

```

QS1
BMI
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>QS1</title>
</head>
<body>
Height (cm): <input type="text" id="txt1"><br>
Weight (lb): <input type="text" id="txt2"><br>
<button onclick="calculate()">Calculate </button><br>
Calculate Result: <label id="lbl1"></label>
<br>
Status: <label id="lbl2"></label>
<script>
function calculate() {
let height = Number(document.getElementById("txt1").value);
let weight = Number(document.getElementById("txt2").value);
let CalResult = (weight / 2.20462) / ((height / 100) * (height / 100));
document.getElementById("lbl1").innerText = CalResult.toFixed(3);
let status = "";
if (CalResult > 0 && CalResult < 20) {
status = "Bad";
} else if (CalResult >= 20 && CalResult < 30) {
status = "not Bad";
} else if (CalResult >= 30) {
status = "good";
}
document.getElementById("lbl2").innerText = status;
}
</script>
</body>
</html>
QS2
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>User Info</title>
</head>
<body>
<form method="POST" action="">
Seed Value: <input type="text" name="seed" required><br>
Terms: <input type="number" name="terms" required><br>
<input type="submit" value="Generate Sequence">
</form>
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
$seed = (int) $_POST['seed'];
$terms = (int) $_POST['terms'];
$sequence = [];
$current = $seed;
for ($i = 0; $i < $terms; $i++) {
$sequence[] = $current;
$sum = 0;
$digits = str_split((string)$current);
foreach ($digits as $d) {
$sum += (int)$d;
}
$current += $sum;
}
echo "<h3>Generated Sequence (Sum of digits):</h3>";
echo implode(" ", $sequence);
}
?>
</body>
</html>
QS3
BIL.html
<!DOCTYPE html>
<html>
<head>
```

```

<title>Electricity Bill Calculator</title>
</head>
<body>
<h2>Electricity Bill Form</h2>
<form method="POST" action="bill.php">
<label>Location:</label>
<select name="location" required>
<option value="Dhaka">Dhaka</option>
<option value="Chittagong">Chittagong</option>
</select><br><br>
<label>Area:</label><br>
<input type="radio" name="area" value="Urban" required> Urban
<input type="radio" name="area" value="Rural"> Rural<br><br>
<label>Unit Consumed:</label>
<input type="number" name="unit" required><br><br>
<input type="submit" value="Calculate Bill">
</form>
</body>
</html>
Bil.php
<?php
// DB Connection using variables
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "electricity_bill";

$conn = new mysqli($servername, $username, $password, $dbname);
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
// Get POST data
$location = $_POST['location'];
$area = $_POST['area'];
$unit = (int)$ _POST['unit'];
// Fetch rate for location and area
$sql = "SELECT * FROM bill_info WHERE location='$location' AND area='$area'";
$result = $conn->query($sql);
if ($result->num_rows > 0) {
    $row = $result->fetch_assoc();
    // Get appropriate rate based on unit range
    if ($unit <= 75) {
        $rate = $row['rate_0_75'];
    } elseif ($unit <= 200) {
        $rate = $row['rate_76_200'];
    } else {
        $rate = $row['rate_201_above'];
    }
    $base_bill = $unit * $rate;
// Apply tax
$tax_rate = 0;
if ($location == "Dhaka") {
    $tax_rate = 0.20;
} elseif ($location == "Chittagong") {
    $tax_rate = 0.15;
}
$tax_amount = $base_bill * $tax_rate;
$total_bill = $base_bill + $tax_amount;
// Output the result
echo "<h2>Electricity Bill</h2>";
echo "Your Location: <strong>$location</strong><br>";
echo "Your Area: <strong>$area</strong><br>";
echo "Unit Consumed: <strong>$unit</strong><br>";
echo "Total Bill (including tax): <strong>" . number_format($total_bill, 2) . " BDT</strong>";
} else {
    echo "No rate found for location '$location' and area '$area'.";
}
$conn->close();
?>
DATABASE Insert
INSERT INTO employess (email, phone_number, hire_date, job_id, salary)
VALUES
('SKING', '515.123.4567', '1987-06-17', 'AD_PRES', 24000.00),

Database Update
UPDATE employee
```

```
SET salary = salary * 1.175
WHERE join_date = (SELECT MAX(join_date) FROM employee);
```

```
UPDATE employess
SET salary = salary * (0.9) // (1-10/100)
WHERE salary>10000;
```

```
UPDATE employess
SET salary = salary * (0.9) //(1+10/100)
WHERE salary<=10000;
```

## DB CRUD

```
<?php
// DB Connection using variables
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "your_database_name"; // Change this to your DB name
$conn = new mysqli($servername, $username, $password, $dbname);
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
```

### // 1. INSERT Example

```
$sql_insert = "INSERT INTO employess (email, phone_number, hire_date,
job_id, salary)
VALUES ('john@example.com', '1234567890', '2025-07-10', 'DEV001',
15000)";
if ($conn->query($sql_insert) === TRUE) {
    echo "New record inserted successfully.<br>";
} else {
    echo "Error inserting record: " . $conn->error . "<br>";
}
```

### // 2. UPDATE Example

```
$sql_update = "UPDATE employess SET salary = 18000 WHERE id = 1";
if ($conn->query($sql_update) === TRUE) {
    echo "Record updated successfully.<br>";
} else {
    echo "Error updating record: " . $conn->error . "<br>";
}
```

### // 3. DELETE Example

```
$sql_delete = "DELETE FROM employess WHERE id = 2";
if ($conn->query($sql_delete) === TRUE) {
    echo "Record deleted successfully.<br>";
} else {
    echo "Error deleting record: " . $conn->error . "<br>";
}
```

### // 4. SELECT (Fetch) Example

```
$sql_select = "SELECT * FROM employess";
$result = $conn->query($sql_select);
if ($result->num_rows > 0) {
    echo "<table border='1' cellpadding='5'>";
    echo "<tr><th>ID</th><th>Email</th><th>Phone Number</th><th>Hire
Date</th><th>Job ID</th><th>Salary</th></tr>";
    while ($row = $result->fetch_assoc()) {
        echo "<tr>
<td>" . $row["id"] . "</td>
<td>" . $row["email"] . "</td>
<td>" . $row["phone_number"] . "</td>
<td>" . $row["hire_date"] . "</td>
<td>" . $row["job_id"] . "</td>
<td>" . $row["salary"] . "</td>
</tr>";
    }
    echo "</table>";
} else {
    echo "No records found.";
}
$conn->close();
?>
```

## JS

### // Declare variables

```
let name = "John";
const PI = 3.14;
var age = 25; // old way, avoid if possible
```

### // Functions

```
function greet(user) {
    return "Hello, " + user + "!";
}
```

### // Conditionals

```
if (age >= 18) {
    console.log("Adult");
} else {
    console.log("Minor");
}
```

### // Loops

```
for (let i = 0; i < 5; i++) {
    console.log(i);
}
```

### // Arrays

```
let fruits = ["apple", "banana", "cherry"];
console.log(fruits[0]); // apple
```

### // Objects

```
let person = {
    name: "Alice",
    age: 30,
};
console.log(person.name); // Alice
```

### // Events (in browser)

```
document.getElementById("btn").onclick = function () {
    alert("Button clicked!");
};
```

## PHP

### <?php

#### // Variables

```
$name = "John";
$age = 25;
$pi = 3.14;
```

#### // Echo output

```
echo "Hello, " . $name . "!<br>";
```

### // Functions

```
function greet($user) {
    return "Hello, " . $user . "!";
}
```

```
echo greet("Alice");
```

### // Conditionals

```
if ($age >= 18) {
    echo "Adult<br>";
} else {
    echo "Minor<br>";
}
```

### // Loops

```
for ($i = 0; $i < 5; $i++) {
    echo $i . "<br>";
}
```

### // Arrays

```
$fruits = array("apple", "banana", "cherry");
echo $fruits[0]; // apple
```

### // Associative Arrays (like objects)

```
$person = array(
    "name" => "Alice",
    "age" => 30
);
echo $person["name"]; // Alice
```

### // Superglobals (to get form data)

```
$name = $_POST['name'] ?? "";
echo "Form input: " . $name;
?>
```