

MODUL 7

DATABASE

LABORATORIUM FKTI JURUSAN TEKNIK INFORMATIKA UNIVERSITAS MULAWARMAN

1.1 RINGKASAN

Database digunakan untuk menyimpan data pada aplikasi. Database terdiri dari satu atau banyak table dan setiap table terdiri dari baris dan kolom. Untuk memanipulasi database, PHP memiliki perintah-perintah yang digunakan untuk mengeksekusi SQL.

1.2 LATIHAN

Latihan pada pada praktikum ini secaumum mencakup koneksi database, menjalankan perintah SQL dan mengambil keluaran dari perintah tersebut.

1) Koneksi database

```
1. <?php
2. $servername = "localhost";
3. $username = "root";
4. $password = "";
5.
6. // Create connection
7. $conn = mvsali connect($servername, $username, $password);
8.
9. // Check connection
10. if (!$conn) {
11.     die("Connection failed: " . mysqli connect error());
12. }
13. echo "Connected successfully";
14. ?>
```

2) Insert data pada table

```
1. <?php
2. $servername = "localhost";</pre>
3. $username = "root";
4. $password = "";
5. $dbname = "myDB";
6.

    7. // Create connection
    8. $conn = mysqli connect($servername, $username, $password, $dbname);

9. // Check connection
10. if (!$conn) {
        die("Connection failed: " . mysqli connect error());
11.
12. }
13.
14. $sql = "INSERT INTO MyGuests (firstname, lastname, email)
15. VALUES ('John', 'Doe', 'john@example.com')";
17. if (mysqli query($conn, $sql)) {
        echo "New record created successfully";
18.
19. } else {
        echo "Error: " . $sql . "<br>" . mysqli_error($conn);
20.
21. }
22.
23. mysqli_close($conn);
```

3) Mendapatkan ID dari data yang dimasukan

```
1. <?php
2. $servername = "localhost";
3. $username = "root";
4. $password = "";
5. $dbname = "myDB";
6.

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

9. // Check connection
10. if (!$conn) {
11. die("Connection failed: " . mysqli_connect_error()); 12. }
13.
14. $sql = "INSERT INTO MyGuests (firstname, lastname, email)
15. VALUES ('John', 'Doe', 'john@example.com')";
16.
        if (mysqli_query($conn, $sql)) {
18.
        $last_id = mysqli_insert_id($conn);
        echo "New record created successfully. Last inserted ID
19.
        is: " . $last id;
20.
        } else {
21.
        echo "Error: " . $sql . "<br>" . mysqli_error($conn);
22.
23.
        mysqli_close($conn);
24.
        ?>
```

4) Eksekusi multiple Kueri

```
1. <?php
2. $servername = "localhost";
3. $username = "root";

    $password = "";
    $dbname = "myDB";

6.
7. // Create connection
8. $conn = mysqli connect($servername, $username, $password, $dbname);
9. // Check connection
10. if (!$conn) {
11. die("Connection failed: " . mysqli_connect_error()); 12. }
14. $sql = "INSERT INTO MyGuests (firstname, lastname, email)
15. VALUES ('John', 'Doe', 'john@example.com');";
16. $sql .= "INSERT INTO MyGuests (firstname, lastname, email)
   17. VALUES ('Mary', 'Moe', 'mary@example.com');";
18. $sql .= "INSERT INTO MyGuests (firstname, lastname, email)
19. VALUES ('Julie', 'Dooley', 'julie@example.com')";
20.
21. if (mysqli_multi_query($conn, $sql)) {
22.
        echo "New records created successfully";
23.
       } else {
       echo "Error: " . $sql . "<br>" . mysqli_error($conn);
24.
25.
26.
       mysqli close($conn);
27.
```

5) Select Data

```
1. <?php
2. $servername = "localhost";
3. $username = "root";
4. $password = "";
5. $dbname = "myDB";
6.

    7. // Create connection
    8. $conn = mysqli connect($servername, $username, $password, $dbname);

9. // Check connection
10. if (!$conn) {
        die("Connection failed: " . mysqli connect error());
11.
12. }
13.
14. $sql = "SELECT id, firstname, lastname FROM MyGuests";
15. $result = mysqli_query($conn, $sql);
17. if (mysqli num rows($result) > 0) {
18. // output data of each row
19.
        while($row = mysqli fetch assoc($result)) {
 0. echo "id: " . $row["id"]. " -
Name: " . $row["firstname"]. " " . $row["lastname"]. "<br>":
20.
21.
    }
22. } else {
23.
      echo "0 results";
24. }
25.
26. mysqli close($conn);
27. ?>
```

6) Hapus Data

```
1. <?php
2. $servername = "localhost";
3. $username = "root";
4. $password = ""; 5. $dbname = "myDB";
6.
7. // Create connection
8. $conn = mysqli_connect($servername, $username, $password, $dbname); 9.
   // Check connection
10. if (!$conn) {
11.
       die("Connection failed: " . mysqli_connect_error());
12.}
13.
14. // sql to delete a record
15. $sql = "DELETE FROM MyGuests WHERE id=3";
16.
17. if (mysqli_query($conn, $sql)) {
18. echo "Record deleted successfully";
20. echo "Error deleting record: " . mysqli_error($conn);
21. }
22.
23. mysqli close($conn);
24. ?>
25. <?php
26. $servername = "localhost";
27. $username = "root";
28. $password = "";
```

```
29. $dbname = "myDB";
30.
31. // Create connection
32. $conn = mysqli_connect($servername, $username, $password, $dbname);
33. // Check connection
34. if (!$conn) {
35.
       die("Connection failed: " . mysqli_connect_error());
36.}
37.
38. // sql to delete a record
39. $sql = "DELETE FROM MyGuests WHERE id=3";
40.
41. if (mysqli_query($conn, $sql)) {
42. echo "Record deleted successfully";
43. } else {
44. echo "Error deleting record: " . mysqli_error($conn);
45.}
46.
47. mysqli_close($conn);
48. ?>
```

7) Ubah Data

```
1. <?php
2. $servername = "localhost";</pre>
3. $username = "root";
4. $password = "";
5. $dbname = "myDB";
6.
7. // Create connection
8. $conn = mysqli connect($servername, $username, $password, $dbname);
9. // Check connection
10. if (!$conn) {
11.
        die("Connection failed: " . mysqli connect error());
12. }
13.
14. $sql = "UPDATE MyGuests SET lastname='Doe' WHERE id=2";
16. if (mysqli_query($conn, $sql)) {
        echo "Record updated successfully";
19. echo "Error updating record: " . mysqli_error($conn); 20. }
22. mysqli_close($conn);
23. ?>
```

8) Prepared Statement dan Bound Parameter

```
1. <?php
2. $servername = "localhost";
3. $username = "root";
4. $password = "";
5. $dbname = "myDB";
6.
7. // Create connection
8. $conn = new mysqli($servername, $username, $password, $dbname);
9.
10. // Check connection
11. if ($conn->connect error) {
12.     die("Connection failed: " . $conn->connect_error);
13. }
14.
```

```
15. // prepare and bind
16. $stmt = $conn-
    >prepare("INSERT INTO MyGuests (firstname, lastname, email) VALUES (?, ?, ?)");
17. $stmt->bind_param("sss", $firstname, $lastname, $email);
19. // set parameters and execute
20. $firstname = "John";
21. $lastname = "Doe";
22. $email = "john@example.com";
23. $stmt->execute();
24.
25. $firstname = "Mary";
26. $lastname = "Moe";
27. $email = "mary@example.com";
28. $stmt->execute();
30. $firstname = "Julie";
31. $lastname = "Dooley";
32. $email = "julie@example.com";
33. $stmt->execute();
34.
35. echo "New records created successfully";
37. $stmt->close();
38. $conn->close();
39. ?>
```

Buatlah sebuah web pendataan sederhana yang mempunyai crud yaitu bisa di tambah, di ubah , dan di hapus.