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<?php
//1. Basic syntax & comments echo "<h2>Welcome to
PHP Beginner Code!</h2>"; // Single-line comment /* 
Multi-line comment */

// 2. Variables & Data Types
$name = "Junaid";
$age = 23;
$height = 5.9;
$is_student = true;

echo "Name: $name <br> Age: $age <br> Height:
$height <br> Student: " . ($is_student ? "Yes" : "No") .
"<br>";

// 3. Constants
define("SITE_NAME", "MyPHPPPracticeSite");
echo "Website: " . SITE_NAME . "<br>";

// 4. Arrays
$fruits = ["Apple", "Banana", "Mango"];
echo "Fruit: " . $fruits[1] . "<br>";

$marks = ["Math" => 90, "English" => 85];
echo "English Marks: " . $marks["English"] . "<br>";

// 5. Conditional Statements
if ($age > 18) {
    echo "You're an adult.<br>";
} else {
    echo "You're a minor.<br>";
}

switch ($name) {
    case "Junaid":
        echo "Hi, Junaid!<br>";
        break;
    default:
        echo "Who are you?<br>";
}

// 6. Loops
echo "For loop: ";
for ($i = 1; $i <= 3; $i++) echo "$i ";
echo "<br>";

echo "While loop: ";
$j= 1;
while ($j <= 3) {
    echo "$j ";
    $j++;
}

<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "myDB";
$conn = new mysqli($servername, $username, $password,
$dbname);
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
$sql = "SELECT * FROM student_final";
$result = $conn->query($sql);
if ($result->num_rows > 0) {
    $A = 0;
    $B = 0;
    $C = 0;
    while($row = $result->fetch_assoc()) {
        if ($row['LetterGrade'] == 'A') {
            $A++;
        }
        else if ($row['LetterGrade'] == 'B') {
            $B++;
        }
        else if ($row['LetterGrade'] == 'C') {
            $C++;
        }
    }
    echo "A: $A - B: $B - C: $C";
} else {
    echo "0 results";
}
$conn->close();
?>

echo "<br>";

echo "Foreach loop: ";
foreach ($fruits as $fruit) echo "$fruit ";
echo "<br>";

// 7. Functions
function greet($person) {
    return "Hello, $person!<br>";
}
echo greet("Visitor");

// 8. Superglobals ($_GET, $_POST)
?> <form action = "Next.php"
method="post">
    Your Name: <input type="text" name="user"><input
type="submit" value="Submit"><br>
</form>
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST"
&& isset($_POST['user'])) {
    echo "Hello, " . htmlspecialchars($_POST['user']) .
"<br>";
}

// 9. Sessions & Cookies
session_start();
$_SESSION["user"] = $name;
setcookie("visitor", $name, time() + 3600);
echo "Session user: " . $_SESSION["user"] . "<br>". echo "Cookie visitor: " . $_COOKIE["visitor"] ?? "Not set" . "<br>";

<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "uiuweb_final";
$conn = new mysqli($servername, $username, $password,
$dbname);
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
$sql = "SELECT * FROM student_final";
$result = $conn->query($sql);

if ($result->num_rows > 0) {
    while ($row = $result->fetch_assoc()) {
        if ($row['Grade'] < 75 && $row['LetterGrade'] != 'D') {
            $sql2 = "UPDATE student_final
                SET LetterGrade = 'C'
                WHERE StudentID = $row['StudentID']";

            if ($conn->query($sql2)) {
                echo "Changed Letter Grade to C for Student ID
$row['StudentID']<br>";
            } else {
                echo "Update failed for Student ID {$studentId}: " .
$conn->error . "<br>";
            }
        }
    }
}

if (empty($result)) {
    echo "0 results";
}

$conn->close();
?>

```

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// 1. Variables and Data Types [Java Script]
let name = "Junaid"; const age = 23; var isStudent = true;
let hobbies = ["coding", "football", "reading"]; let person = {
name: "Junaid", age: 23 };

PHP 3:
$sql   = "SELECT * FROM student_final";
$result = $conn->query($sql);

if ($result->num_rows > 0) {

    while ($row = $result->fetch_assoc()) {
        $current = (int)$row['Grade'];
        if ($current > 80 && ($current + 5) <= 90) {
            $studentId = (int)$row['StudentID'];
            $newGrade = $current + 5;

            $sql2 = "UPDATE student_final SET Grade =
$newGrade WHERE StudentID = $studentId";
            if ($conn->query($sql2)) {
                echo "Added +5 to Student ID {$studentId} (old:
{$current}, new: {$newGrade})<br>";
            } else {
                echo "Update failed for Student ID {$studentId}";
            }
        }
    }
}

} else {
    echo "0 results";
}
}

PHP 4:
$sql = "SELECT CourseTitle, COUNT(*) AS NumStudents
        FROM student_final
        GROUP BY CourseTitle
        ORDER BY NumStudents DESC, CourseTitle ASC";

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

if ($result && $result->num_rows > 0) {
    while ($row = $result->fetch_assoc()) {
        echo $row['CourseTitle'] . " — Students: " .
(int)$row['NumStudents'] . "<br>";
    }
} else {
    echo "0 results";
}

$conn->close();
?>

```

#### Password check

```

<?php
$password="8rn484$$"; // change this to test other
passwords

if(
    strlen($password) >= 8 &&           // at least 8
characters
    preg_match("/[A-Z]/", $password) &&     // has
uppercase
    preg_match("/[a-z]/", $password) &&     // has
lowercase
    preg_match("/[0-9]/", $password) &&     // has
number
    preg_match("/[W]/", $password)           // has
specialcharacter
){
    echo"✅Strong password";
} else {
    echo"❌Weak password";
}
?>

```

```

functioncheckPasswordStrength() {
    letpassword =
document.getElementById("password").value;
    letmessage = "";

    if(password.length < 8) {
        message = "❌ Too short";
    }elseif(!/[A-Z]/.test(password)) {
        message = "❌ Add an uppercase letter";
    }elseif(!/[a-z]/.test(password)) {
        message = "❌ Add a lowercase letter";
    }elseif(!/[0-9]/.test(password)) {
        message = "❌ Add a number";
    }elseif(!/[W]/.test(password)) {
        message = "❌ Add a special character";
    } else {
        message = "✅ Strong password";
    }

    document.getElementById("js-result").innerHTML =
message;
}

// 6. Arrays and Methods
hobbies.push("music");
hobbies.forEach((hobby, index) => {
    console.log(`Hobby ${index + 1}: ${hobby}`);
});
```

