

# **CPSC 332 File Structures and Databases**

**Instructor: Shawn X Wang**

**Fall 2022**

**Project Implementation Account: cs332f26**

**<http://ecs.fullerton.edu/~cs332f26/>**

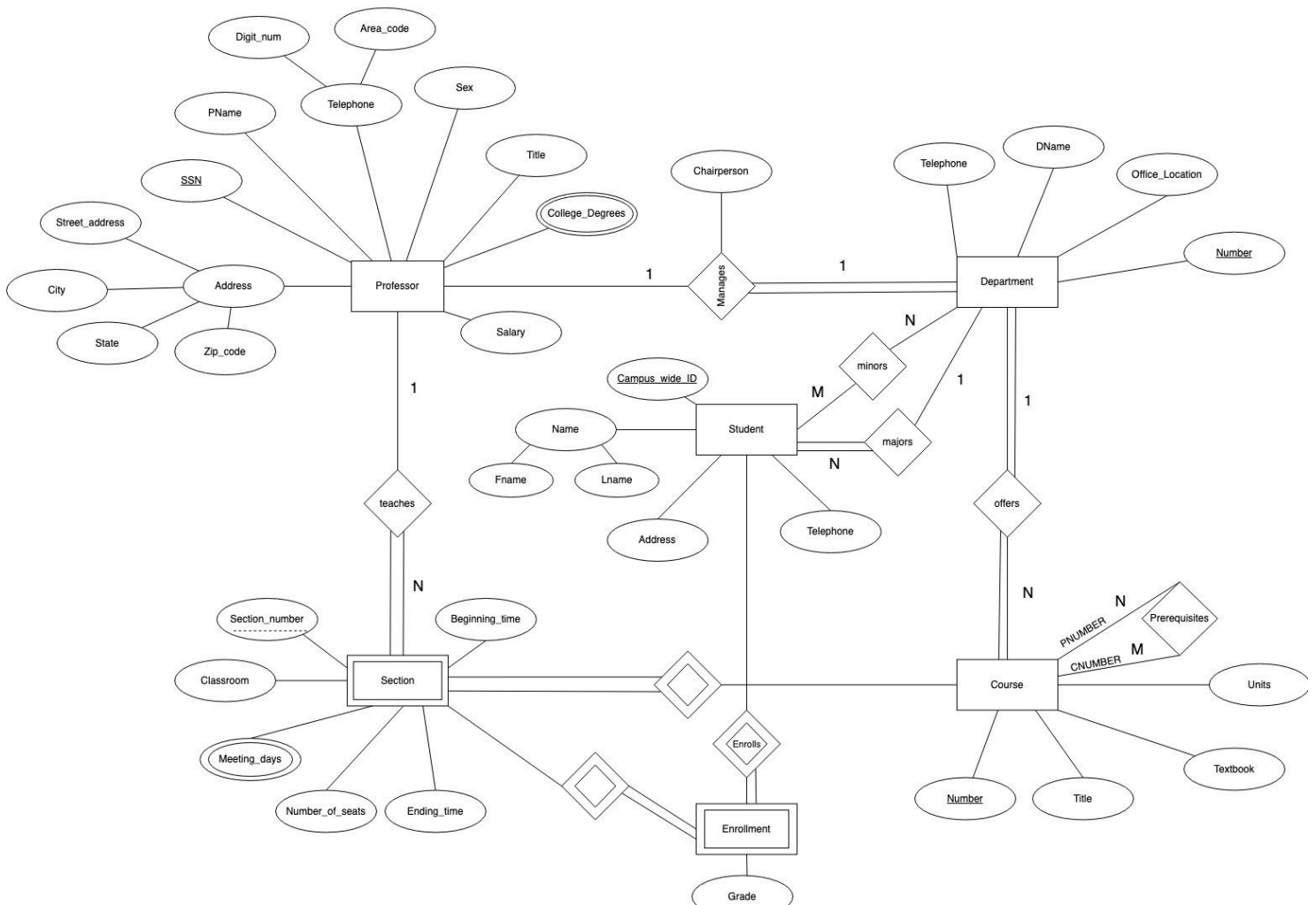
**Password: 6Kqjr0YR**

**Saul Ruiz (1602)**

**Pedro Morales (0584)**

**Hyojun Lee (2426)**

## ER DIAGRAM AND RELATIONAL MODEL



PROFESSOR\_COLLEGE\_DEGREES

<u>Professor_SSN</u>	<u>College_Degree</u>
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PROFESSOR

<u>SSN</u>	PName	Street_address	City	State	Zip_code	Area_code	Digit_num	Sex	Title	Salary
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DEPARTMENT

<u>Number</u>	DName	Telephone	Office_Location	Professor_SSN	Chairperson
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PREREQUISITE\_COURSE

<u>CNumber</u>	<u>Prerequisite_Number</u>
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COURSE

<u>Number</u>	Title	Textbook	Units	DNumber
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SECTION\_MEETING\_DAYS

<u>CNumber</u>	<u>Section_number</u>	<u>Meeting_day</u>
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SECTION

<u>CNumber</u>	<u>Section_number</u>	Classroom	Number_of_seats	Beginning_time	Ending_time	Professor_SSN
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MINORS

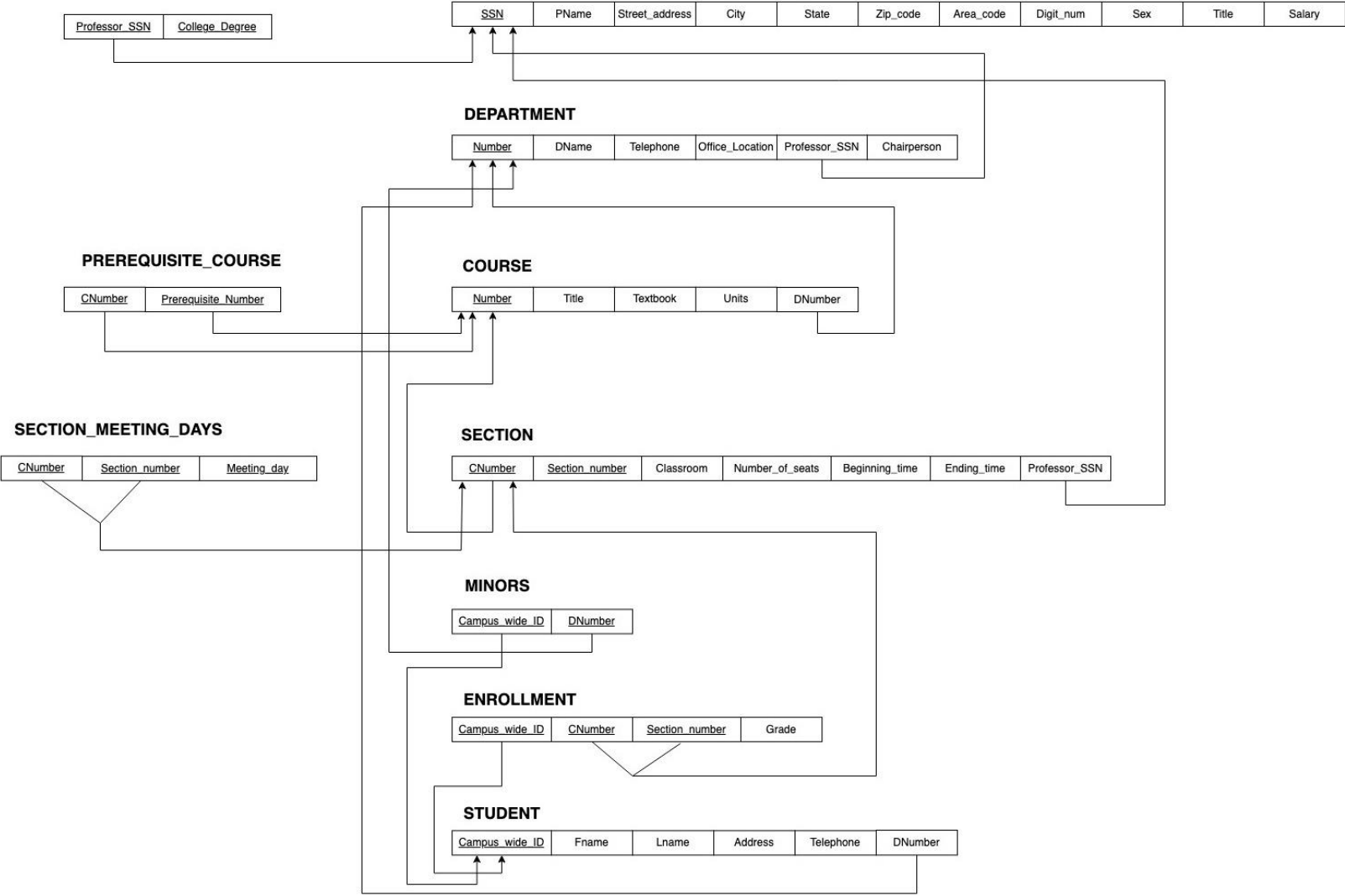
<u>Campus_wide_ID</u>	<u>DNumber</u>
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ENROLLMENT

<u>Campus_wide_ID</u>	<u>CNumber</u>	<u>Section_number</u>	Grade
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STUDENT

<u>Campus_wide_ID</u>	Fname	Lname	Address	Telephone	DNumber
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## Source Code/Implementation:

# DDL

```
CREATE TABLE PROFESSOR (SSN NUMERIC(9) PRIMARY KEY,
    PNAME VARCHAR(50),
    STREET_ADDRESS VARCHAR(30),
    CITY VARCHAR(20),
    STATE CHAR(2),
    ZIP_CODE CHAR(5),
    AREA_CODE NUMERIC(3),
    DIGIT_NUM NUMERIC(7),
    SEX ENUM('F', 'M'),
    TITLE VARCHAR(30),
    SALARY NUMERIC(6));

CREATE TABLE DEPARTMENT (NUMBER NUMERIC(10) PRIMARY KEY,
    DNAME VARCHAR(30),
    TELEPHONE NUMERIC(10),
    OFFICE_LOCATION VARCHAR(30),
    PROFESSOR_SSN NUMERIC(9),
    FOREIGN KEY (PROFESSOR_SSN) REFERENCES PROFESSOR(SSN),
    CHAIRPERSON VARCHAR(50));

CREATE TABLE COURSE (NUMBER VARCHAR(10) PRIMARY KEY,
    TITLE VARCHAR(30),
    TEXTBOOK VARCHAR(50),
    UNITS TINYINT,
    DNUMBER NUMERIC(10),
    FOREIGN KEY (DNUMBER) REFERENCES DEPARTMENT(NUMBER));

CREATE TABLE SECTION (CNUMBER VARCHAR(10),
    FOREIGN KEY (CNUMBER) REFERENCES COURSE(NUMBER),
    SECTION_NUMBER NUMERIC(10),
    CLASSROOM VARCHAR(30),
    NUMBER_OF_SEATS NUMERIC(3),
```

```

    BEGINNING_TIME VARCHAR(10),
    ENDING_TIME VARCHAR(10),
    PRIMARY KEY (CNUMBER, SECTION_NUMBER),
    PROFESSOR_SSN NUMERIC(9),
    FOREIGN KEY (PROFESSOR_SSN) REFERENCES PROFESSOR(SSN));

CREATE TABLE STUDENT (CAMPUS_WIDE_ID NUMERIC(9) PRIMARY KEY,
    FNAME VARCHAR(30),
    LNAME VARCHAR(30),
    ADDRESS VARCHAR(50),
    TELEPHONE NUMERIC(10),
    DNUMBER NUMERIC(10),
    FOREIGN KEY (DNUMBER) REFERENCES DEPARTMENT(NUMBER));

CREATE TABLE ENROLLMENT (CAMPUS_WIDE_ID NUMERIC(9),
    FOREIGN KEY (CAMPUS_WIDE_ID) REFERENCES STUDENT(CAMPUS_WIDE_ID),
    CNUMBER VARCHAR(10),
    SECTION_NUMBER NUMERIC(10),
    FOREIGN KEY (CNUMBER, SECTION_NUMBER) REFERENCES SECTION(CNUMBER, SECTION_NUMBER),
    GRADE ENUM ('A+', 'A', 'A-', 'B+', 'B', 'B-', 'C+', 'C', 'C-', 'D+', 'D', 'D-',
    'F', 'W'),
    PRIMARY KEY (CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER));

CREATE TABLE MINORS (CAMPUS_WIDE_ID NUMERIC(9),
    FOREIGN KEY (CAMPUS_WIDE_ID) REFERENCES STUDENT(CAMPUS_WIDE_ID),
    DNUMBER NUMERIC(10),
    FOREIGN KEY (DNUMBER) REFERENCES DEPARTMENT(NUMBER),
    PRIMARY KEY (CAMPUS_WIDE_ID, DNUMBER));

CREATE TABLE PROFESSOR_COLLEGE_DEGREES (PROFESSOR_SSN NUMERIC(9),
    FOREIGN KEY (PROFESSOR_SSN) REFERENCES PROFESSOR(SSN),
    COLLEGE_DEGREE VARCHAR(30),
    PRIMARY KEY (PROFESSOR_SSN, COLLEGE_DEGREE));

CREATE TABLE PREREQUISITE_COURSE (CNUMBER VARCHAR(10) REFERENCES COURSE(NUMBER),
    PREREQUISITE_NUMBER VARCHAR(10) REFERENCES COURSE(NUMBER),
    PRIMARY KEY (CNUMBER, PREREQUISITE_NUMBER));

CREATE TABLE SECTION_MEETING_DAYS (CNUMBER VARCHAR(10) REFERENCES SECTION(CNUMBER),
    SECTION_NUMBER NUMERIC(10) REFERENCES SECTION(SECTION_NUMBER),
    MEETING_DAY ENUM ('Mon', 'Tues', 'Wed', 'Thurs', 'Fri', 'Sat'),
    PRIMARY KEY (CNUMBER, SECTION_NUMBER, MEETING_DAY));

```

```

-- PROFESSOR TABLE INSERTS

INSERT INTO PROFESSOR(SSN, PNAME, STREET_ADDRESS, CITY, STATE, ZIP_CODE, AREA_CODE,
DIGIT_NUM, SEX, TITLE, SALARY)
VALUES('123456789', 'John Smith', '123 E Red St', 'Fullerton', 'CA', '90621', '657',
'1234567', 'M', 'Professor', '120000');

INSERT INTO PROFESSOR (SSN, PNAME, STREET_ADDRESS, CITY, STATE, ZIP_CODE, AREA_CODE,
DIGIT_NUM, SEX, TITLE, SALARY)
VALUES('342481341', 'Jane Williams', '4921 S Blue St', 'Anaheim', 'CA', '90703',
'657', '4921924', 'F', 'Professor', '120000');

INSERT INTO PROFESSOR (SSN, PNAME, STREET_ADDRESS, CITY, STATE, ZIP_CODE, AREA_CODE,
DIGIT_NUM, SEX, TITLE, SALARY)
VALUES('999999999', 'Richard Sanchez', '806 W Elm St', 'Laguna Hills', 'CA', '92637',
'949', '1030507', 'M', 'Adjunct Professor', '45000');

INSERT INTO PROFESSOR (SSN, PNAME, STREET_ADDRESS, CITY, STATE, ZIP_CODE, AREA_CODE,
DIGIT_NUM, SEX, TITLE, SALARY)
VALUES('514440011', 'Casey Jones', '501 N Washington St', 'Fullerton', 'CA', '90621',
'657', '0214260', 'M', 'Associate Professor', '90000');

-- DEPARTMENT TABLE INSERTS

INSERT INTO DEPARTMENT(NUMBER, DNAME, TELEPHONE, OFFICE_LOCATION, PROFESSOR_SSN,
CHAIRPERSON)
VALUES('1000000000', 'CPSC', '9428192412', 'CS-201', '123456789', 'John Smith');

INSERT INTO DEPARTMENT(NUMBER, DNAME, TELEPHONE, OFFICE_LOCATION, PROFESSOR_SSN,
CHAIRPERSON)
VALUES('2000000000', 'MATH', '9422452391', 'MH-514', '342481341', 'Jane Williams');

-- COURSE TABLE INSERTS

INSERT INTO COURSE(NUMBER, TITLE, TEXTBOOK, UNITS, DNUMBER)
VALUES('CPSC 131', 'Data Structures', 'Introduction to Data Structures', '3',
'1000000000');

INSERT INTO COURSE(NUMBER, TITLE, TEXTBOOK, UNITS, DNUMBER)
VALUES('CPSC 121', 'Object-Oriented Programming', 'Introduction to OO Programming',
'3', '1000000000');

INSERT INTO COURSE(NUMBER, TITLE, TEXTBOOK, UNITS, DNUMBER)
VALUES('MATH 150A', 'Calculus I', 'Calculus Essentials', '3', '2000000000');

```

```

INSERT INTO COURSE(NUMBER, TITLE, TEXTBOOK, UNITS, DNUMBER)
VALUES('MATH 150B', 'Calculus II', 'Calculus Essentials', '3', '2000000000');

-- SECTION TABLE INSERTS

INSERT INTO SECTION(CNUMBER, SECTION_NUMBER, CLASSROOM, NUMBER_OF_SEATS,
BEGINNING_TIME, ENDING_TIME, PROFESSOR_SSN)
VALUES('CPSC 131', '12345', 'CS-101', '30', '1:00 PM', '2:15 PM', '123456789');

INSERT INTO SECTION(CNUMBER, SECTION_NUMBER, CLASSROOM, NUMBER_OF_SEATS,
BEGINNING_TIME, ENDING_TIME, PROFESSOR_SSN)
VALUES('CPSC 121', '12346', 'CS-102', '40', '11:00 AM', '12:15 PM', '514440011');

INSERT INTO SECTION(CNUMBER, SECTION_NUMBER, CLASSROOM, NUMBER_OF_SEATS,
BEGINNING_TIME, ENDING_TIME, PROFESSOR_SSN)
VALUES('CPSC 121', '12347', 'CS-102', '30', '2:00 PM', '3:15 PM', '514440011');

INSERT INTO SECTION(CNUMBER, SECTION_NUMBER, CLASSROOM, NUMBER_OF_SEATS,
BEGINNING_TIME, ENDING_TIME, PROFESSOR_SSN)
VALUES('MATH 150A', '12001', 'MH-410', '35', '9:00 AM', '10:50 AM', '342481341');

INSERT INTO SECTION(CNUMBER, SECTION_NUMBER, CLASSROOM, NUMBER_OF_SEATS,
BEGINNING_TIME, ENDING_TIME, PROFESSOR_SSN)
VALUES('MATH 150B', '12101', 'H-205', '30', '9:00 AM', '10:50 AM', '999999999');

INSERT INTO SECTION(CNUMBER, SECTION_NUMBER, CLASSROOM, NUMBER_OF_SEATS,
BEGINNING_TIME, ENDING_TIME, PROFESSOR_SSN)
VALUES('MATH 150B', '12102', 'H-205', '35', '1:00 PM', '2:50 PM', '999999999');

-- STUDENT TABLE INSERTS

INSERT INTO STUDENT(CAMPUS_WIDE_ID, FNAME, LNAME, ADDRESS, TELEPHONE, DNUMBER)
VALUES('987654321', 'Jada', 'Roberts', '987 W Lake Dr, Fullerton, CA 90620',
'6579876543', '1000000000');

INSERT INTO STUDENT(CAMPUS_WIDE_ID, FNAME, LNAME, ADDRESS, TELEPHONE, DNUMBER)
VALUES('180604020', 'Christopher', 'Jackson', '1932 E Lincoln Dr, Anaheim, CA 90703',
'6570806040', '2000000000');

INSERT INTO STUDENT(CAMPUS_WIDE_ID, FNAME, LNAME, ADDRESS, TELEPHONE, DNUMBER)
VALUES('181614121', 'Thomas', 'Cruz', '120 S Pool St, Fullerton, CA 90620',
'6571816141', '2000000000');

```

```

INSERT INTO STUDENT(CAMPUS_WIDE_ID, FNAME, LNAME, ADDRESS, TELEPHONE, DNUMBER)
VALUES('937353332', 'Andrew', 'Canon', '2049 N Cherry St, Anaheim, CA 90703',
'6572826242', '1000000000');

INSERT INTO STUDENT(CAMPUS_WIDE_ID, FNAME, LNAME, ADDRESS, TELEPHONE, DNUMBER)
VALUES('484644345', 'Amber', 'Morrison', '941 E Maple Dr, Fullerton, CA 90620',
'6573836343', '2000000000');

INSERT INTO STUDENT(CAMPUS_WIDE_ID, FNAME, LNAME, ADDRESS, TELEPHONE, DNUMBER)
VALUES('585654328', 'Olivia', 'Charles', '492 W Broadway St, Anaheim, CA 90703',
'6574846443', '1000000000');

INSERT INTO STUDENT(CAMPUS_WIDE_ID, FNAME, LNAME, ADDRESS, TELEPHONE, DNUMBER)
VALUES('967656321', 'William', 'Smith', '502 S Arbor Dr, Fullerton, CA 90620',
'6575856545', '2000000000');

INSERT INTO STUDENT(CAMPUS_WIDE_ID, FNAME, LNAME, ADDRESS, TELEPHONE, DNUMBER)
VALUES('787657327', 'Jonathan', 'Garcia', '812 N Harbor St, Fullerton, CA 90620',
'6576866546', '1000000000');

-- ENROLLMENT TABLE INSERTS
INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('987654321', 'CPSC 131', '12345', 'A-');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('987654321', 'CPSC 121', '12346', 'A+');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('987654321', 'MATH 150A', '12001', 'B-');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('987654321', 'MATH 150B', '12102', 'C+');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('180604020', 'CPSC 131', '12345', 'D-');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('180604020', 'CPSC 121', '12347', 'C+');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('180604020', 'MATH 150A', '12001', 'F');

```



```
INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('181614121', 'CPSC 121', '12346', 'W');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('181614121', 'MATH 150A', '12001', 'D');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('937353332', 'MATH 150A', '12001', 'A');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('937353332', 'MATH 150B', '12101', 'B+');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('484644345', 'CPSC 121', '12347', 'A+');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('484644345', 'CPSC 131', '12345', 'C');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('585654328', 'CPSC 131', '12345', 'A-');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('585654328', 'CPSC 121', '12347', 'B');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('585654328', 'MATH 150A', '12001', 'C-');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('967656321', 'CPSC 131', '12345', 'A+');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('967656321', 'CPSC 121', '12346', 'A-');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('967656321', 'MATH 150A', '12001', 'A+');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('967656321', 'MATH 150B', '12101', 'D+');

INSERT INTO ENROLLMENT(CAMPUS_WIDE_ID, CNUMBER, SECTION_NUMBER, GRADE)
VALUES('787657327', 'MATH 150A', '12001', 'F');
```

```

-- MINORS TABLE INSERTS
INSERT INTO MINORS (CAMPUS_WIDE_ID, DNUMBER)
VALUES ('987654321', '2000000000');

INSERT INTO MINORS (CAMPUS_WIDE_ID, DNUMBER)
VALUES ('484644345', '1000000000');

INSERT INTO MINORS (CAMPUS_WIDE_ID, DNUMBER)
VALUES ('967656321', '1000000000');

-- PROFESSOR_COLLEGE_DEGREES TABLE INSERTS
INSERT INTO PROFESSOR_COLLEGE_DEGREES (PROFESSOR_SSN, COLLEGE_DEGREE)
VALUES ('123456789', 'Computer Science');

INSERT INTO PROFESSOR_COLLEGE_DEGREES (PROFESSOR_SSN, COLLEGE_DEGREE)
VALUES ('342481341', 'Mathematics');

INSERT INTO PROFESSOR_COLLEGE_DEGREES (PROFESSOR_SSN, COLLEGE_DEGREE)
VALUES ('999999999', 'Mathematics');

-- PREREQUISITE_COURSE TABLE INSERTS
INSERT INTO PREREQUISITE_COURSE (CNUMBER, PREREQUISITE_NUMBER)
VALUES ('CPSC 131', 'CPSC 121');

INSERT INTO PREREQUISITE_COURSE (CNUMBER, PREREQUISITE_NUMBER)
VALUES ('MATH 150B', 'MATH 150A');

-- SECTION_MEETING_DAYS TABLE INSERTS
INSERT INTO SECTION_MEETING_DAYS (CNUMBER, SECTION_NUMBER, MEETING_DAY)
VALUES ('CPSC 131', '12345', 'Mon');

INSERT INTO SECTION_MEETING_DAYS (CNUMBER, SECTION_NUMBER, MEETING_DAY)
VALUES ('CPSC 131', '12345', 'Wed');

INSERT INTO SECTION_MEETING_DAYS (CNUMBER, SECTION_NUMBER, MEETING_DAY)
VALUES ('CPSC 121', '12346', 'Tues');

INSERT INTO SECTION_MEETING_DAYS (CNUMBER, SECTION_NUMBER, MEETING_DAY)
VALUES ('CPSC 121', '12346', 'Thurs');

```

```

INSERT INTO SECTION_MEETING_DAYS (CNUMBER, SECTION_NUMBER, MEETING_DAY)
VALUES ('CPSC 121', '12347', 'Thurs');

INSERT INTO SECTION_MEETING_DAYS (CNUMBER, SECTION_NUMBER, MEETING_DAY)
VALUES ('CPSC 121', '12347', 'Fri');

INSERT INTO SECTION_MEETING_DAYS (CNUMBER, SECTION_NUMBER, MEETING_DAY)
VALUES ('MATH 150A', '12001', 'Sat');

INSERT INTO SECTION_MEETING_DAYS (CNUMBER, SECTION_NUMBER, MEETING_DAY)
VALUES ('MATH 150B', '12101', 'Mon');

INSERT INTO SECTION_MEETING_DAYS (CNUMBER, SECTION_NUMBER, MEETING_DAY)
VALUES ('MATH 150B', '12101', 'Wed');

INSERT INTO SECTION_MEETING_DAYS (CNUMBER, SECTION_NUMBER, MEETING_DAY)
VALUES ('MATH 150B', '12102', 'Fri');

```

# SQL

## QUERY # 1

```

$sql = "SELECT P.PNAME, C.NUMBER, C.TITLE, S.SECTION_NUMBER, S.CLASSROOM,
S.BEGINNING_TIME, S.ENDING_TIME,
(
    SELECT GROUP_CONCAT(D.MEETING_DAY SEPARATOR ' ')
    FROM SECTION_MEETING_DAYS D
    WHERE D.SECTION_NUMBER=S.SECTION_NUMBER
) AS MEETING_DAYS
FROM PROFESSOR P, COURSE C, SECTION S
WHERE P.SSN={ $SSN } AND P.SSN=S.PROFESSOR_SSN AND C.NUMBER=S.CNUMBER;";

```

## QUERY # 2

```
$sql = "SELECT L.GRADE, COUNT(R.CAMPUS_WIDE_ID) AS NUMBER_OF_STUDENTS
        FROM ENROLLMENT L
        LEFT JOIN (
            SELECT *
            FROM ENROLLMENT
            WHERE CNUMBER={ $CNO } AND SECTION_NUMBER={ $SNO } ) R
        ON L.CAMPUS_WIDE_ID=R.CAMPUS_WIDE_ID AND L.CNUMBER=R.CNUMBER AND
        L.SECTION_NUMBER=R.SECTION_NUMBER
        GROUP BY L.GRADE;";
```

## QUERY # 3

```
$sql = "SELECT C.NUMBER, S.SECTION_NUMBER, S.CLASSROOM, S.NUMBER_OF_SEATS,
        (
            SELECT GROUP_CONCAT(D.MEETING_DAY SEPARATOR ' ')
            FROM SECTION_MEETING_DAYS D
            WHERE D.SECTION_NUMBER=S.SECTION_NUMBER
        ) AS MEETING_DAYS,
        S.BEGINNING_TIME, S.ENDING_TIME,
        (
            SELECT COUNT(*)
            FROM ENROLLMENT E
            WHERE E.SECTION_NUMBER=S.SECTION_NUMBER
        ) AS TOTAL_ENROLLED
        FROM COURSE C, SECTION S
        WHERE C.NUMBER={ $CNO } AND C.NUMBER=S.CNUMBER;";
```

## QUERY # 4

```
$sql = "SELECT S.FNAME, S.LNAME, C.NUMBER, C.TITLE, E.GRADE
        FROM ENROLLMENT E, STUDENT S, COURSE C
        WHERE E.CAMPUS_WIDE_ID={ $CWID } AND E.CAMPUS_WIDE_ID=S.CAMPUS_WIDE_ID
        AND C.NUMBER=E.CNUMBER;";
```

# PHP SCRIPTS

# Index.html

```
<!doctype html>
<html lang="en-US">
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>CPSC 332 - Project 1</title>
  <link href="./dist/output.css" rel="stylesheet">
</head>
<body>

<div class="container">
  <header>
    <div class="navbar">
      <a href="http://ecs.fullerton.edu/~cs332f26" class="btn btn-ghost normal-case text-xl bg-cyan-400">HOME</a>
    </div>
  </header>
  <section class="title" id="title">
    <h2 class="title_header text-6xl text-center py-2 pl-3">CSUF Database</h2>
    <h2 class="tagline text-2xl antialiased py-2 pl-7">Professors and Students
Information</p>
  </section>
  <section class="input" id="input">
    <h2 class="input_header1 text-2xl antialiased py-2 pl-2 pt-16">Professors:</h2>

    <div class="">
      <form action="./professors_SSN.php" method="post">
        <label class="input-group py-4">
          <span>Social Security Number</span>
          <input class="input input-bordered w-full max-w-xs" type="text" name =
"SSN" placeholder="Please input 9 digit SSN" required minlength="9"></p>
        </label>
        <input class="button btn" type="submit" value="submit">
      </form>

      <form action="./student_grades.php" method="post">
        <label class="input-group py-4">
          <span>Course Number</span>
          <input class="input input-bordered w-full max-w-xs" type="text" name =
"CNO" placeholder="e.g MATH 150A" required></p>
      </form>
    </div>
  </section>
</div>
</body>
</html>
```

```

        </label>

        <label class="input-group py-4">
            <span>Section Number</span>
            <input class="input input-bordered w-full max-w-xs" type="text" name =
"SNO" placeholder="Please input Section #" required></p>
        </label>
        <input class="button btn" type="submit" value="submit">
    </form>
</div>

<h2 class="input_header2 text-2xl antialiased py-2 pl-2 pt-20">Students:</h2>

<div class="input_data2">
    <form action="./courselist.php" method="post">
        <label class="input-group py-4">
            <span>Course Number</span>
            <input class="input input-bordered w-full max-w-xs" type="text" name =
"CNO" placeholder="e.g MATH 150A" required></p>
        </label>
        <input class="button btn" type="submit" value="submit">
    </form>
    <form action="./transcript.php" method="post">
        <label class="input-group py-4">
            <span>Campus Wide ID</span>
            <input class="input input-bordered w-full max-w-xs" type="text" name =
"CWID" placeholder="Please input Campus Wide ID" required></p>
        </label>
        <input class="button btn" type="submit" value="submit">
    </form>
</div>
</section>
</div>
</body>
</html>

```

## PHP Script # 1

```

<html>
<head>
    <title>CPSC 332 - Project 1</title>

```

```

<link href="../dist/output.css" rel="stylesheet">
</head>

<body>
    <header>
        <div class="navbar">
            <a href="http://ecs.fullerton.edu/~cs332f26" class="btn btn-ghost normal-
case text-xl bg-cyan-400">HOME</a>
        </div>
    </header>
    <?php
        $SSN = $_POST['SSN'];
        $dbServername = "mariadb";
        $dbUsername = "cs332f26";
        $dbPassword = "6Kqjr0YR";
        $dbName = "cs332f26";

        // set connection
        $con= mysqli_connect($dbServername, $dbUsername, $dbPassword, $dbName);

        //check connection
        if (!$con) {
            die('Could not connect: ' . mysql_error());
        }
    ?>

    <?php
        $sql = "SELECT P.PNAME, C.NUMBER, C.TITLE, S.SECTION_NUMBER, S.CLASSROOM,
S.BEGINNING_TIME, S.ENDING_TIME,
            (
                SELECT GROUP_CONCAT(D.MEETING_DAY SEPARATOR ' ')
                FROM SECTION_MEETING_DAYS D
                WHERE D.SECTION_NUMBER=S.SECTION_NUMBER
            ) AS MEETING_DAYS
        FROM PROFESSOR P, COURSE C, SECTION S
        WHERE P.SSN={ $SSN } AND P.SSN=S.PROFESSOR_SSN AND C.NUMBER=S.CNUMBER;";

        $result = $con->query($sql);
    ?>

    <div class="container">
        <section class="title" id="title">
            <h1 class="title_header text-xl pl-4">Result Output</h1>

```

```

</section>

<section class="input" id="input">

<div class="input_data1">
    <div class="table table-zebra w-full">
        <?php
            if ($result->num_rows > 0) {?>
                <?php
                    $row = $result->fetch_assoc();
                    echo "<h2 class='text-2xl antialiased py-4'>Hello, Professor
", $row["PNAME"], "<h2>";
                ?>
            <table class="table w-full">
                <thead>
                    <tr>
                        <th scope="col">Course </th>
                        <th scope="col">Section </th>
                        <th scope="col">Course Title </th>
                        <th scope="col">Classroom </th>
                        <th scope="col">Meeting Days </th>
                        <th scope="col">Time</th>
                    </tr>
                </thead>
                <tbody>
                    <?php foreach($result as $row) { ?>
                        <tr>
                            <td><?php echo $row["NUMBER"]; ?></td>
                            <td><?php echo $row["SECTION_NUMBER"]; ?></td>
                            <td><?php echo $row["TITLE"]; ?></td>
                            <td><?php echo $row["CLASSROOM"]; ?></td>
                            <td><?php echo $row["MEETING_DAYS"] ; ?></td>
                            <td><?php echo $row["BEGINNING_TIME"]
                                . ' - ' . $row["ENDING_TIME"] ;?></td>
                        </tr>
                    <?php } ?>
                </tbody>
            </table>
        </div>
        <?php }
        else {
            echo "0 results";
        } ?>
    <?php

```



```

        $con->close();

    ?>
</div>
</section>
</div>
</body>
</html>

```

## PHP Script # 2

```

<html>
<head>
    <title>CPSC 332 - Project 1</title>
    <link href="./dist/output.css" rel="stylesheet">
</head>
<body>
    <header>
        <div class="navbar">
            <a href="http://ecs.fullerton.edu/~cs332f26" class="btn btn-ghost normal-
case text-xl bg-cyan-400">HOME</a>
        </div>
    </header>
    <?php
        $CNO = $_POST['CNO'];

        $CNO = strtoupper(json_encode($CNO)); // encode to JSON

        $SNO = $_POST['SNO'];

        $dbServername = "mariadb";
        $dbUsername = "cs332f26";
        $dbPassword = "6Kqjr0YR";
        $dbName = "cs332f26";

        // set connection
        $con= mysqli_connect($dbServername, $dbUsername, $dbPassword, $dbName);

        //check connection
        if (!$con) {
            die('Could not connect: ' . mysql_error());
        }
    ?>
<?php

```

```

        $sql = "SELECT L.GRADE, COUNT(R.CAMPUS_WIDE_ID) AS NUMBER_OF_STUDENTS
                FROM ENROLLMENT L
                LEFT JOIN (
                        SELECT *
                        FROM ENROLLMENT
                        WHERE CNUMBER={ $CNO } AND SECTION_NUMBER={ $SNO } ) R
                ON L.CAMPUS_WIDE_ID=R.CAMPUS_WIDE_ID AND L.CNUMBER=R.CNUMBER AND
L.SECTION_NUMBER=R.SECTION_NUMBER
                GROUP BY L.GRADE;";

        $result = $con->query($sql);

        $CNO = json_decode($CNO); // decode CNO
    ?>

<div class="container">
    <section class="title" id="title">
        <h2 class="text-2xl antialiased py-2 pl-4"> <?php echo "COURSE: ", $CNO ;?></
h2>
        <h2 class="text-2xl antialiased py-2 pl-4"> <?php echo "SECTION: ", $SNO ;?></
h2>
    </section>

    <section class="input" id="input">
        <div class="input_data1">
            <div class="container2">
                <?php
                $nor =$result->num_rows;
                if ($result->num_rows > 0) {
                    ?>

                    <table class="table w-full">
                        <thead>
                            <tr>
                                <th scope="col">Grade </th>
                                <th scope="col"># of Students </th>
                            </tr>
                        </thead>
                        <tbody>

                            <?php while($row = $result->fetch_assoc()) { ?>
                                <tr>
                                    <td> <?php echo $row["GRADE"] ;?></td>
                                    <td><?php echo $row["NUMBER_OF_STUDENTS"] ; ?></td>

```

```

                </tr>

                <?php } ?>
            </tbody>
        </table>

        <?php
            } else {
                echo "0 results";
            }
        ?>

        <?php
            $con->close();
        ?>
    </div>
</div>
</section>
</div>
</body>
</html>

```

## PHP SCRIPT #3

```

<html>
<head>
    <title>CPSC 332 - Project 1</title>
    <link href="./dist/output.css" rel="stylesheet">
</head>
<body>
    <header>
        <div class="navbar">
            <a href="http://ecs.fullerton.edu/~cs332f26" class="btn btn-ghost normal-
case text-xl bg-cyan-400">HOME</a>
        </div>
    </header>
    <?php
        $CNO = $_POST['CNO'];
        $CNO = strtoupper(json_encode($CNO)); // encode to JSON
        $dbServername = "mariadb";
        $dbUsername = "cs332f26";
    </?php>

```

```

$dbPassword = "6Kqjr0YR";
$dbName = "cs332f26";

// set connection
$con= mysqli_connect($dbServername, $dbUsername, $dbPassword, $dbName);

//check connection
if (!$con) {
    die('Could not connect: ' . mysql_error());
}

?>

<?php
    $sql = "SELECT C.NUMBER, S.SECTION_NUMBER, S.CLASSROOM, S.NUMBER_OF_SEATS,
        (
            SELECT GROUP_CONCAT(D.MEETING_DAY SEPARATOR ' ')
            FROM SECTION_MEETING_DAYS D
            WHERE D.SECTION_NUMBER=S.SECTION_NUMBER
        ) AS MEETING_DAYS,
        S.BEGINNING_TIME, S.ENDING_TIME,
        (
            SELECT COUNT(*)
            FROM ENROLLMENT E
            WHERE E.SECTION_NUMBER=S.SECTION_NUMBER
        ) AS TOTAL_ENROLLED
        FROM COURSE C, SECTION S
        WHERE C.NUMBER={ $CNO } AND C.NUMBER=S.CNUMBER;";

    $result = $con->query($sql);

?>

<div class="container">
<section class="title" id="title">
    <h2 class="title_header text-2xl antialiased py-2 pl-4">Result Output</h2>
</section>

<section class="input" id="input">
    <div class="input_data1">
        <div class="container2">

            <?php
                if ($result->num_rows > 0) {?>
                    <table class="table">

```

```

        <thead>
        <tr>
            <th scope="col">Course Number </th>
            <th scope="col">Section Number </th>
            <th scope="col">Classroom </th>
            <th scope="col">Meeting Days </th>
            <th scope="col">Time</th>
            <th scope="col">Total Enrolled / Seats Available</th>
        </tr>
    </thead>
    <tbody>
        <?php while($row = $result->fetch_assoc()) { ?>
            <tr>
                <td><?php echo $row["NUMBER"] ; ?></td>
                <td><?php echo $row["SECTION_NUMBER"] ; ?></td>
                <td><?php echo $row["CLASSROOM"] ; ?></td>
                <td><?php echo $row["MEETING_DAYS"] ; ?></td>
                <td><?php echo $row["BEGINNING_TIME"]
                    . ' - ' . $row["ENDING_TIME"] ;?></td>
                <td><?php echo $row["TOTAL_ENROLLED"]
                    . ' / ' . $row["NUMBER_OF_SEATS"] ;?></td>
            </tr>
        <?php } ?>
    </tbody>
</table>

<?php }
else {
    echo "0 results";
}??

<?php
$con->close();
?>
</div>
</div>
</section>
</div>
</body>

</html>

```

## PHP SCRIPT #4

```
<html>
<head>
  <title>CPSC 332 - Project 1</title>
</head>
<body>
  <header>
    <div class="navbar">
      <a href="http://ecs.fullerton.edu/~cs332f26" class="btn btn-ghost normal-
case text-xl bg-cyan-400">HOME</a>
    </div>
  </header>

  <?php
    $CWID = $_POST['CWID'];
    $dbServername = "mariadb";
    $dbUsername = "cs332f26";
    $dbPassword = "6Kqjr0YR";
    $dbName = "cs332f26";

    // set connection
    $con= mysqli_connect($dbServername, $dbUsername, $dbPassword, $dbName);

    //check connection
    if (!$con) {
      die('Could not connect: ' . mysql_error());
    }
  ?>

  <?php
    $sql = "SELECT S.FNAME, S.LNAME, C.NUMBER, C.TITLE, E.GRADE
            FROM ENROLLMENT E, STUDENT S, COURSE C
            WHERE E.CAMPUS_WIDE_ID={$CWID} AND E.CAMPUS_WIDE_ID=S.CAMPUS_WIDE_ID
AND C.NUMBER=E.CNUMBER;";

    $result = $con->query($sql);
  ?>

<fieldset>
<legend>Student</legend>

  <?php
```

```

        echo "Campus Wide ID: ", $CWID, "<BR>";
        if ($result->num_rows > 0) {?>
            <?php
                $row = $result->fetch_assoc();
                echo "<br>Name: ", $row["FNAME"], " ", $row["LNAME"], "<br>";
            ?>
            <?php foreach($result as $row) {
                echo "Course Number: ", $row["NUMBER"], "<br>";
                echo "Course Title: ", $row["TITLE"], "<br>";
                echo "Grade: ", $row["GRADE"], "<BR>", "<br>";
            } ?>
        <?php }
        else {
            echo "0 results", "<br>";
            echo "STUDENT NOT FOUND", "<br>";
        } ?>
    <?php
        $con->close();
    ?>
</fieldset>
</div>
<button onclick="goBack()">Go Back</button>

<script>
function goBack() {
    window.history.back();
}
</script>
</body>
</html>

```

## INTERFACES DEVELOPED

[HOME](#)

# CSUF Database

Professors and Students Information

Professors:

Social Security Number

SUBMIT

Course Number

Section Number

SUBMIT

Students:

Course Number

SUBMIT

Campus Wide ID

SUBMIT

## SAMPLE RUNS

### Run 1

[HOME](#)

# CSUF Database

Professors and Students Information

Professors:

Social Security Number

SUBMIT



HOME

Result Output

Hello, Professor John Smith

COURSE	SECTION	COURSE TITLE	CLASSROOM	MEETING DAYS	TIME
CPSC 131	12345	Data Structures	CS-101	Mon Wed	1:00 PM - 2:15 PM

Run 2

HOME

## CSUF Database

Professors and Students Information

Professors:

Social Security Number	<input type="text" value="999999999"/>
------------------------	--

SUBMIT

HOME

Result Output

Hello, Professor Richard Sanchez

COURSE	SECTION	COURSE TITLE	CLASSROOM	MEETING DAYS	TIME
MATH 150B	12101	Calculus II	H-205	Mon Wed	9:00 AM - 10:50 AM
MATH 150B	12102	Calculus II	H-205	Fri	1:00 PM - 2:50 PM

Run 3

HOME

# CSUF Database

Professors and Students Information

Professors:

Social Security Number

Please input 9 digit SSN

SUBMIT

Course Number

MATH 150A

Section Number

12001

SUBMIT

HOME

COURSE: MATH 150A

SECTION: 12001

GRADE	# OF STUDENTS
A+	1
A	1
A-	0
B+	0
B	0
B-	1
C+	0
C	0
C-	1
D+	0
D	1
D-	0
F	2
W	0

Run 4

HOME

# CSUF Database

Professors and Students Information

Professors:

Social Security Number

Please input 9 digit SSN

SUBMIT

Course Number

CPSC 131

Section Number

12345

SUBMIT

HOME

COURSE: CPSC 131

SECTION: 12345

GRADE	# OF STUDENTS
A+	1
A	0
A-	2
B+	0
B	0
B-	0
C+	0
C	1
C-	0
D+	0
D	0
D-	1
F	0
W	0

Run 5

Students:

Course Number

MATH 150B

SUBMIT

Campus Wide ID

Please input Campus Wide

SUBMIT

[HOME](#)

### Result Output

COURSE NUMBER	SECTION NUMBER	CLASSROOM	MEETING DAYS	TIME	TOTAL ENROLLED / SEATS AVAILABLE
MATH 150B	12101	H-205	Mon Wed	9:00 AM - 10:50 AM	2 / 30
MATH 150B	12102	H-205	Fri	1:00 PM - 2:50 PM	1 / 35

### Run 6

Students:

Course Number

CPSC 121

SUBMIT

[HOME](#)

### Result Output

COURSE NUMBER	SECTION NUMBER	CLASSROOM	MEETING DAYS	TIME	TOTAL ENROLLED / SEATS AVAILABLE
CPSC 121	12346	CS-102	Tues Thurs	11:00 AM - 12:15 PM	3 / 40
CPSC 121	12347	CS-102	Thurs Fri	2:00 PM - 3:15 PM	3 / 30

### Run 7

## Students:

Course Number

e.g MATH 150A

SUBMIT

Campus Wide ID

967656321

SUBMIT

### [HOME](#)

---

Student

Campus Wide ID: 967656321

Name: William Smith

Course Number: CPSC 121

Course Title: Object-Oriented Programming

Grade: A-

Course Number: CPSC 131

Course Title: Data Structures

Grade: A+

Course Number: MATH 150A

Course Title: Calculus I

Grade: A+

Course Number: MATH 150B

Course Title: Calculus II

Grade: D+

[Go Back](#)

**Run 8**

Students:

Course Number

e.g MATH 150A

SUBMIT

Campus Wide ID

181614121

SUBMIT

## HOME

Student

Campus Wide ID: 181614121

Name: Thomas Cruz

Course Number: CPSC 121

Course Title: Object-Oriented Programming

Grade: W

Course Number: MATH 150A

Course Title: Calculus I

Grade: D

Go Back