CPSC 332 Databases

Final Project

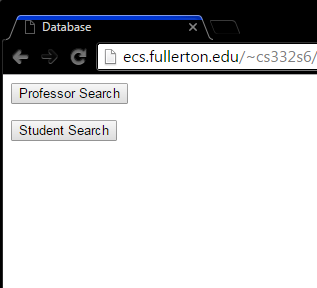
Authors:

Eric Lara – 3806

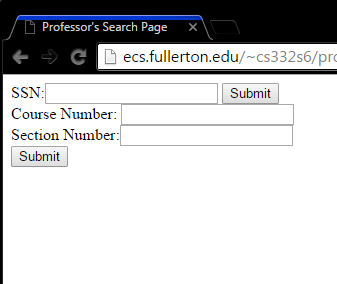
Adam Beck – 5510

Account Used: cs332s6

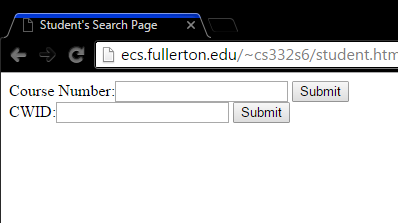
Homepage (index.html) of the website:



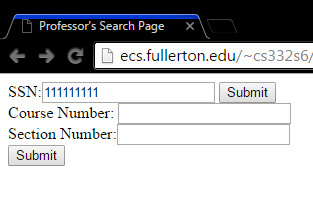
Empty Professor Search Page (professor.html):

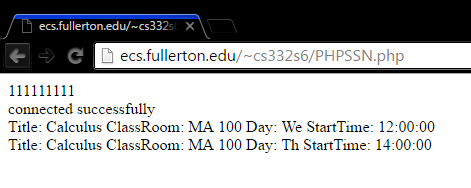


Empty Student Search Page (student.html):



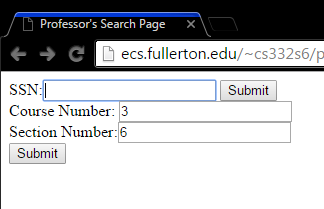
Searching by professor SSN, example used 111111111 (results returned by PHPSSN.php):

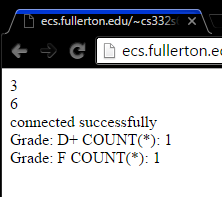




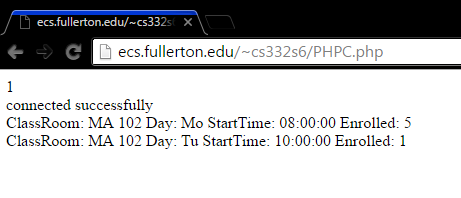
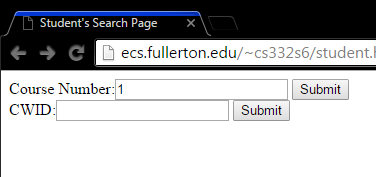
Searching by course and section number, examples used course 3 section 6

(results returned by PHPCS.php):

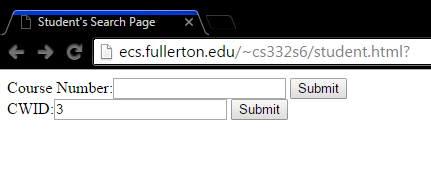


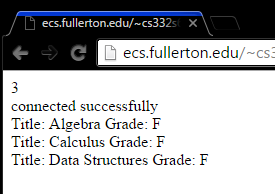


Student Search by course, example used, 1 (results returned by PHPC.php):

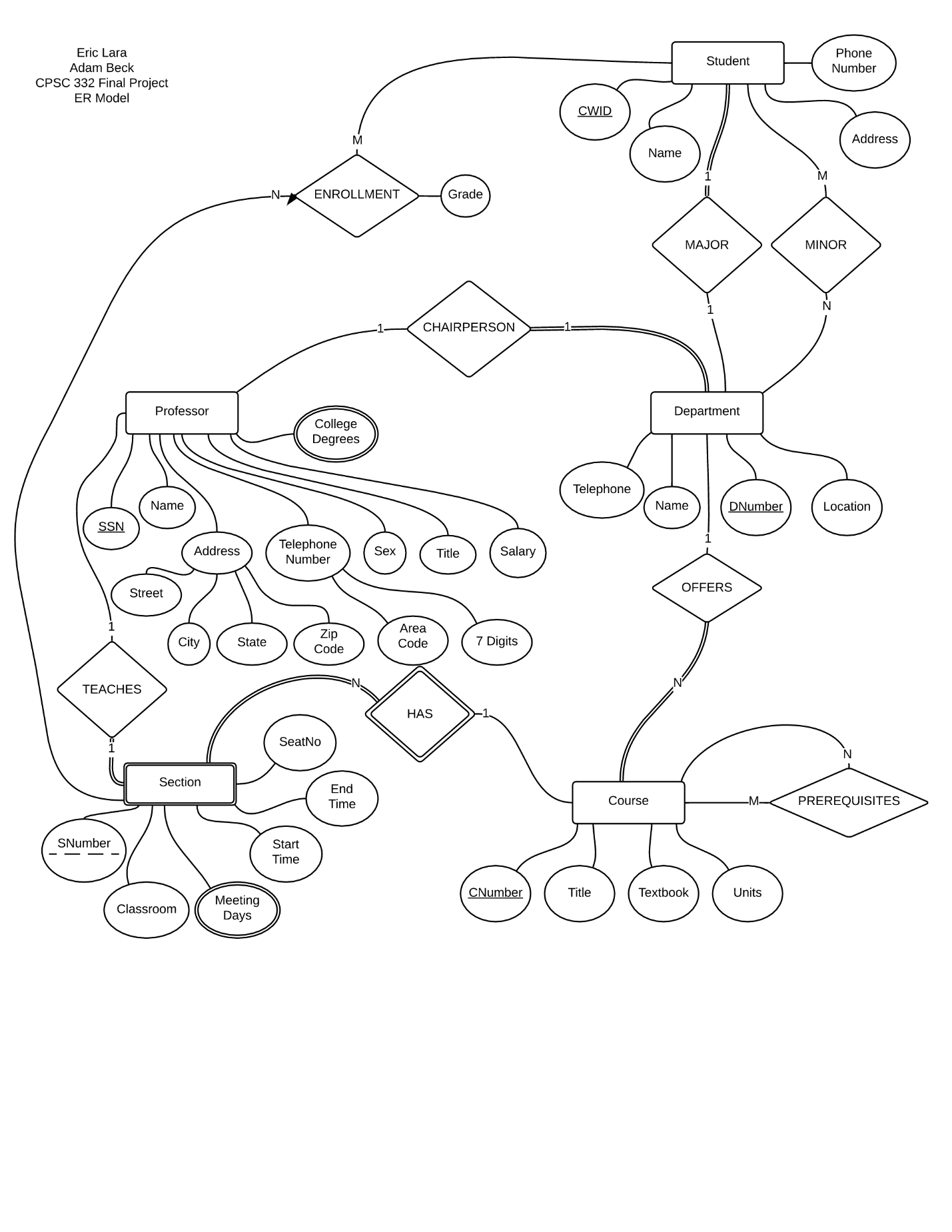


Student Search by CWID, example used 3 (results returned by PHPCWID.php):

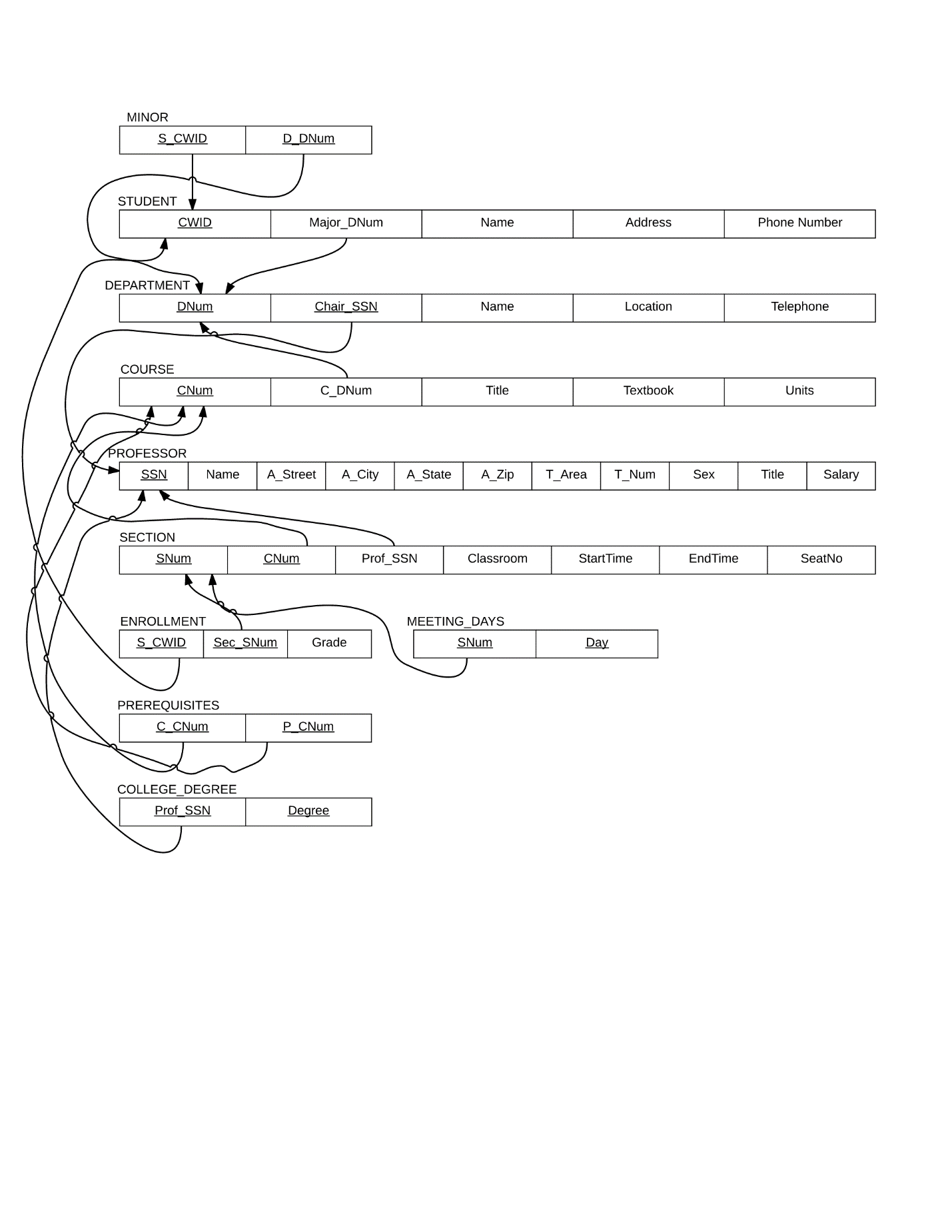




ER diagram:



Relational Diagram:



Index.html:

|  |
| --- |
| <head> |
| <title>Database</title> |
| </head> |
|  |
| <body> |
| <form action="professor.html"> |
| <input type = "submit" value = "Professor Search"> |
| </form> |
| <form action="student.html"> |
| <input type = "submit" value = "Student Search"> |
| </form> |
| </body> |
|  |
| </html> |

professor.html:

|  |
| --- |
| <html> |
| <head> |
| <title>Professor's Search Page</title> |
| </head> |
| <body> |
|  |
| <form action = "PHPSSN.php" method = "POST"> |
| SSN:<input type = "text" id = "ProSSN" name = "ProSSN"/> |
| <input type = "submit" \> |
| </form> |
| <form action = "PHPCS.php" method = "POST"> |
| Course Number: <input type = "text" id = "CoNum" name = "CoNum"/> |
| <br> |
| Section Number:<input type = "text" id = "SeNum" name = "SeNum"/> |
| <br> |
| <input type = "submit"\> |
| </form> |
| </body> |
|  |
| </html> |

student.html:

|  |
| --- |
| <html> |
| <head> |
| <title>Student's Search Page</title> |
| </head> |
| <body> |
|  |
| <form action = "PHPC.php" method = "POST"> |
| Course Number:<input type = "text" id = "CoNum" name = "CoNum"/> |
| <input type = "submit" \> |
| </form> |
| <form action = "PHPCWID.php" method = "POST"> |
| CWID:<input type = "text" id = "CWID" name = "CWID"/> |
| <input type = "submit"\> |
| </form> |
| </body> |
|  |
| </html> |

PHPSSN.php:

|  |
| --- |
| // PHP FILE FOR SSN PROFESSOR SEARCH |
|  |
| $ProSSN = $\_POST['ProSSN']; |
| echo $ProSSN; |
| echo "<br/>\n"; |
|  |
| $link = mysql\_connect('ecsmysql', 'cs332s6', 'maifedei') |
| or die('Could not connect: ' . mysql\_error()); |
| echo 'connected successfully'; |
| echo "<br/>\n"; |
|  |
| mysql\_select\_db('cs332s6') or die('Could not select database'); |
|  |
| $query = "SELECT Title, ClassRoom, Day, StartTime |
| FROM COURSE C, PROFESSOR P, SECTION S, MEETING\_DAY MD |
| WHERE P.SSN = S.SSN AND MD.S\_Num = S.S\_Num AND P.SSN = '$ProSSN' |
| AND S.C\_Num = C.C\_Num"; |
| $result = mysql\_query($query) or die('Query failed: ' . mysql\_error()); |
|  |
| while($row = mysql\_fetch\_array($result,MYSQL\_ASSOC)) { |
| foreach($row as $cname => $cvalue){ |
| print "$cname: $cvalue\t"; |
| } |
| echo "<br/>\n"; |
| } |
|  |
| mysql\_close($link); |
| ?> |

PHPCS.php:

|  |
| --- |
| // COURSE AND SECTION SEARCH PROFESSOR SEARCH |
| $CoNum = $\_POST['CoNum']; |
| $SeNum = $\_POST['SeNum']; |
|  |
| echo $CoNum; |
| echo "<br/>\n"; |
| echo $SeNum; |
| echo "<br/>\n"; |
|  |
| $link = mysql\_connect('ecsmysql', 'cs332s6', 'maifedei') |
| or die('Could not connect: ' . mysql\_error()); |
| echo 'connected successfully'; |
| echo "<br/>\n"; |
|  |
| mysql\_select\_db('cs332s6') or die('Could not select database'); |
|  |
| $query = "SELECT Grade, COUNT(\*) |
| FROM ENROLLMENT E, COURSE C, SECTION S |
| WHERE C.C\_Num = '$CoNum' AND S.C\_Num = C.C\_Num AND E.S\_Num = S.S\_Num AND |
| S.S\_Num = '$SeNum' |
| GROUP BY Grade"; |
|  |
| $result = mysql\_query($query) or die('Query failed: ' . mysql\_error()); |
|  |
| while($row = mysql\_fetch\_array($result,MYSQL\_ASSOC)) { |
| foreach($row as $cname => $cvalue){ |
| print "$cname: $cvalue\t"; |
| } |
| echo "<br/>\n"; |
| } |
|  |
| mysql\_close($link); |
| ?> |

PHPCWID.php:

|  |
| --- |
| $CWID = $\_POST['CWID']; |
|  |
| echo $CWID; |
| echo "<br/>\n"; |
|  |
| $link = mysql\_connect('ecsmysql', 'cs332s6', 'maifedei') |
| or die('Could not connect: ' . mysql\_error()); |
| echo 'connected successfully'; |
| echo "<br/>\n"; |
|  |
| mysql\_select\_db('cs332s6') or die('Could not select database'); |
|  |
| $query = "SELECT Title, Grade |
| FROM COURSE C, SECTION S, ENROLLMENT E |
| WHERE E.CWID = '$CWID' AND E.S\_Num = S.S\_Num AND S.C\_Num = C.C\_Num"; |
|  |
| $result = mysql\_query($query) or die('Query failed: ' . mysql\_error()); |
|  |
| while($row = mysql\_fetch\_array($result,MYSQL\_ASSOC)) { |
| foreach($row as $cname => $cvalue){ |
| print "$cname: $cvalue\t"; |
| } |
| echo "<br/>\n"; |
| } |
|  |
| mysql\_close($link); |
| ?> |

PHPC.php:

|  |
| --- |
| $CoNum = $\_POST['CoNum']; |
|  |
|  |
| echo $CoNum; |
| echo "<br/>\n"; |
|  |
| $link = mysql\_connect('ecsmysql', 'cs332s6', 'maifedei') |
| or die('Could not connect: ' . mysql\_error()); |
| echo 'connected successfully'; |
| echo "<br/>\n"; |
|  |
| mysql\_select\_db('cs332s6') or die('Could not select database'); |
|  |
| $query = "SELECT ClassRoom, Day, StartTime, COUNT(E.CWID) Enrolled |
| FROM COURSE C, SECTION S, MEETING\_DAY MD, ENROLLMENT E |
| WHERE C.C\_Num = '$CoNum' AND S.C\_Num = C.C\_Num AND MD.S\_Num = S.S\_Num |
|  |
| AND E.S\_Num = S.S\_Num |
| GROUP BY S.S\_Num"; |
|  |
| $result = mysql\_query($query) or die('Query failed: ' . mysql\_error()); |
|  |
| while($row = mysql\_fetch\_array($result,MYSQL\_ASSOC)) { |
| foreach($row as $cname => $cvalue){ |
| print "$cname: $cvalue\t"; |
| } |
| echo "<br/>\n"; |
| } |
|  |
| mysql\_close($link); |
| ?> |

Records used to fill the database (records.sql):

|  |
| --- |
| VALUES |
| (000000001, 1, 'Jesibelle Jenkins', '123 main street', 11111111111), |
| (000000002, 1, 'Tom Jones', '321 main street', 11111111112), |
| (000000003, 2, 'Kim Jong Un', 'REDACTED', 11111111113), |
| (000000004, 2, 'Joseph Stalin', '123 Gulag Street', 11111111114), |
| (000000005, 2, 'Adolf Hitler', '123 Reichstag Street', 11111111115), |
| (000000006, 1, 'Matt Bryan', '987 main way', 11111111116), |
| (000000007, 1, 'Jimmy Jam', '321 main way', 11111111117), |
| (000000008, 2, 'Andre Samuel', '4657 Somewhere road', 11111111118), |
| (000000009, 2, 'Brian Rums', '3124 Place way', 11111111119), |
| (000000010, 2, 'Andrew Bern', '986 Rood street', 11111111110); |
|  |
| INSERT INTO PROFESSOR |
| VALUES |
| (123456789, 'Bert Macklin', 'Place', 'Los Angeles', 'CA', '15951', 123, |
| 1234567, 'M', 'Professor', 50000), |
| (987654321, 'Jess Bess', 'Somewhere', 'Fullerton', 'CA', '55555', 321, |
| 9876543, 'F', 'Doctor', 60000), |
| (111111111, 'Scott Annin', 'Road', 'La Habra', 'CA', '98745', 987, |
| 7777777, 'M', 'Doctor', 60000); |
|  |
|  |
| INSERT INTO DEPARTMENT |
| VALUES |
| (1, 111111111, 'Mathematics', 'Math Building', '11111111111'), |
| (2, 987654321, 'Computer Science', 'CS Building', '22222222222'); |
|  |
| INSERT INTO COURSE |
| VALUES |
| (2, 1, 'Calculus', 'Calculus book', 4), |
| (3, 2, 'Databases', 'Database book', 4), |
| (4, 2, 'Data Structures', 'Data Structure book', 3), |
| (1, 1, 'Algebra', 'Basic Algebra Book', 4); |
|  |

|  |
| --- |
| INSERT INTO SECTION |
| VALUES |
| (1, 1, 123456789, 'MA 102', '08:00:00', '09:50:00', 30), |
| (2, 1, 123456789, 'MA 102', '10:00:00', '11:50:00', 30), |
| (3, 2, 111111111, 'MA 100', '12:00:00', '13:50:00', 30), |
| (4, 2, 111111111, 'MA 100', '14:00:00', '15:50:00', 30), |
| (5, 3, 123456789, 'CS 101', '08:00:00', '08:50:00', 30), |
| (6, 3, 987654321, 'CS 102', '09:00:00', '09:50:00', 30), |
| (7, 4, 987654321, 'CS 104', '10:00:00', '11:50:00', 30), |
| (8, 4, 987654321, 'CS 200', '14:00:00', '15:50:00', 30); |
| INSERT INTO ENROLLMENT |
| VALUES |
| (000000001, 1, 'A'), |
| (000000001, 8, 'A'), |
| (000000001, 3, 'A'), |
| (000000002, 2, 'B'), |
| (000000002, 5, 'A'), |
| (000000002, 3, 'C'), |
| (000000003, 1, 'F'), |
| (000000003, 8, 'F'), |
| (000000003, 3, 'F'), |
| (000000009, 6, 'F'), |
| (000000004, 5, 'F'), |
| (000000004, 7, 'F'), |
| (000000006, 7, 'F'), |
| (000000006, 3, 'F'), |
| (000000004, 1, 'B-'), |
| (000000004, 3, 'C+'), |
| (000000005, 1, 'A+'), |
| (000000006, 1, 'C-'), |
| (000000007, 3, 'D-'), |
| (000000007, 6, 'D+'), |
| (000000008, 8, 'B+'), |
| (000000009, 4, 'B+'), |
| (000000010, 8, 'F-'), |
| (000000010, 4, 'A+'), |
| (000000010, 5, 'A+'); |
| INSERT INTO MEETING\_DAY |
| VALUES |
| (1, "Mo"), |
| (2, "Tu"), |
| (3, "We"), |
| (4, "Th"), |
| (5, "Fr"), |
| (6, "Sa"), |
| (7, "Su"), |
| (8, "Mo"); |

MYSQL commands used to create the database (DB.sql):

|  |
| --- |
|  |
| CREATE TABLE STUDENT |
| (CWID numeric(9) PRIMARY KEY, |
| D\_Num int, |
| CONSTRAINT Major\_DNum FOREIGN KEY (D\_Num) REFERENCES DEPARTMENT(D\_Num), |
| Name char(30), |
| Address char(50), |
| Phone\_Number char(11)); |
|  |
| CREATE TABLE DEPARTMENT |
| (D\_Num int PRIMARY KEY, |
| SSN numeric(9), |
| CONSTRAINT Chair\_SSN FOREIGN KEY (SSN) REFERENCES PROFESSOR(SSN), |
| Name char(15), |
| Location char(20), |
| Phone\_Number char(11)); |
|  |
| CREATE TABLE COURSE |
| (C\_Num int PRIMARY KEY, |
| D\_Num int, |
| CONSTRAINT C\_DNum FOREIGN KEY (D\_Num) REFERENCES DEPARTMENT(D\_Num), |
| Title char(15), |
| Textbook char(20), |
| Units int); |
|  |
| CREATE TABLE PROFESSOR |
| (SSN numeric(9) PRIMARY KEY, |
| Name char(20), |
| A\_Street char(20), |
| A\_City char(20), |
| A\_State char(2), |
| A\_Zip numeric(5), |
| T\_Area numeric(3), |
| T\_num numeric(7), |
| Sex char, |
| ProfTitle char(15), |
| Salary int); |
|  |

|  |
| --- |
| CREATE TABLE SECTION |
| (S\_Num int, |
| C\_Num int, |
| SSN numeric(9), |
| CONSTRAINT S\_CNum FOREIGN KEY (C\_Num) REFERENCES COURSE(C\_Num), |
| CONSTRAINT S\_SSN FOREIGN KEY (SSN) REFERENCES PROFESSOR(SSN), |
| ClassRoom char(6), |
| StartTime time, |
| EndTime time, |
| SeatNo int); |
|  |
| CREATE TABLE ENROLLMENT |
| (CWID numeric(9), |
| S\_Num int, |
| CONSTRAINT S\_CWID FOREIGN KEY (CWID) REFERENCES STUDENT(CWID), |
| CONSTRAINT Sec\_SNum FOREIGN KEY (S\_Num) REFERENCES SECTION(S\_Num), |
| Grade char(2)); |
|  |
| CREATE TABLE MINOR |
| (CWID numeric(9), |
| D\_Num int, |
| CONSTRAINT S\_CWID FOREIGN KEY (CWID) REFERENCES STUDENT(CWID), |
| CONSTRAINT D\_DNum FOREIGN KEY (D\_Num) REFERENCES DEPARTMENT(D\_Num)); |
|  |
| CREATE TABLE PREREQUISITES |
| (C\_Num int, |
| CONSTRAINT C\_CNum FOREIGN KEY (C\_Num) REFERENCES COURSE(C\_Num), |
| CONSTRAINT P\_CNum FOREIGN KEY (C\_Num) REFERENCES COURSE(C\_Num)); |
|  |
| CREATE TABLE COLLEGE\_DEGREE |
| (SSN numeric(9), |
| CONSTRAINT Prof\_SSN FOREIGN KEY (SSN) REFERENCES PROFESSOR(SSN), |
| Degree char(50)); |
|  |
| CREATE TABLE MEETING\_DAY |
| (S\_Num int, |
| CONSTRAINT MD\_SNum FOREIGN KEY (S\_Num) REFERENCES |
| SECTION(S\_Num), |
| Day char(2)); |