

# CPSC 5021: Database Systems

MySQL Connectivity

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# Open a Connection to MySQL

- Before we can access data in the MySQL database, we need to be able to connect to the server.

```
<?php
$servername = "cssql.seattleu.edu";
$username = "username";
$password = "password";

// Create connection
$conn = mysqli_connect($servername, $username, $password);

// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
echo "Connected successfully";
mysqli_close($conn);
?>
```

## Insert One Record

```
<?php
$servername = "cssql.seattleu.edu";
$username = "****";
$password = "****";
$dbname = "****";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

$sql = "INSERT INTO COURSES
VALUES ('CS460', 'Software Engineering', 'U4', 5)";

if (mysqli_query($conn, $sql)) {
    echo "New record created successfully";
} else {
    echo "Error: " . $sql . "<br>" . mysqli_error($conn);
}

mysqli_close($conn);
?>
```

```
<?php
```

```
$servername = "cssql.seattleu.edu";
```

```
$username = "****";
```

```
$password = "****";
```

```
$dbname = "****";
```

## Insert Multiple Records (example 1)

```
// Create connection
```

```
$conn = mysqli_connect($servername, $username, $password, $dbname);
```

```
// Check connection
```

```
if (!$conn) {
```

```
    die("Connection failed: " . mysqli_connect_error());
```

```
}
```

```
$sql = "INSERT INTO COURSES
```

```
VALUES ('CS420', 'Security', 'U4', 5),('CS310', 'Big Data', 'U3', 5);";
```

```
if (mysqli_query($conn, $sql)) {
```

```
    echo "New records created successfully";
```

```
} else {
```

```
    echo "Error: " . $sql . "<br>" . mysqli_error($conn);
```

```
}
```

```
mysqli_close($conn);
```

```
?>
```

## Insert Multiple Records (example 2)

```
<?php
$servername = "cssql.seattleu.edu";
$username = "****";
$password = "****";
$dbname = "****";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

$sql = "INSERT INTO COURSES
VALUES ('CS550', 'Algorithm', 'G1', 6)";
$sql .= "INSERT INTO COURSES
VALUES ('CS530', 'Distributed Systems', 'G2', 6)";

if (mysqli_multi_query($conn, $sql)) {
    echo "New records created successfully";
} else {
    echo "Error: " . $sql . "<br>" . mysqli_error($conn);
}

mysqli_close($conn);
?>
```

## Select Data (example 1)

```
<?php
$servername = "cssql.seattleu.edu";
$username = "****";
$password = "****";
$dbname = "****";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

$sql = "SELECT * FROM COURSES";
$result = mysqli_query($conn, $sql);

if (mysqli_num_rows($result) > 0) {
    // output data of each row
    while($row = mysqli_fetch_assoc($result)) {
        echo "Course Code: " . $row["courseCode"]. " | Course Name: " . $row["courseName"]. " | Series: " .
        $row["levels"]. " | Credits: " . $row["credits"] . "<br>";
    }
} else {
    echo "0 results";
}

// Free result set
mysqli_free_result($result);
mysqli_close($conn);
?>
```

```
<?php
$servername = "cssql.seattleu.edu";
$username = "****";
$password = "****";
$dbname = "****";

// Create connection
$conn = mysqli_connect($servername,
$username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " .
mysqli_connect_error());
}

$sql = "SELECT * FROM COURSES";
$result = mysqli_query($conn, $sql);
```

```
if (mysqli_num_rows($result) > 0) {
    echo "<table border = '1'>\n";
    // output data of each row
    echo "<tr>\n";
    echo "<th>Course Code</th>\n<th>Course
Name</th>\n";
    echo "</tr>\n";
    while($row = mysqli_fetch_row($result)) {
        echo "<tr>\n";
        echo "<td>" . $row[0] . "</td>\n" . "<td>".
$row[1] . "</td>\n";
        echo "</tr>\n";
    }
    echo "</table>\n";
} else {
    echo "0 results";
}
mysqli_free_result($result);
mysqli_close($conn);
?>
```



## Select Data (example 2)


```
<?php
$servername = "cssql.seattleu.edu";
$username = "****";
$password = "****";
$dbname = "****";

// Create connection
$conn = mysqli_connect($servername,
$username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " .
mysqli_connect_error());
}

$sql = "SELECT * FROM COURSES";
$result = mysqli_query($conn, $sql);
```

```
if (mysqli_num_rows($result) > 0) {
    echo "<table border = '1'>\n";
    // output data of each row
    while($row = mysqli_fetch_row($result)) {
        echo "<tr>\n";
        for ($i = 0; $i < mysqli_num_fields($result); $i++) {
            echo "<td>" . $row[$i] . "</td>\n";
        }
        echo "</tr>\n";
    }

    echo "</table>\n";
} else {
    echo "0 results";
}
mysqli_free_result($result);
mysqli_close($conn);
?>
```



## Select Data (example 3)



## Update Data

```
<?php
$servername = "cssql.seattleu.edu";
$username = "****";
$password = "****";
$dbname = "****";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

$sql = "UPDATE COURSES SET courseName = 'Computer Networks' WHERE
courseCode = 'CS420'";

if (mysqli_query($conn, $sql)) {
    echo "Record updated successfully";
} else {
    echo "Error updating record: " . mysqli_error($conn);
}

mysqli_close($conn);
?>
```

## Delete Data

```
<?php
$servername = "cssql.seattleu.edu";
$username = "****";
$password = "****";
$dbname = "****";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

$sql = "delete from COURSES where courseCode = 'CS420'";

if (mysqli_query($conn, $sql)) {
    echo "Record deleted successfully";
} else {
    echo "Error deleting record: " . mysqli_error($conn);
}

mysqli_close($conn);
?>
```

# PHP \$\_POST

- The \$\_POST variable is an array of variable names and values sent by the HTTP POST method.
- The \$\_POST variable is used to collect values from a form with method="post". Information sent from a form with the POST method is invisible to others and has no limits on the amount of information to send.

# PHP \$\_POST

```
<html>
<body>

<form action="welcome.php" method="post">
Name: <input type="text" name="name"><br>
E-mail: <input type="text" name="email"><br>
<input type="submit">
</form>

</body>
</html>
```

testwelcome.html

```
<?php
echo "Welcome " . $_POST["name"] . "<br>";
echo "Your email address is: " . $_POST["email"] . "<br>";
?>
```

welcome.php