

Week 04

Full Stack Development

(5CS045)

1) Basic Output & Conditional Logic

Create a PHP script that prints:

- Your name
- Today's date
- Whether the current hour is morning, afternoon, or evening

Use `date()` and an if-elseif-else block.

2) Temperature Decision Program

Write a script with a variable `$temp`.

Based on its value, print:

- “Cold” if below 15
- “Warm” if between 15 and 30
- “Hot” if above 30

3) Multiplication Table Generator (Loop Logic)

Ask the user for a number using a form.

When submitted, generate its multiplication table (1 to 10) using a for loop.

4) Reverse a String Without Built-in Functions

Ask the user for a word.

Reverse the string manually using a loop.
(Do not use strrev().)

5) Count the Number of Vowels

Ask the user for any sentence.

Count and display the number of vowels (a, e, i, o, u).

6) Create a Mini “User Info” Preview Form

Create a form that takes:

- Name
- Age
- Favorite Programming Language

After submission, show a preview message only. Validation needed.

7) Basic Form Validation – Required Fields

Create a form with:

- Full Name
- Email

If any are empty, show a red error. If filled, show a green “All good!”

8) Manual Email Format Check (Without filter_var)

Ask the user for an email. Check manually that:

- It contains “@”
- It contains “.”

- The "@" is not the first character

If not, show "Email format incorrect (basic check)."

9) Password Rule Validator (No Confirm Field)

Form input: password.

Rules:

- Minimum 8 characters
- Must include at least one number
- Must include at least one special character

Show messages depending on which rules fail.

10) Simple Calculator Using Switch Case

Take two numbers and an operation input: add, subtract, multiply, or divide. Use a switch statement to calculate the correct result.

11) Array Search Logic (Email Finder)

Given this array:

```
$users = [  
    ["email" => "ram@gmail.com"],  
    ["email" => "sita@gmail.com"],  
    ["email" => "hari@gmail.com"]  
];
```

Check if a variable \$newEmail exists in this array.
Display "Email already exists" or "Email available".

12) JSON Reading Exercise (Do Not Write Anything)

Create a products.json file:

```
[  
  {"name": "Keyboard", "price": 1500},  
  {"name": "Mouse", "price": 700}  
]
```

Write PHP code to read the JSON file, convert it into an array, and display all products.

13) Build a “Registration Preview Only” Screen

Create a form:

- Name
- Email
- Password
- Confirm Password

Validate all fields.

If valid, show a preview section like:

Registration Preview:

Name: ...

Email: ...

Password Strength: Strong/Weak

14) Convert Array to JSON (But Do Not Save It)

Take this array:

```
$data = [
```

```
"username" => "student123",
"role" => "learner",
"active" => true
];
```

Convert it to JSON using `json_encode()` and display the JSON string on the webpage.

15) Generate a Random 6-Digit OTP

Create a script that prints a random 6-digit OTP each time the page loads.

16) Simulate a Simple Login (Validation Only)

Create a form with:

- Username
- Password

Check if:

- Username = “admin”
- Password = “1234@admin”

If correct → “Welcome Admin”

If not → “Invalid credentials”