# (Applications Development and Emerging Technologies)

**TECHNICAL-SUMMATIVE ASSESSMENT** 

3

# USER INTERFACES, SESSION AND COOKIES, MYSQL DATABASE AND RESET PASSWORD FEATURE

Student Name /	CUETO, Alexa Joyce G.		
Group Name:			
	Name	Role	
Members (if Group):			
Cootion	TW25	_	
Section:			
Professor:	Sir Joseph Calleja		
Piulessui.	•		

### I. PROGRAM OUTCOME/S (PO) ADDRESSED BY THE LABORATORY EXERCISE

 Design, implement and evaluate computer-based systems or applications to meet desired needs and requirements.

# II. COURSE LEARNING OUTCOME/S (CLO) ADDRESSED BY THE LABORATORY EXERCISE

Understand and apply best practices and standards in the development of website.

## III. INTENDED LEARNING OUTCOME/S (ILO) OF THE LABORATORY EXERCISE

At the end of this exercise, students must be able to:

- To apply the available super global variables for form processing and validation.
- To differentiate the use of \$\_GET, \$\_POST, and \$\_REQUEST super global variable in form processing and know when to use it.
- To differentiate the use of Session and Cookies for form security of a Web Site.
- To know the proper syntax for validating user inputs using Regular Expression.
- To provide a good background of Relational Database using MySQL.
- To know the importance of Database in Web Application using MySQL.
- To Identify the importance of Database Structure in constructing tables.
- To be familiar with the syntax in managing users and database.
- To define a good structure of tables in a given database for data storage.
- To be familiar in the common syntax of creating database and tables and the correct data type to be used for each field.

#### IV. BACKGROUND INFORMATION

# Superglobal variables

```
Example: Using GETs method
             <form action="<?php echo $_SERVER['PHP_SELF'] ?>" method="get">
                string: <input type="text" name="str" value="get value">
                <input type="submit" name="submit" value="submit get">
             </form>
             Using POST method
             <form action="<?php echo $_SERVER['PHP_SELF'] ?>" method="post">
                string: <input type="text" name="str" value="post value">
                <input type="submit" name="submit" value="submit post">
             </form>
                echo "<br/>GET value: ";
                if(isset($ GET['submit'])){
                    echo $_GET['str'];
                echo "<br/>POST value: ";
                if(isset($ POST['submit'])){
                    echo $_POST['str'];
                echo "<br/>REQUEST value: ";
                if(isset($ REQUEST['submit'])){
                    echo $_REQUEST['str'];
```

# **Cookies**

#### Example: PHPSetCookies.php

```
SET COOKIES

<?php
    setcookie("xcookie","value of x");
    setcookie("ycookie","value of y", time()+10);
    setcookie("zcookie","value of z", time()+3600);
?>
```

#### Example: PHPDisplayCookies.php

```
DISPLAY COOKIES

<?php
    echo "<pre>"; print_r($_COOKIE); echo "";
?>
```

#### Example: PHPDeleteCookies.php

```
DELETE COOKIES
<?php
    setcookie("zcookie","value of z", time()-3600);
?>
```

#### Output 1: cookies were set

```
Array
(
[xcookie] => value of x
[ycookie] => value of y
[zcookie] => value of z
```

DISPLAY COOKIES

#### Output 2: after 10 secs

# Output 3: delete cookies DISPLAY COOKIES

```
Array
(
    [xcookie] => value of x
)
```

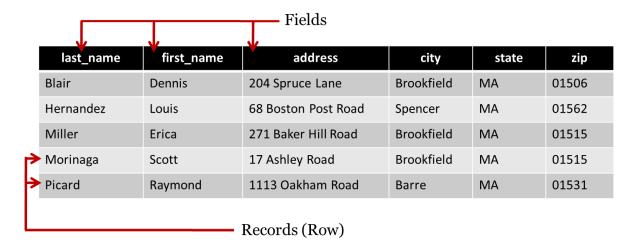
# Session

Example: PHPDisplaySession.php

Example: PHPDeleteSession.php

```
<?php
    session_start();
    session_destroy();
    header('location: PHPDisplaySession.php');
?>
```

# Example: Employee Directory DB



Also called as **flat-file database** that stores information in a single table.

- V. GRADING SYSTEM / RUBRIC (please see separate sheet)
- VI. LABORATORY ACTIVITY

# **Activity A**

 Create a registration module just like what is shown below. Using \$\_GET or \$\_POST get the data from the forms and display below. Integrate HTML and CSS.

My Personal Information
First Name
Chris
Middle Name
Rosales
Last Name
Tio
Username
Chris01
Password
12345
Confirm Password
12345
Birthday
January 30 1993
Email
chris@gmail.com
Contact Number
09325454562
Submit
© Crix Brix

Note: the Password and Confirm Password should be the same before it show the result otherwise show "password and confirm password are not the same".

Result after click the submit button, It will show the result at the bottom of the webpage:

Full Name: Chris Rosales Tio

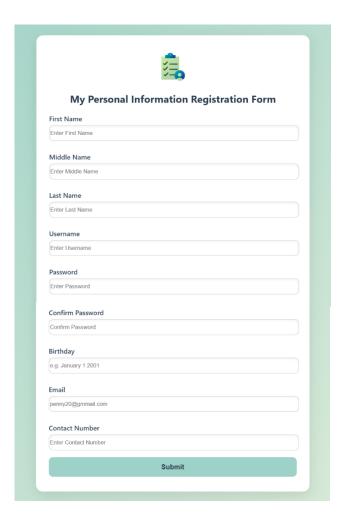
Username: Chris01 Password: 12345

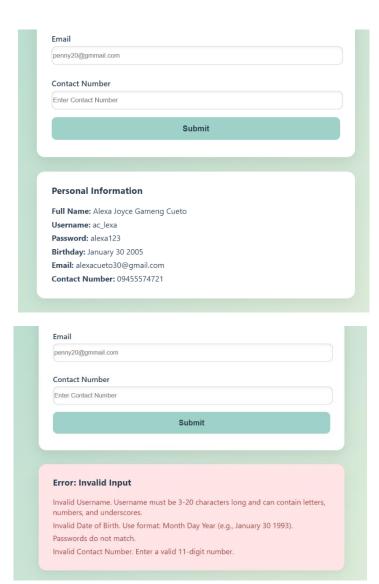
Birthday: January 30 1993 Email: chris@gmail.com

Contact Number: 09325454562

#### SOURCE CODE:

# **OUTPUT:**





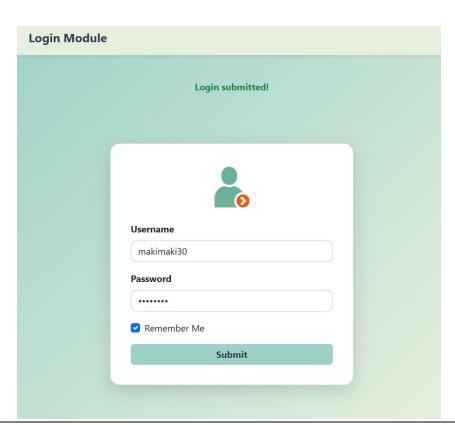
2. Create a login module just like what is shown below. Using setcookie() function, create cookies for the username and password. It must be saved in your web form if the remember me checkbox is checked only.

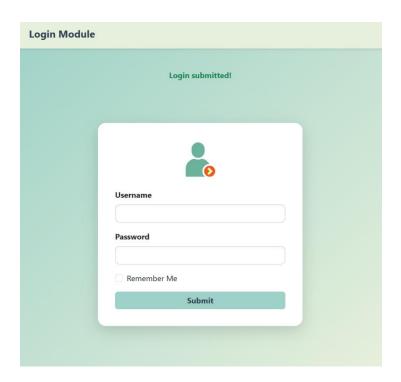


#### SOURCE CODE:

```
clipoctype html>
chtml lang="en">
chtml lang="en"
chtml lan
```

## **OUTPUT:**





3. Using the same login module, create a static variable that will hold your username and password. Get the value from the form and compare it. If the username and password matches, using \$\_SESSION, redirect the user to a homepage that will display your username stored in the session and a logout link that will redirect you to a logout.php containing session\_destroy() function. If you have an active session, the user by changing the url above cannot access other pages such us the index page, login and registration pages. If there are no active sessions, users cannot open the home.php (or pages that has logout link)

## SOURCE CODES:

Login.php

**Applications Development a** 

# Welcome.php

```
38
39
40
.container {
    background-color: □ #fffffff;
    border-radius: 12px;
    margin-top: 10px;
    padding: 40px 30px;
    box-shadow: 0 8px 20px □rgba(0, 0, 0, 0.1);
    text-align: center;
    max-width: 600px;
    width: 100%;
    margin-bottom: 40px;

50
}

h1 {
    color: □ #2c3e50;
    margin-bottom: 10px;

55
}

p {
    color: □ #34495e;
    font-size: 1.1rem;

60
}

clogout-btn {
    margin-top: 20px;
    background-color: □ #dc3545;
    color: white;
    padding: 10px 24px;
    border: none;
    border-radius: 8px;
    font-weight: bold;
    transition: background-color 0.3s;
    text-decoration: none;
```

```
Registration.php
```

Applications Developn

.nav-link {

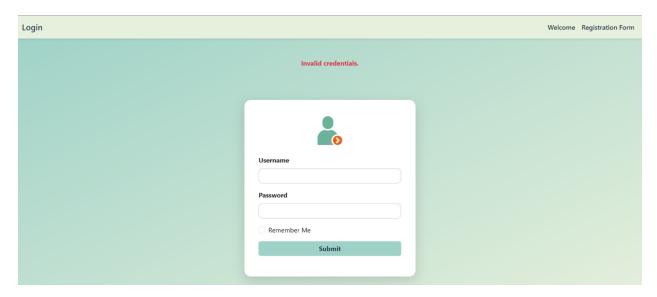
Page 16 of 40

```
| cdiv class="container-fluid">
| caclass="navbar-brand" href="#">
| caclass="navbar-loggler" type="button" data-bs-toggle="collapse" data-bs-target="#mavbarNav"
| aria-controls="navbanNav" aria-expanded="false" aria-label="Toggle navigation">
| caclass="navbar-toggler-icon">
| caclass="navbar-toggler-icon">
| caclass="navbar-toggler-icon">
| caclass="navbar-hav ms-auto">
| caclass="navbar-nav ms-auto">
| caclass="navbar-nav ms-auto">
| caclass="nav-item">
|
```

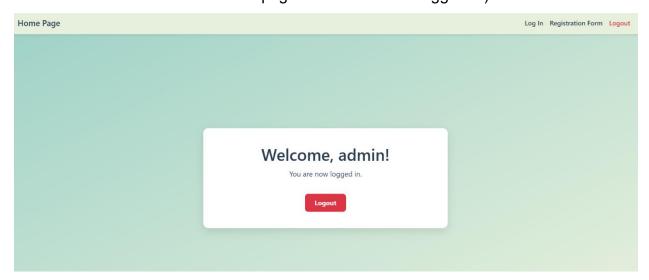
```
$\text{susername} = \text{trim(\$_POST["username"] ?? '');} \\
\text{spassword} = \text{trim(\$_POST["password"] ?? '');} \\
\text{sconfirm_password} = \text{trim(\$_POST["confirm_password"] ?? '');} \\
\text{sdob} = \text{trim(\$_POST["dob"] ?? '');} \\
\text{semail} = \text{trim(\$_POST["email"] ?? '');} \\
\text{scontact} = \text{trim(\$_POST["contact"] ?? '');} \\
\text{scontact} = \text{trim(\$_POST["contact"] ?? '');} \\
\text{svalid} = \text{true;} \\
\text{soft} = \text{if (!preg_match(\$nameValidation, \$fname)) {} \\
\text{syalid} = \text{false;} \\
\text{sfnameError} = \text{"Invalid First Name. Please use letters only.";} \\
\text{syalid} = \text{false;} \\
\text{syal
```

#### **OUTPUTS**:

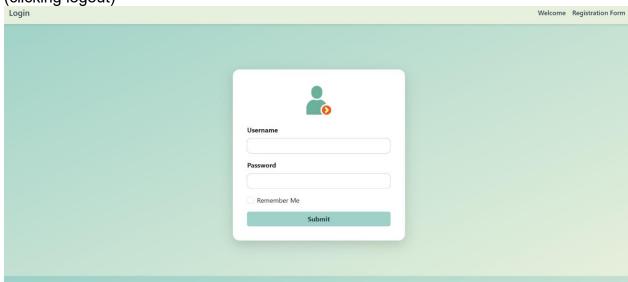
(when I inputted different username and password different from the ones that were declared)



(logging in as admin with password of admin123, hence clicking login and registration form directs me to the same home page once the user is logged in)



# (clicking logout)



# (clicking registration form)



# **Activity B**

1. Create a registration module just like what is shown below. Integrate HTML, CSS and PHP with MySQL.



Note: the Password and Confirm Password should be the same before it show the result otherwise show "password and confirm password are not the same".

Note: You will be using this form registration to input data then save to the database.

#### **SOURCE CODES:**

Regformdb.php

```
| border-radius: 10px; | box-shadow: inset 0 2px 4px □rgba(0, 0, 0, 0.05); | transition: border 0.3s ease, box-shadow 0.3s ease; | location: | locati
```

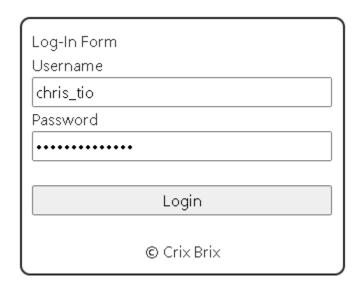
```
| .icon { | width: 60px; | height: 60px; | } | } | // style | // s
```

```
ch2>My Personal Information Registration Form</h2>
clabel>First Name</label>
cinput type="text" name="fname" placeholder="Enter First Name" required>
clabel>Middle Name</label>
cinput type="text" name="mname" placeholder="Enter Middle Name" required>
clabel>Last Name</label>
cinput type="text" name="lname" placeholder="Enter Middle Name" required>
clabel>Last Name</label>
cinput type="text" name="lname" placeholder="Enter Last Name" required>
clabel>Username</label>
cinput type="text" name="username" placeholder="Enter Username" required>
clabel>Password</label>
cinput type="password" name="password" placeholder="Enter Password" required>
clabel>Confirm Password</label>
cinput type="password" name="confirm_password" placeholder="Confirm Password" required>
clabel>Email</label>
cinput type="text" name="dob" placeholder="e.g. January 1 2001" required>
clabel>Email</label>
cinput type="text" name="email" placeholder="penny20@gmail.com" required>
clabel>Contact Number</label>
cinput type="text" name="email" placeholder="Enter Contact Number" required>
clabel>Contact Number</label>
cinput type="text" name="contact" placeholder="Enter Contact Number" required>
```

# (THE OUTPUTS OF 1, 2 AND 3 WILL BE DISPLAYED AFTER THE SOURCE CODES OF 1, 2, AND 3)

2. Using your credentials saved in your tables, it will be used to login in the system (create your own login page) include sessions in your webpages.

Example of Login page:



**SOURCE CODES:** 

# Logindb.php

```
.navbar-brand, .nav-link {
    color: #333;
    font-weight: bold;
}

.main-content {
    display: flex;
    justify-content: center;
    align-items: center;
    min-height: calc(100vh - 140px);
}

.login-form {
    max-width: 400px;
    width: 100%;
    background: #fff;
    padding: 30px;
    border-radius: 10px;
    box-shadow: 0 0 15px □rgba(0, 0, 0, 0.2);
    text-align: center;
}

.login-form img {
    width: 70px;
    height: 70px;
    margin-bottom: 20px;
}

.form-control {
    border-radius: 5px;
    border: 1px solid #ccc;
    margin-bottom: 15px;
}

.and

.
```

# Welcomedb.php

# Logoutdb.php

# (THE OUTPUTS OF 1, 2 AND 3 WILL BE DISPLAYED AFTER THE SOURCE CODES OF 1, 2, AND 3)

 User – Side Retrieval of Record Please see screenshot below for your guide.



#### Notes:

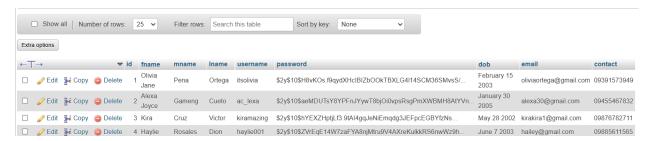
- Log-out link will destroy all sessions
- Enter current password should be the same with the old password, otherwise show a message "Current password is not the same with the old password"
- Enter new password and re-enter new password should be the same before it reset and save the new password, otherwise show a message "New password and Re-Enter new password should be the same."

#### **SOURCE CODES:**

```
cp>cstrong>welcome</strong> <?= htmlspecialchars($user['fname']," ".$user['nname']," ".$user['lname']) ?>
cp>cstrongsBirthday:</strong> <?= htmlspecialchars($user['dob']) ?>
cp>cstrong>Email:</strong> <?= htmlspecialchars($user['email']) ?>
cp>cstrong>Email:</strong> <?= htmlspecialchars($user['email']) ?>
chr>
cp>cstrong>RESET PASSWORD</strong>
contact:</strong> <?= htmlspecialchars($user['email']) ?>
ctrong>RESET PASSWORD</strong>
contact:</strong>
```

# (THE OUTPUTS OF 1, 2 AND 3 WILL BE DISPLAYED AFTER THE SOURCE CODES OF 1, 2, AND 3)

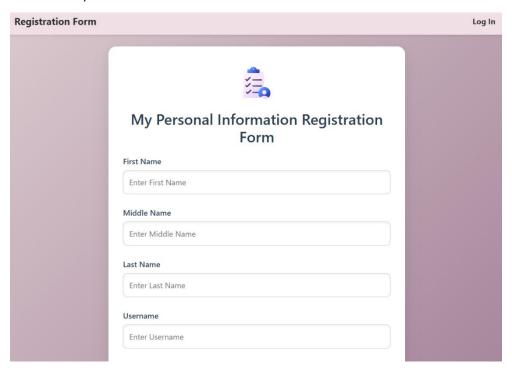
4. Screenshot the result of your database from the XAMPP.

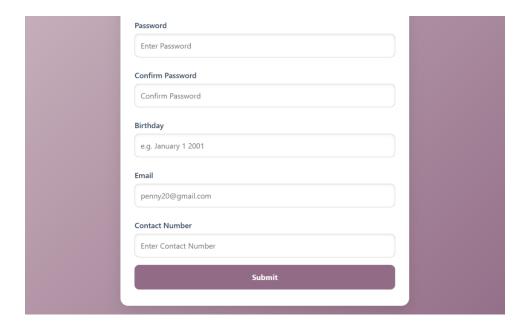


Snip and paste your source codes here. Snip it directly from the IDE so that colors of the codes are preserved for readability. Include additional pages if necessary.

# **OUTPUTS OF 1, 2 AND 3 OF ACTIVITY\_B**

# (1. registration form)





(after registration, a confirmation message will show)

Registration Successful!

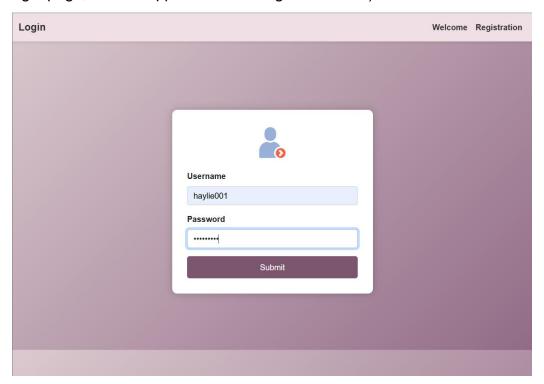
(invalid inputs)

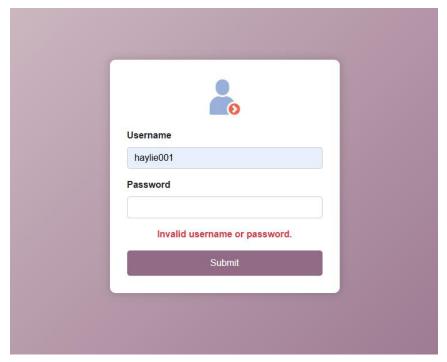
# **Error: Invalid Input**

Invalid Date of Birth. Use format: Month Day Year.
Invalid Password. At least 8 characters, 1 letter, 1 number.
Passwords do not match.

# (2. logindb.php)

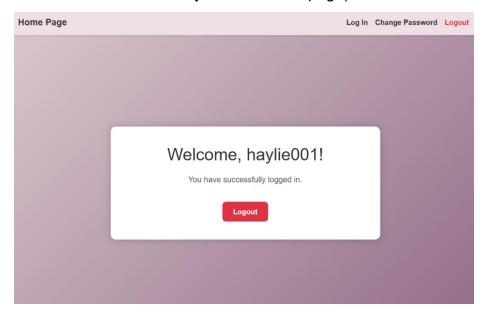
(if not yet logged in and the user clicks on the welcome in the navbar, the browser remains on the login page, but it is opposite on the registration link)





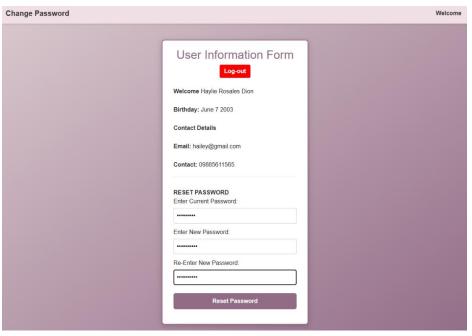
# (3. welcomed.php)

(login in the navbar when clicked still stays on the home page)

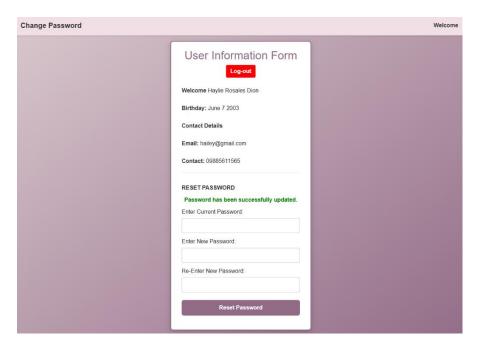


# (4. recordret.php)

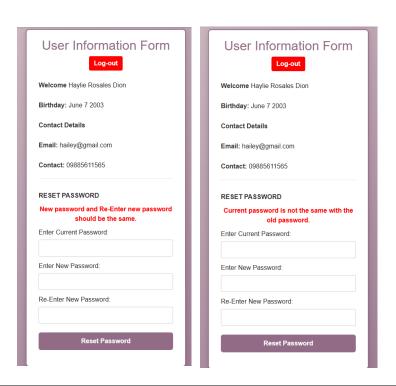
(the user is redirected here when they click change password in the navbar on the home page)



(after a successful change of password. If done, clicking the welcome in the navbar will redirect to the home page or clicking the logout will end the session)



(unsuccessful changes)



#### VII. QUESTION AND ANSWER

- 1. What are Super Global Variables?
  - -Super Global Variables in PHP are built-in variables that are accessible from any scope throughout a script. Examples include \$\_GET, \$\_POST, \$\_SESSION, and \$\_COOKIE, which help manage data across pages and requests.
- 2. Differentiate \$ GET, \$ POST, and \$ REQUEST
  - -\$\_GET collects data sent via URL parameters, visible in the browser address bar, and is limited in size. \$\_POST collects data sent through HTTP POST method, suitable for sensitive or large data, while \$\_REQUEST contains data from both \$ GET and \$ POST (and \$ COOKIE), combining them into one array.
- 3. What is Session?
  - -A session is a way to store information (variables) to be used across multiple pages by the same user during their visit. It uses a unique session ID to track the user's data on the server side, enabling persistent state in a stateless HTTP environment.
- 4. What is a Cookie?
  - -A cookie is a small piece of data stored on the user's browser by the web server to remember information between visits. Unlike sessions, cookies store data on the client side and can persist even after the browser is closed.
- 5. What is the importance of validation?
  - -Validation ensures that the data entered by users is correct, complete, and secure before processing or storing it. It helps prevent errors, security vulnerabilities, and improves data integrity.
- 6. What is database?
  - -A database is an organized collection of data stored electronically for easy access, management, and updating. It allows efficient storage and retrieval of information for applications and users.
- 7. What is the importance of database?
  - -Databases enable structured storage and quick retrieval of large amounts of data, supporting dynamic websites and applications. They ensure data consistency, security, and multi-user access control.
- 8. What is the good structure of a database?
  - -A good database structure organizes data into well-defined tables with clear relationships, using normalization to reduce redundancy. It includes primary keys, foreign keys, and indexes to ensure data integrity and efficient querying.

#### VIII. REFERENCES

- 1. https://www.w3schools.com/css/
- 2. https://www.w3schools.com/html/
- 3. https://www.w3schools.com/php/php\_variables.asp
- 4. https://www.w3schools.com/php/php\_superglobals\_globals.asp

- 5. <a href="https://www.w3schools.com/php/php">https://www.w3schools.com/php/php</a> superglobals post.asp
- 6. <a href="https://www.w3schools.com/php/php">https://www.w3schools.com/php/php</a> superglobals get.asp
- 7. <a href="https://www.w3schools.com/php/php">https://www.w3schools.com/php/php</a> superglobals request.asp
- 8. https://www.w3schools.com/php/php\_cookies.asp
- 9. <a href="https://www.w3schools.com/php/php">https://www.w3schools.com/php/php</a> sessions.asp
- 10. https://www.w3schools.com/php/php mysql intro.asp
- 11. https://www.w3schools.com/php/php mysql connect.asp
- 12. https://www.w3schools.com/php/php mysql create.asp
- 13. https://www.w3schools.com/php/php mysql create table.asp
- 14. https://www.w3schools.com/php/php mysql insert.asp
- 15. https://www.w3schools.com/php/php mysql insert multiple.asp
- 16. <a href="https://www.w3schools.com/php/php">https://www.w3schools.com/php/php</a> mysql select.asp
- 17. <a href="https://www.w3schools.com/php/php">https://www.w3schools.com/php/php</a> mysql select where asp
- 18. https://www.w3schools.com/php/php mysql select orderby.asp
- 19. https://www.w3schools.com/php/php mysql delete.asp
- 20. https://www.w3schools.com/php/php\_mysql\_update.asp
- 21. https://skillforge.com/how-to-create-a-database-using-phpmyadmin-xampp/

## Note: The following rubrics/metrics will be used to grade students' output.

Program (100 pts.)	(Excellent)	(Good)	(Fair)	(Poor)
Program execution (20pts)	Program executes correctly with no syntax or runtime errors (18-20pts)	Program executes with less than 3 errors (15- 17pts)	Program executes with more than 3 errors (12- 14pts)	Program does not execute (10- 11pts)
Correct output (20pts)	Program displays correct output with no errors (18- 20pts)	Output has minor errors (15-17pts)	Output has multiple errors (12-14pts)	Output is incorrect (10-11pts)
Design of output (10pts)	Program displays more than expected (10pts)	Program displays minimally expected output (8-9pts)	Program does not display the required output (6-7pts)	Output is poorly designed (5pts)

Design of logic (20pts)	Program is logically well designed (18-20pts)	Program has slight logic errors that do no significantly affect the results (15-17pts)	Program has significant logic errors (3-5pts)	Program is incorrect (10-11pts)
Standards (20pts)	Program code is stylistically well designed (18-20pts)	Few inappropriate design choices (i.e. poor variable names, improper indentation) (15-17pts)	Several inappropriate design choices (i.e. poor variable names, improper indentation) (12-14pts)	Program is poorly written (10-11pts)
Delivery (10pts)	The program was delivered on time. (10pts)	The program was delivered a day after the deadline. (8-9pts)	The program was delivered two days after the deadline. (6-7pts)	The program was delivered more than two days after the deadline. (5pts)