Delgado', '2110 Achilles Dr', '7144878564', '2345');

insert into Student values (889021453, 'Diana', 'Tran', '1650 Hollywood Blvd', '7148486522', '1234');

insert into Record values (111111111, 332, 01, 'A+');

insert into Record values (111111111, 353, 01, 'A');

insert into Record values (111111111, 102, 01, 'B+');

insert into Record values (222222222, 332, 02, 'B');

insert into Record values (222222222, 353, 02, 'B');

insert into Record values (222222222, 102, 01, 'C');

insert into Record values (333333333, 332, 02, 'B');

insert into Record values (333333333, 353, 01, 'B-');

insert into Record values (333333333, 102, 02, 'C+');

insert into Record values (444444444, 332, 01, 'A-');

insert into Record values (444444444, 353, 02, 'C-');

insert into Record values (444444444, 205, 01, 'A+');

insert into Record values (555555555, 332, 02, 'B');

insert into Record values (555555555, 353, 02, 'B-');

insert into Record values (555555555, 205, 02, 'A');

insert into Record values (666666666, 102, 02, 'A');

insert into Record values (666666666, 205, 02, 'A');

insert into Record values (777777777, 102, 01, 'B-');

insert into Record values (777777777, 205, 01, 'B');

insert into Record values (8888888888, 102, 01, 'B-');

insert into Record values (8888888888, 205, 02, 'B');

insert into Record values (9999999999, 102, 01, 'A');

insert into Record values (9999999999, 205, 02, 'A');

insert into Record values (889021453, 332, 01, 'A+');

insert into Record values (889021453, 353, 02, 'A+');

4. The Interfaces developed in screenshots & Sample run of system including inputs and outputs

The image shows two screenshots of a web application titled "CPSC332 Final Project". The first screenshot is the main index page, which has a blue header with navigation links: HOME, Students, and Professors. The main content area has a blue background with the text "CPSC 332 Project University Database" and a prompt to click on links to access the database. Below this, there are two columns of instructions. The left column, titled "Click on Professors to take you to a page where ...", lists: "inputting their SSN you can view ..." followed by a bulleted list: "List of Titles", "Classrooms", "Meeting Days", "Time of his/her classes", and "inputting a course number and a section number you can view ..." followed by a bulleted list: "count how many students get each distinct grade, A+, A, A-, B, etc". A blue button labeled "Professors" is at the bottom of this column. The right column, titled "Click on Students to take you to a page where ...", lists: "inputting their CWID you can view ..." followed by a bulleted list: "List of all courses the student took" and "Grades", and "inputting a course number you can view ..." followed by a bulleted list: "List of sections of the course including the classrooms, meeting days, and the time" and "Number of students enrolled in each section". A dark blue button labeled "Students" is at the bottom of this column. The second screenshot shows the "Professors" page, which has a dark blue header with navigation links: HOME, Students, and Professors. The main content area is white and features a form titled "SSN" with a text input field labeled "Social Security Number" and a dark blue "Submit" button. Below this is a section titled "Course and Section Number" with two text input fields: "Course Number" and "Section Number", each with a dark blue "Submit" button. At the bottom, it says "Results for SSN 11:" followed by "No results found".

CPSC332 Final Project

HOME Students Professors

CPSC 332 Project University Database

Please click on the links above or below to access the database.

Click on Professors to take you to a page where ...

inputting their SSN you can view ...

- List of Titles
- Classrooms
- Meeting Days
- Time of his/her classes

inputting a course number and a section number you can view ...

- count how many students get each distinct grade, A+, A, A-, B, etc

Professors

Click on Students to take you to a page where ...

inputting their CWID you can view ...

- List of all courses the student took
- Grades

inputting a course number you can view ...

- List of sections of the course including the classrooms, meeting days, and the time
- Number of students enrolled in each section

Students

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ecs.fullerton.edu/~cs332s28/professors.php

CPSC332 Final Project

HOME Students Professors

SSN

Social Security Number

Submit

Course and Section Number

Course Number

Section Number

Submit

Results for SSN 11:

No results found

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ProfessorsDatabases

ecs.fullerton.edu/~cs332s28/professors.php

AppsNewsBookmark

CPSC332 Final ProjectHOMEStudentsProfessors

SSN

Social Security Number

Submit

Course and Section Number

Course Number

Section Number

Submit

Results for SSN 365869435:

Course Title	Classroom	Meeting Days	Start Time	End Time
Engineering Graphics	201	Fri	9:00am	10:15am
Engineering Graphics	110	Mon/Wed	2:00pm	3:15pm

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ProfessorsDatabases

ecs.fullerton.edu/~cs332s28/professors.php

AppsNewsBookmark

CPSC332 Final ProjectHOMEStudentsProfessors

SSN

Social Security Number

Submit

Course and Section Number

Course Number

Section Number

Submit

Results for Course 332 - 01:

Grade	Quantity
A+	2
A-	1

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ProfessorsDatabases

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Navie

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CPSC332 Final Project

HOMEStudentsProfessors

Submit

Course and Section Number

Course Number

Course Number

Section Number

Section Number

Submit

Results for Course 2 - 02:

No results found

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StudentsDatabases

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CPSC332 Final Project

HOMEStudentsProfessors

CWID

Campus-Wide ID

Submit

Course Number

Course Number

Submit

Results for CWID 11111111:

Course Title	Grade
Databases & Files	A+
Intro Computer Security	A
Engineering Graphics	B+

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StudentsDatabases

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HOMEStudentsProfessors

CWID

Campus-Wide ID

Submit

Course Number

Course Number

Submit

Results for CWID 6:

No results found

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StudentsDatabases

ecs.fullerton.edu/~cs332s28/students.php

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HOMEStudentsProfessors

CWID

Campus-Wide ID

Submit

Course Number

Course Number

Submit

Results for Course 332:

Section	Classroom	Meeting Days	Beginning Time	End Time	Number Enrolled
1	102	Mon/Wed	10:00am	11:15am	3
2	102	Tue/Thu	11:00am	12:15pm	3

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StudentsDatabases

ecs.fullerton.edu/~cs332s28/students.php

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CPSC332 Final Project

HOMEStudentsProfessors

CWID

Campus-Wide ID

Submit

Course Number

Course Number

Submit

Results for Course 9:

No results found

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Databasesx

ecs.fullerton.edu/~cs332s28/databases.php

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CPSC332 Final Project

HOMEStudentsProfessors

Databases Used

All Professors:

SSN	Name	Street	City	State	Zip	Area Code	7 Digit	Sex	Title	Salary
365869435	Joe Schmoe	5318 Hill Avenue	Burbank	CA	90623	714	2013208	M	Adjunct Professor	20350
265489335	Louis Williams	118 Rooster Drive	Orange	CA	94320	714	1309208	M	CS Department Chair	75350
165669035	Akira Kurusu	2048 LeBlanc Street	San Gabriel	CA	91775	626	1039241	M	Engineering Department Chair	705350

All Departments:

Department Number	Name	Telephone	Location	Chair SSN
1234	Computer Science	6572783700	Computer Science Building	265489335
2345	Engineer	6572785987	Engineering Building	165669035

All Courses:

ChromeFileEditViewHistoryBookmarksPeopleWindowHelp

Databasesx

ecs.fullerton.edu/~cs332s28/databases.php

AppsNewsBookmark

CPSC332 Final Project

HOMEStudentsProfessors

All Courses:

Course Number	Title	Textbook	Units	Prerequisite Course
332	Databases & Files	Database Structure	3	311
353	Intro Computer Security	CompTIA Security	3	311
102	Engineering Graphics	Engineering Graphics AutoCAD	2	101
205	Digital Computation	Fundamentals of Machine Computing	3	102

All Sections:

Section Number	Course Number	Room	Meeting Days	Beginning time	End Time	Number of Seats	Professor
1	332	102	Mon/Wed	10:00:00	11:15:00	35	265489335
2	332	102	Tue/Thu	11:00:00	12:15:00	35	265489335
1	353	401	Mon/Wed	14:00:00	16:45:00	25	265489335
2	353	401	Tue/Thu	07:00:00	09:45:00	25	265489335
1	102	201	Fri	09:00:00	10:15:00	30	365869435
2	102	110	Mon/Wed	14:00:00	15:15:00	30	365869435
1	205	104	Mon/Wed	12:00:00	01:30:00	22	165669035
2	205	108	Fri	13:00:00	14:15:00	22	165669035

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Databases

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AppsNewsBookmark

CPSC332 Final Project

HOMEStudentsProfessors

All Students:

CWID	First Name	Last Name	Address	Phone Number	Department Number
111111111	Dave	Castino	1234 Memory Dr	7149875462	1234
222222222	Lee	Ho	743 Orange St	7145214532	1234
333333333	Kelly	Vo	477 Lemon Blvd	7146263305	1234
444444444	Kija	Noose	556 Placentia St	7146269543	1234
555555555	Yusuke	Kitagawa	424 Euclid St	7146574152	1234
666666666	Akechi	Goro	220 South Park	7146575564	2345
777777777	Makoto	Naegi	144 Science Ln	7146578451	2345
888888888	Komaeda	Nagito	2113 Harbor St	7146263179	2345
999999999	Christian	Delgado	2110 Achilles Dr	7144878564	2345
889021453	Diana	Tran	1650 Hollywood Blvd	7148486522	1234

All Records:

CWID	Course Number	Section Number	Grade
111111111	332	1	A+
111111111	353	1	A

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Databases

ecs.fullerton.edu/~cs332s28/databases.php

AppsNewsBookmark

CPSC332 Final Project

HOMEStudentsProfessors

111111111	102	1	B+
222222222	332	2	B
222222222	353	2	B
222222222	102	1	C
333333333	332	2	B
333333333	353	1	B-
333333333	102	2	C+
444444444	332	1	A-
444444444	353	2	C-
444444444	205	1	A+
555555555	332	2	B
555555555	353	2	B-
555555555	205	2	A
666666666	102	2	A
666666666	205	2	A
777777777	102	1	B-
777777777	205	1	B
888888888	102	1	B-

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Databases

ecs.fullerton.edu/~cs332s28/databases.php

AppsNewsBookmark

Navie

CPSC332 Final Project

HOMEStudentsProfessors

55555555	353	2	B-
55555555	205	2	A
66666666	102	2	A
66666666	205	2	A
77777777	102	1	B-
77777777	205	1	B
88888888	102	1	B-
88888888	205	2	B
99999999	102	1	A
99999999	205	2	A
889021453	332	1	A+
889021453	353	2	A+

Created By

Navie Vurdien, Natalie Ang, David Tran