Introduction to PHP Programming

Learning Objectives

-Describe what PHP is and how it works in web development

-Write basic PHP scripts using variables and output

-Use conditional statements and loops to control program flow

-Create simple PHP functions to organize reusable code

What is PHP?

- PHP PHP: Hypertext Preprocessor
- A popular server-side scripting language
- Used to create dynamic websites and web applications
- Embedded inside HTML and runs on a web server (like XAMPP)

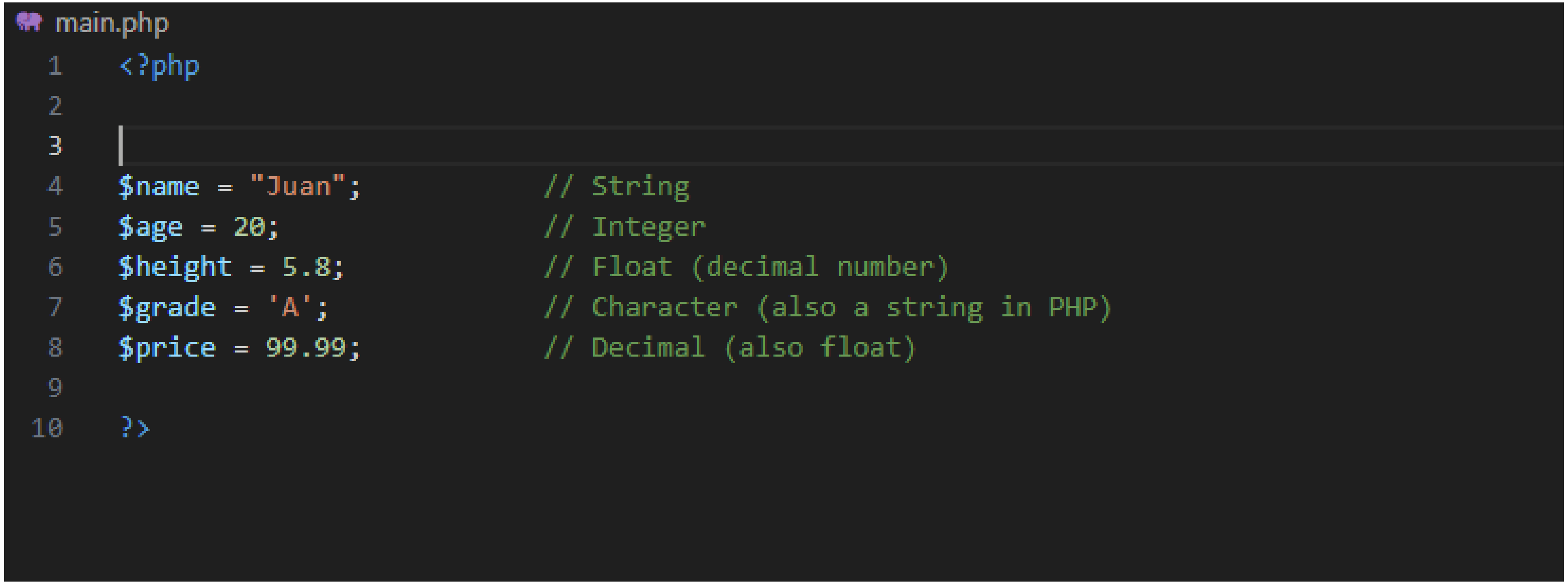
Why Learn PHP?

- Powers popular platforms (WordPress, Facebook originally used PHP)
- Simple and beginner-friendly
- Works well with HTML and MySQL
- Prepares you for building real-world systems

Setting Up Your PHP Environment

- Download and install XAMPP
- Save .php files inside htdocs/ folder
- Start Apache to run your server or go to terminal php filename.extension

VARIABLES

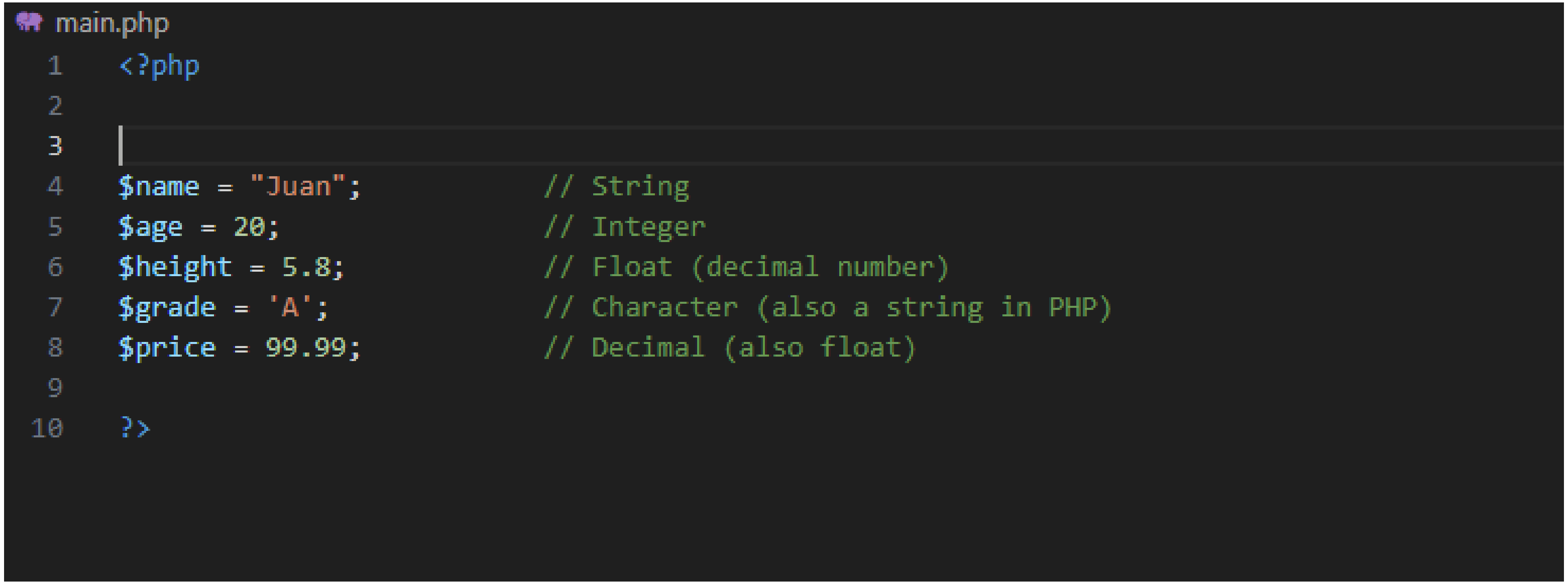


```php
<?php


$name = "Juan";           // String
$age = 20;                // Integer
$height = 5.8;            // Float (decimal number)
$grade = 'A';             // Character (also a string in PHP)
$price = 99.99;           // Decimal (also float)

?>
```

VARIABLES



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?>
```

Input and Output in PHP

Output is how PHP displays data to the screen.

We use:

echo → for simple output

Examples:

echo "Hello, World!";

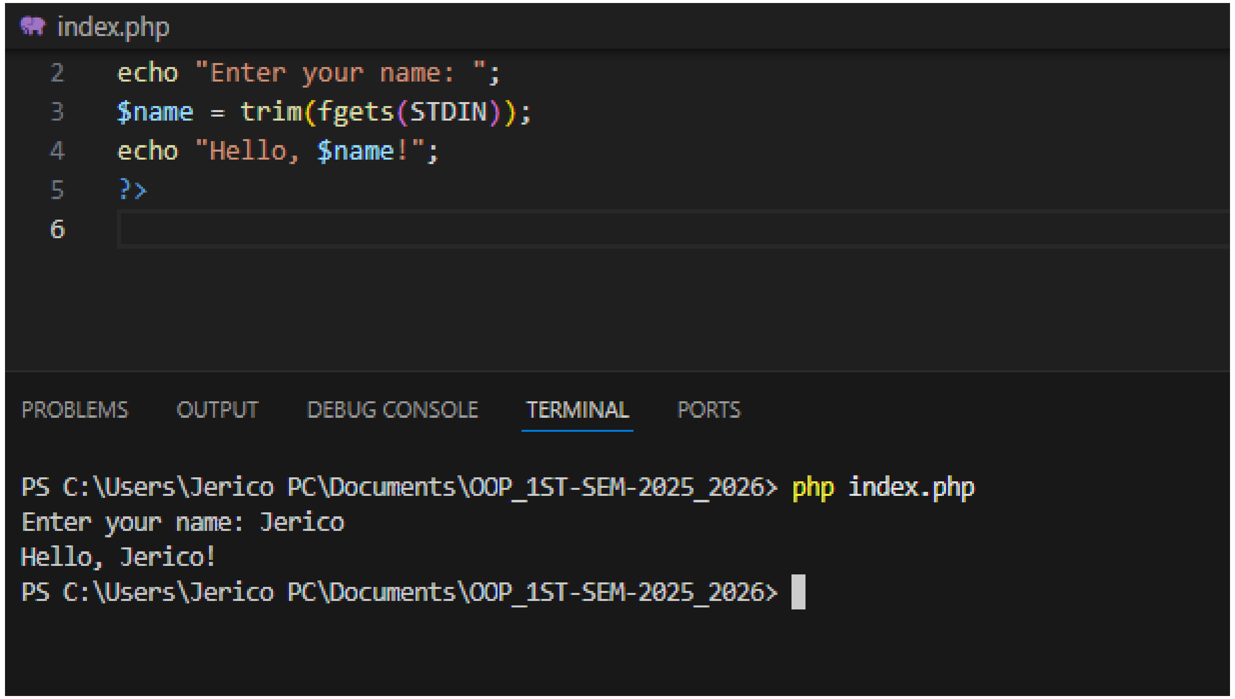
Input and Output in PHP

Form Input (Web Browser)
-Uses $_POST or $_GET from an HTML form.

Command Line Input (Terminal)
-Uses fgets(STDIN) or readline()
-Used when running PHP from the terminal.

Input and Output in PHP

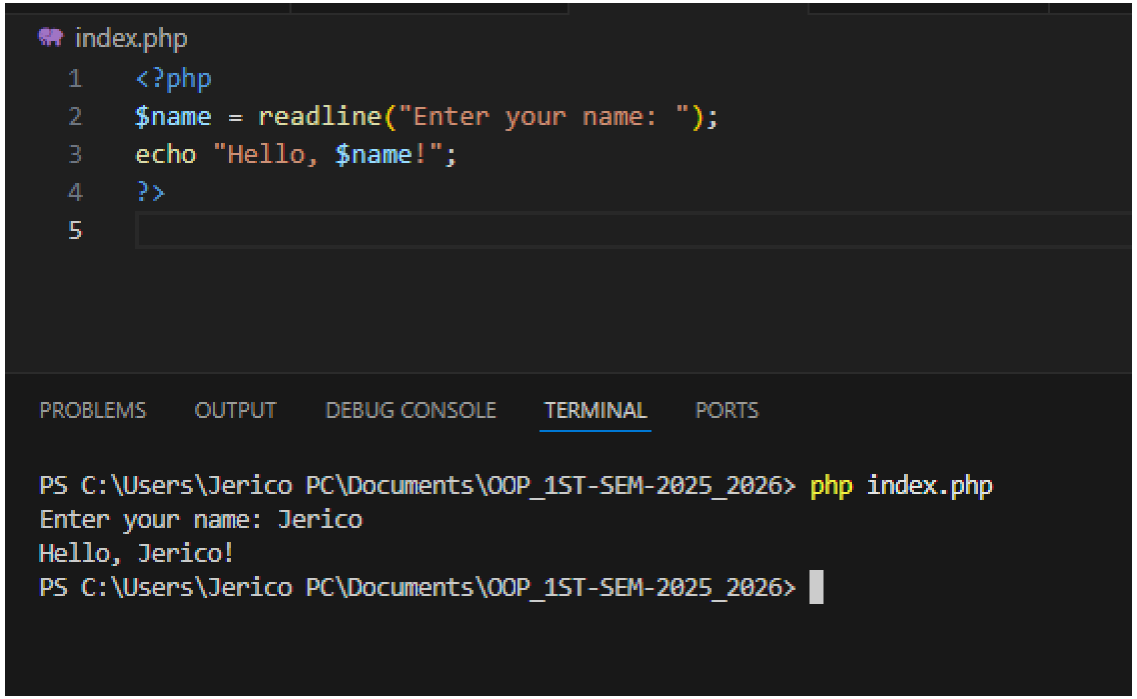
fgets(STDIN)



```php
echo "Enter your name: ";
$name = trim(fgets(STDIN));
echo "Hello, $name!";
?>

```

```
PS C:\Users\Jerico PC\Documents\OOP_1ST-SEM-2025_2026> php index.php
Enter your name: Jerico
Hello, Jerico!
PS C:\Users\Jerico PC\Documents\OOP_1ST-SEM-2025_2026>
```

readline()

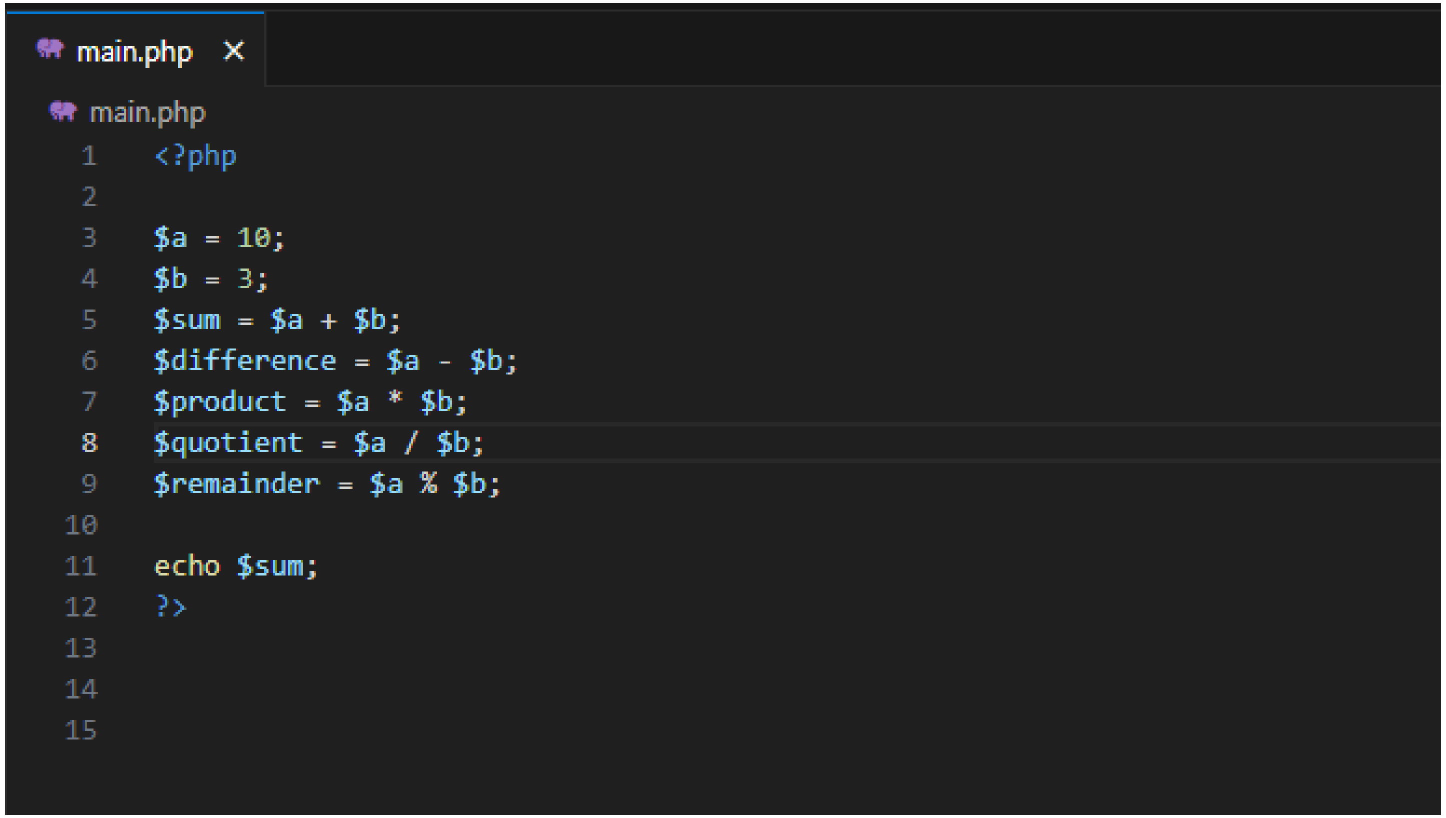


```php
<?php
$name = readline("Enter your name: ");
echo "Hello, $name!";
?>

```

```
PS C:\Users\Jerico PC\Documents\OOP_1ST-SEM-2025_2026> php index.php
Enter your name: Jerico
Hello, Jerico!
PS C:\Users\Jerico PC\Documents\OOP_1ST-SEM-2025_2026>
```

Operators

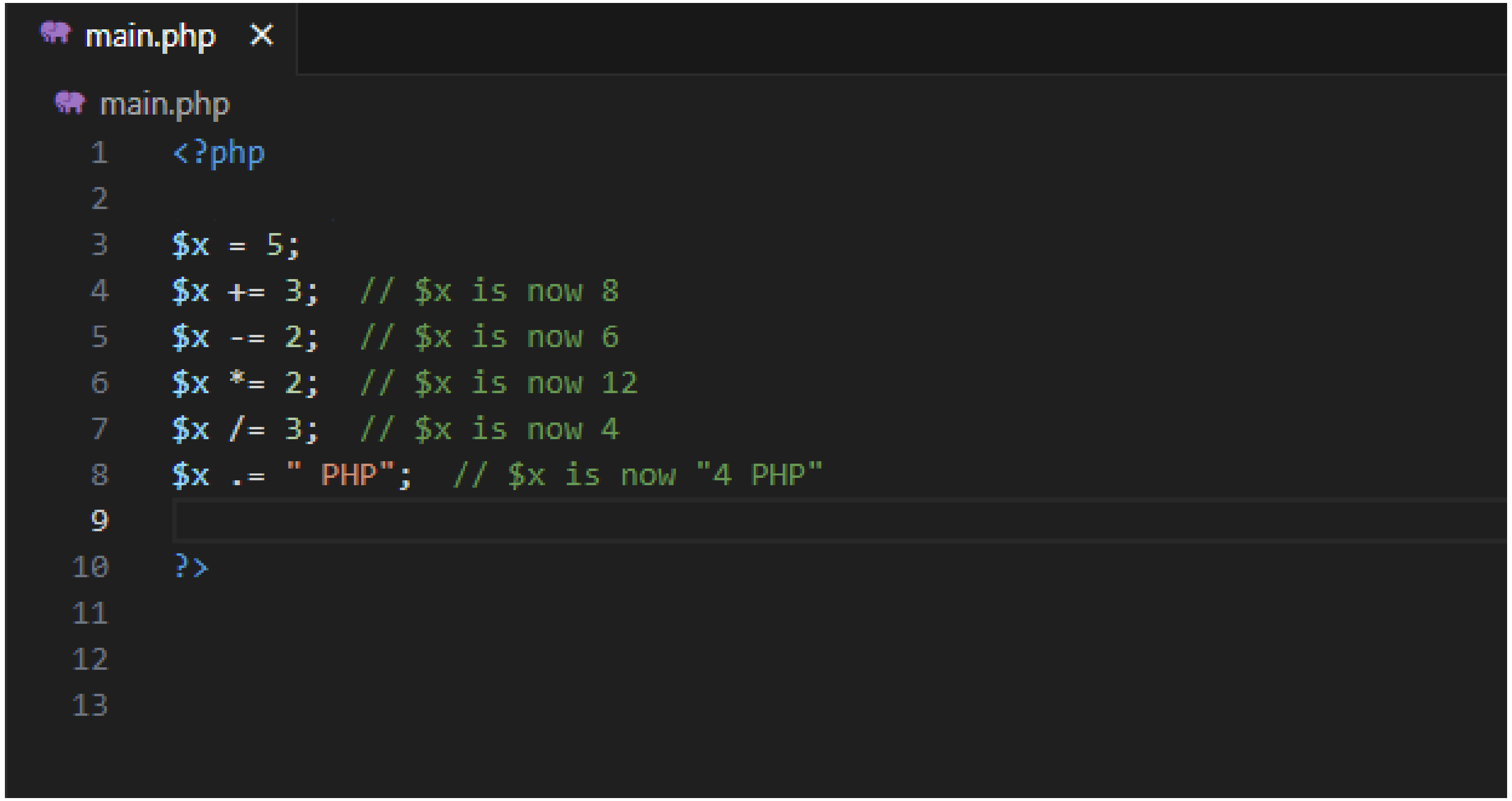
Arithmetic Operators



```php
<?php

$a = 10;
$b = 3;
$sum = $a + $b;
$difference = $a - $b;
$product = $a * $b;
$quotient = $a / $b;
$remainder = $a % $b;

echo $sum;
?>
```

Operators

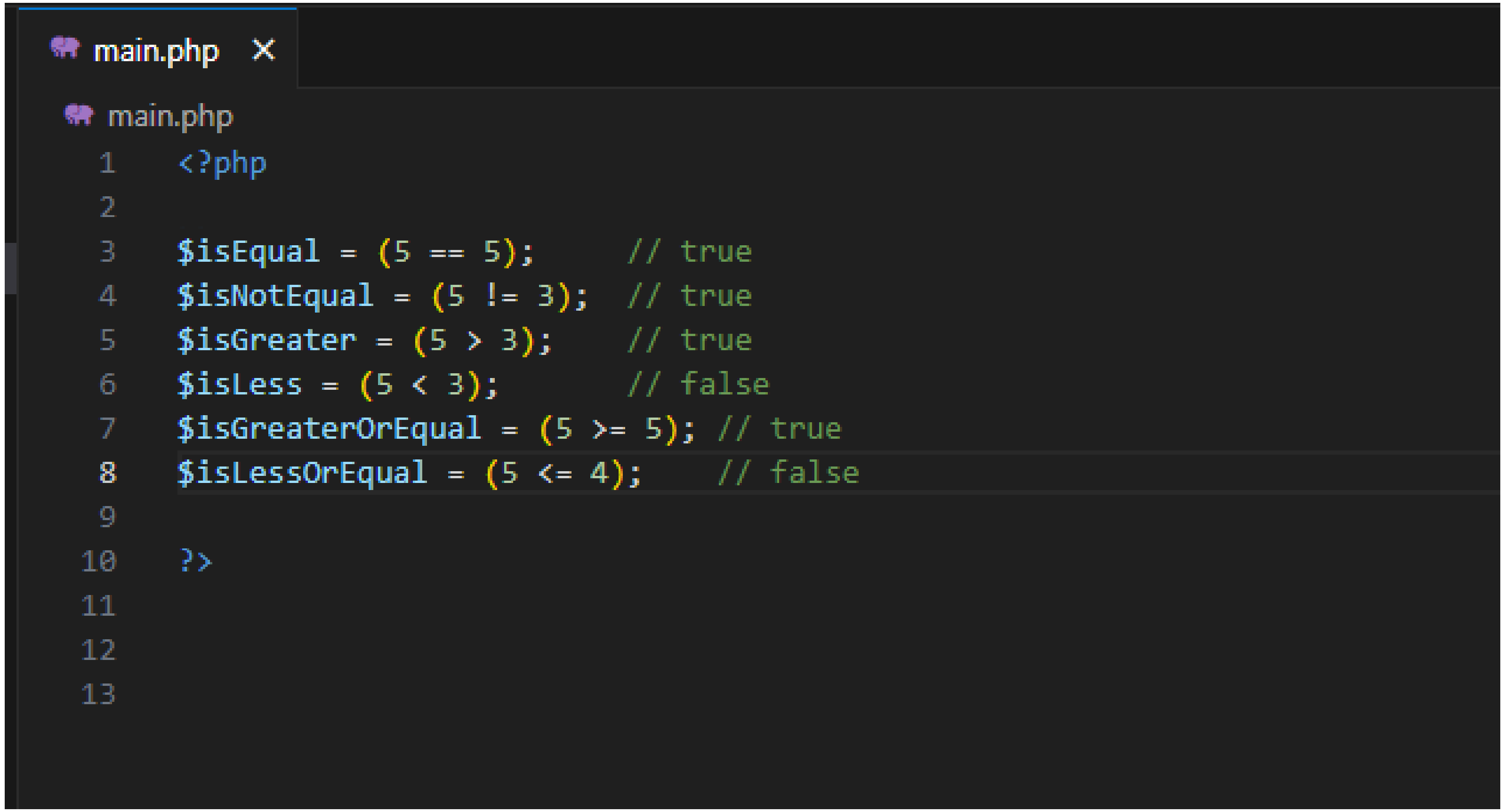
Assignment Operators



```php
<?php

$x = 5;
$x += 3;  // $x is now 8
$x -= 2;  // $x is now 6
$x *= 2;  // $x is now 12
$x /= 3;  // $x is now 4
$x .= " PHP";  // $x is now "4 PHP"

?>
```

Operators

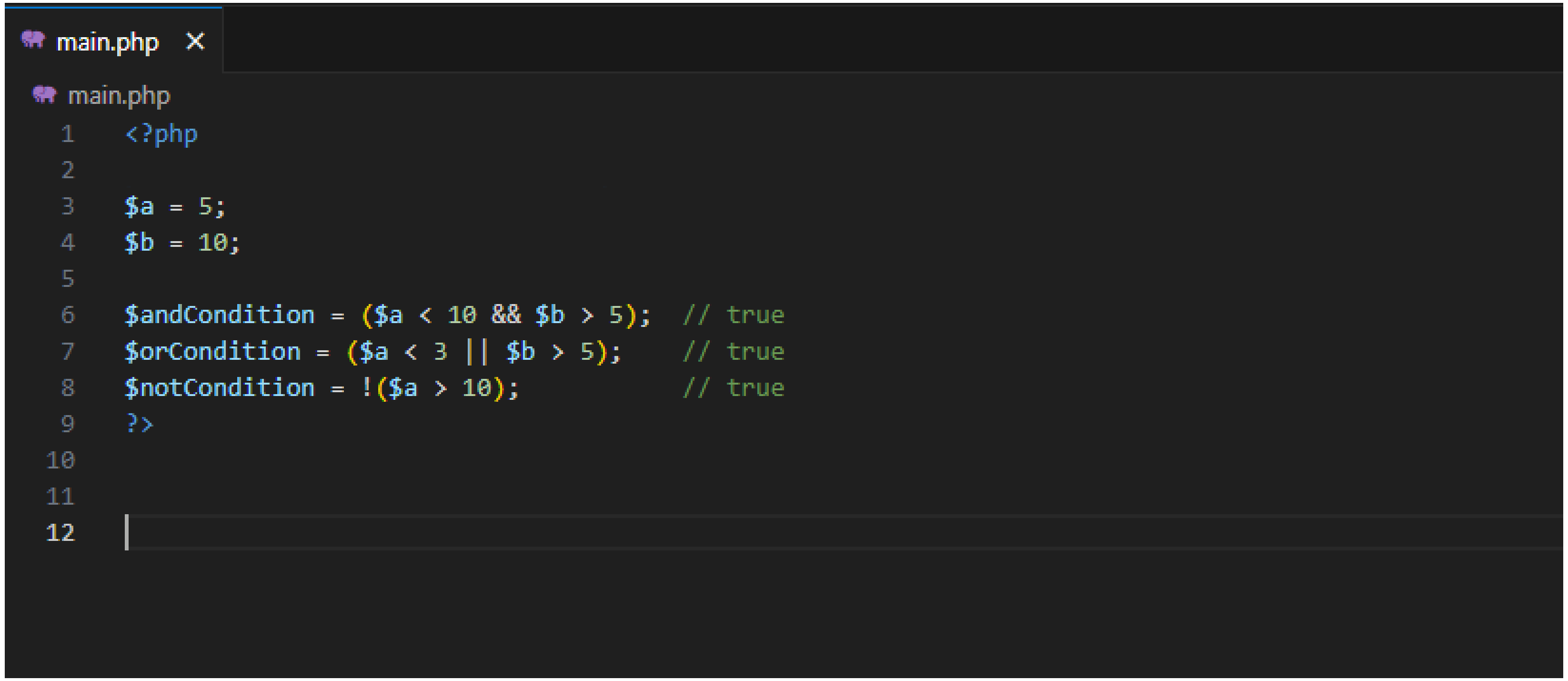
Comparison Operators



```php
<?php

$isEqual = (5 == 5);     // true
$isNotEqual = (5 != 3);  // true
$isGreater = (5 > 3);    // true
$isLess = (5 < 3);       // false
$isGreaterOrEqual = (5 >= 5); // true
$isLessOrEqual = (5 <= 4);    // false

?>
```

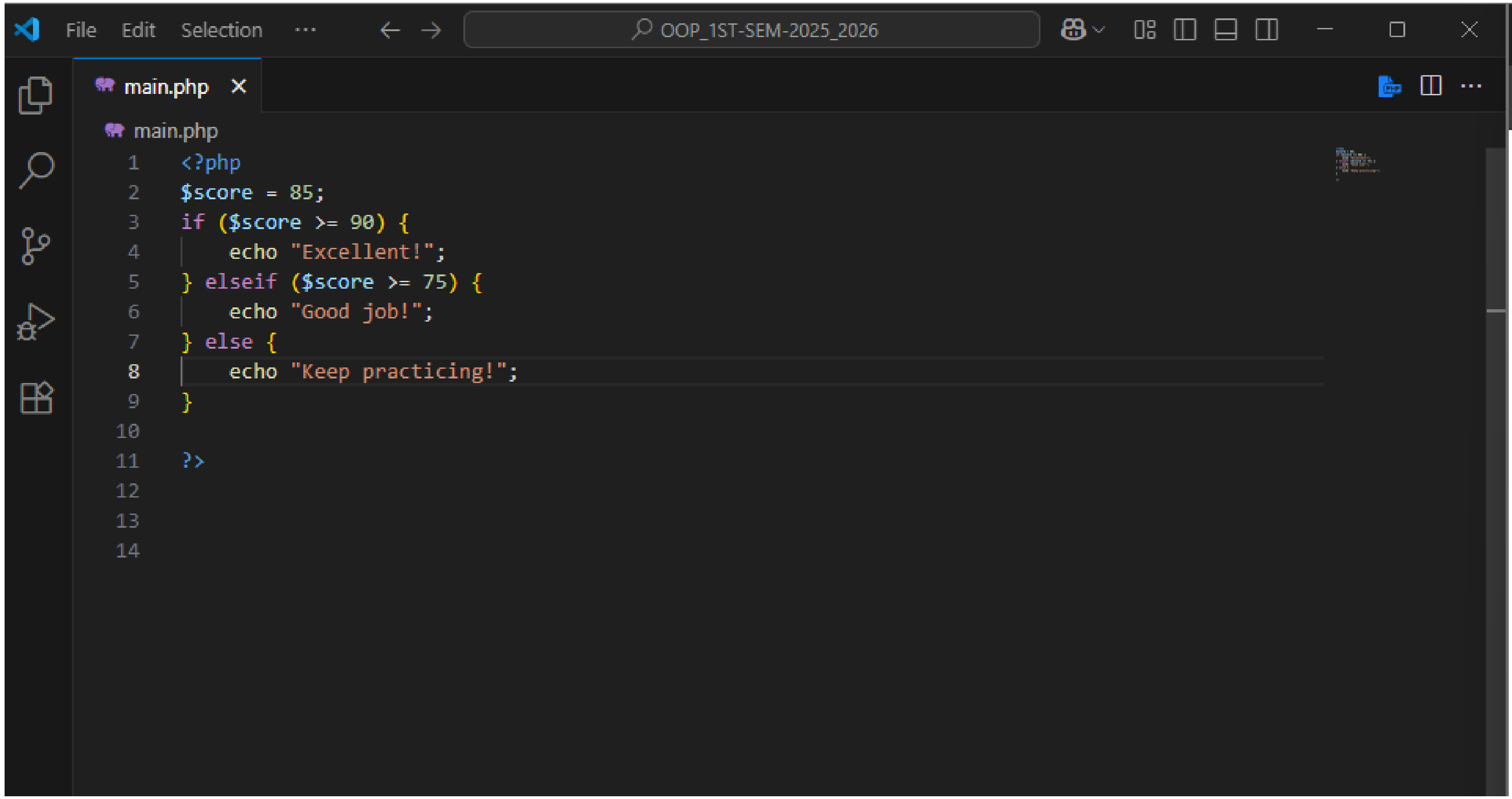
Operators

Logical Operators

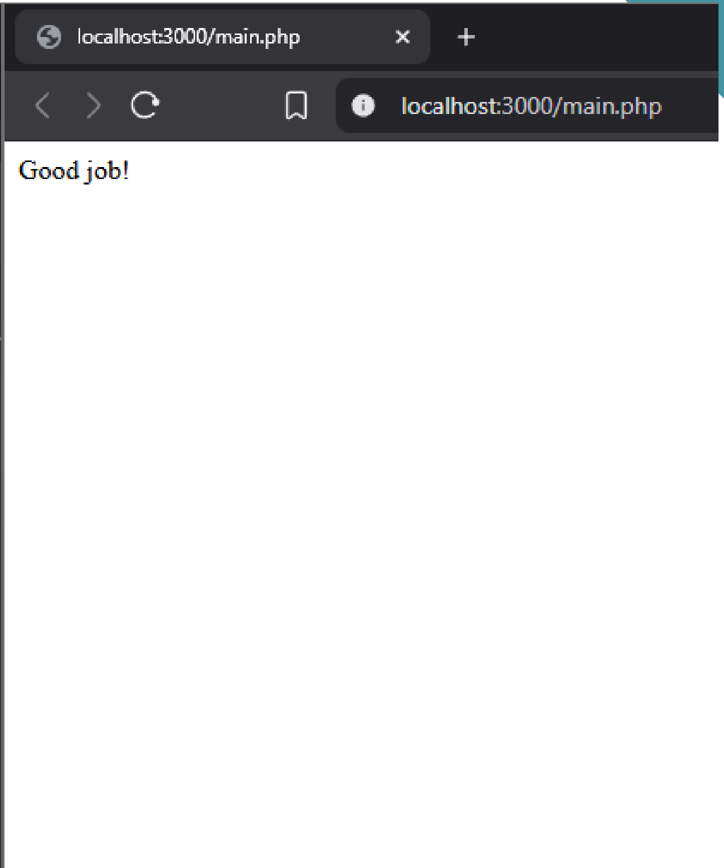


```php
<?php

$a = 5;
$b = 10;

$andCondition = ($a < 10 && $b > 5);  // true
$orCondition = ($a < 3 || $b > 5);    // true
$notCondition = !($a > 10);           // true
?>


```

Conditional Statements

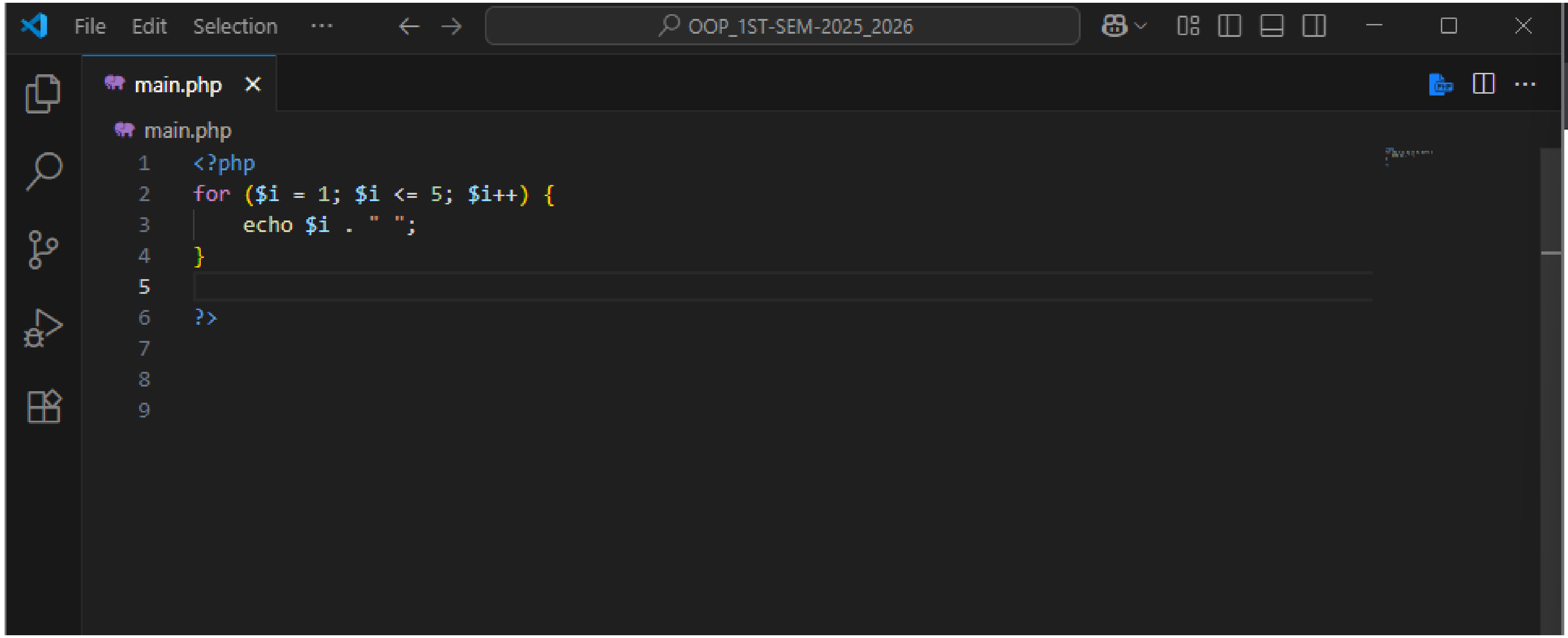


```php
<?php
$score = 85;
if ($score >= 90) {
    echo "Excellent!";
} elseif ($score >= 75) {
    echo "Good job!";
} else {
    echo "Keep practicing!";
}

?>
```

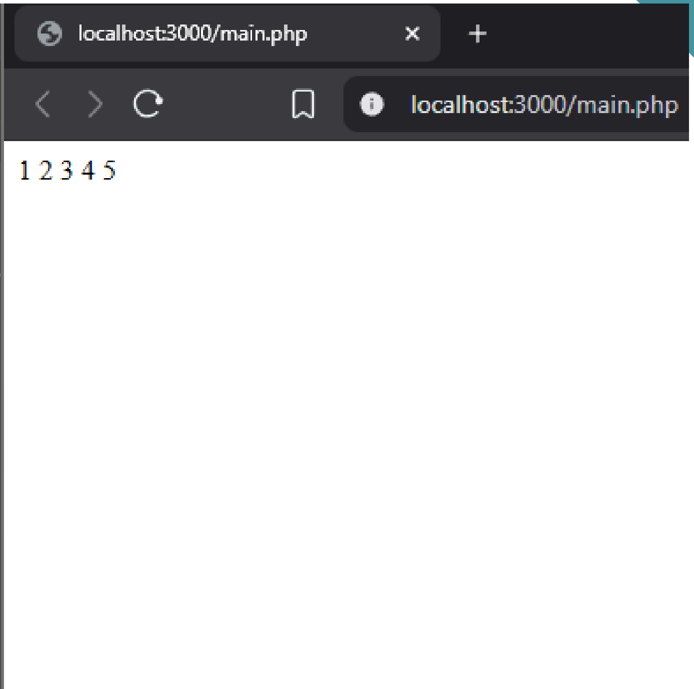


```
Good job!
```

Loops – For Loop

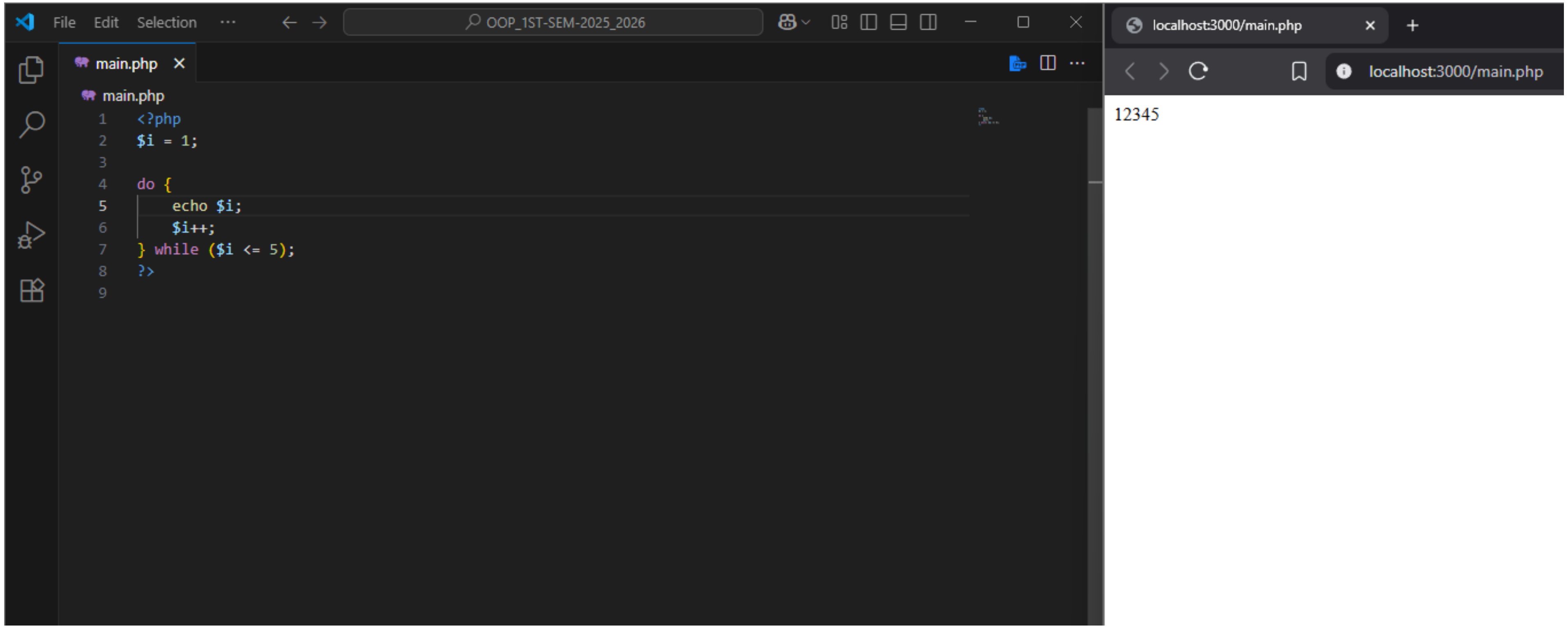


```php
<?php
for ($i = 1; $i <= 5; $i++) {
    echo $i . " ";
}

?>
```



```
1 2 3 4 5
```

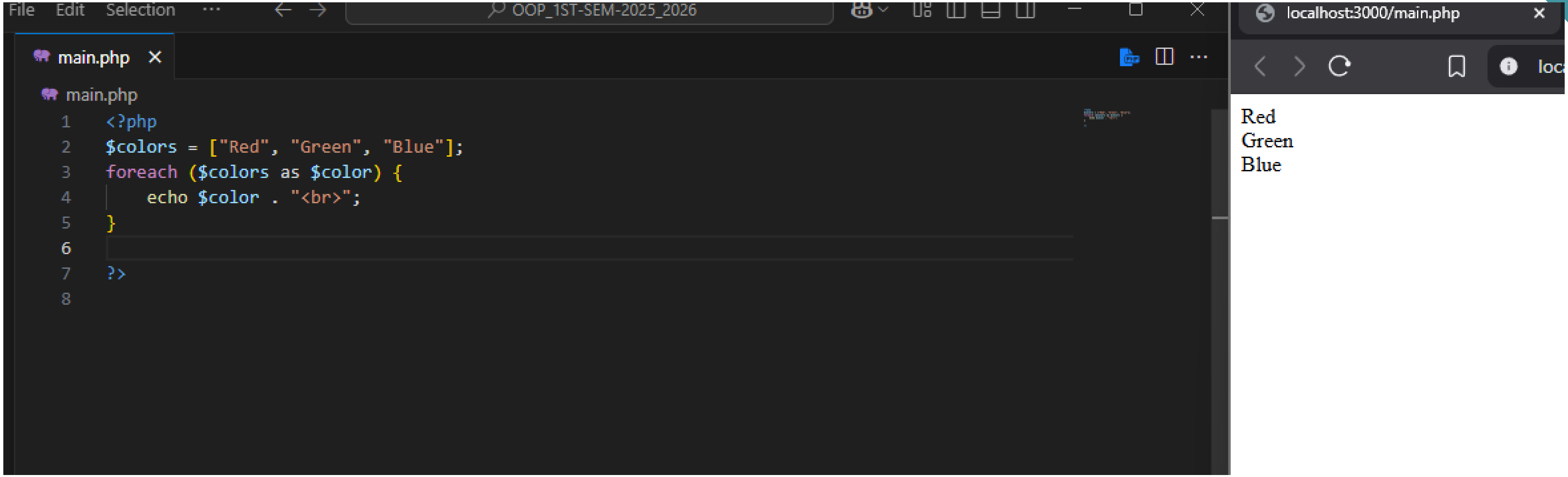
Loops – Do while



```php
<?php
$i = 1;

do {
    echo $i;
    $i++;
} while ($i <= 5);
?>

```

```
12345
```

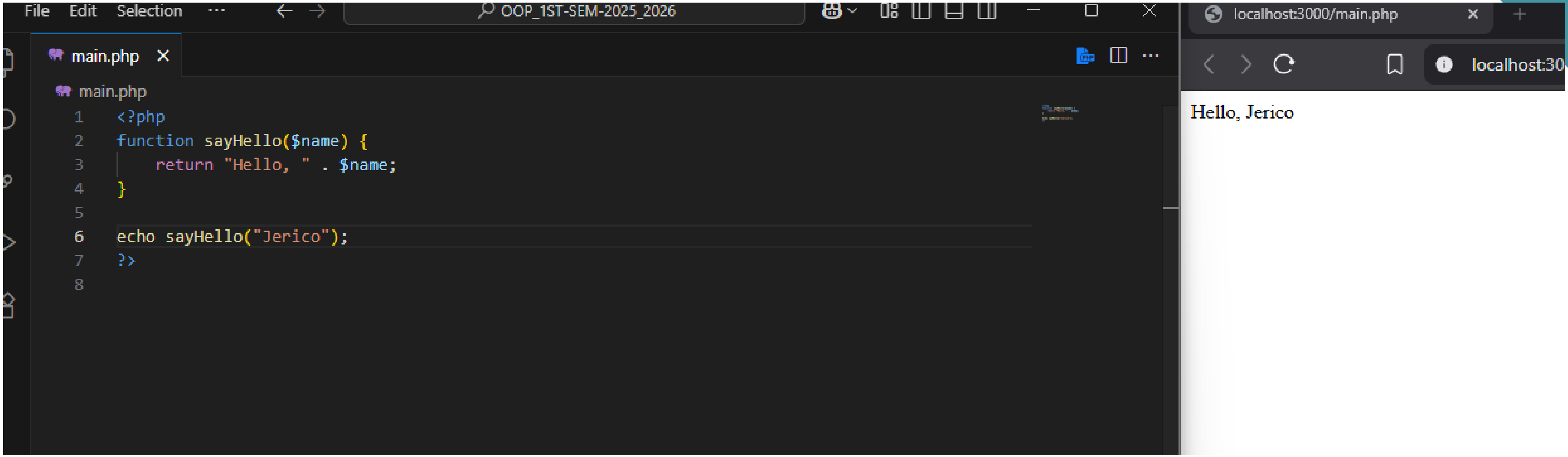
Loops – For Each



```php
<?php
$colors = ["Red", "Green", "Blue"];
foreach ($colors as $color) {
    echo $color . "<br>";
}

?>

```

```
Red
Green
Blue
```

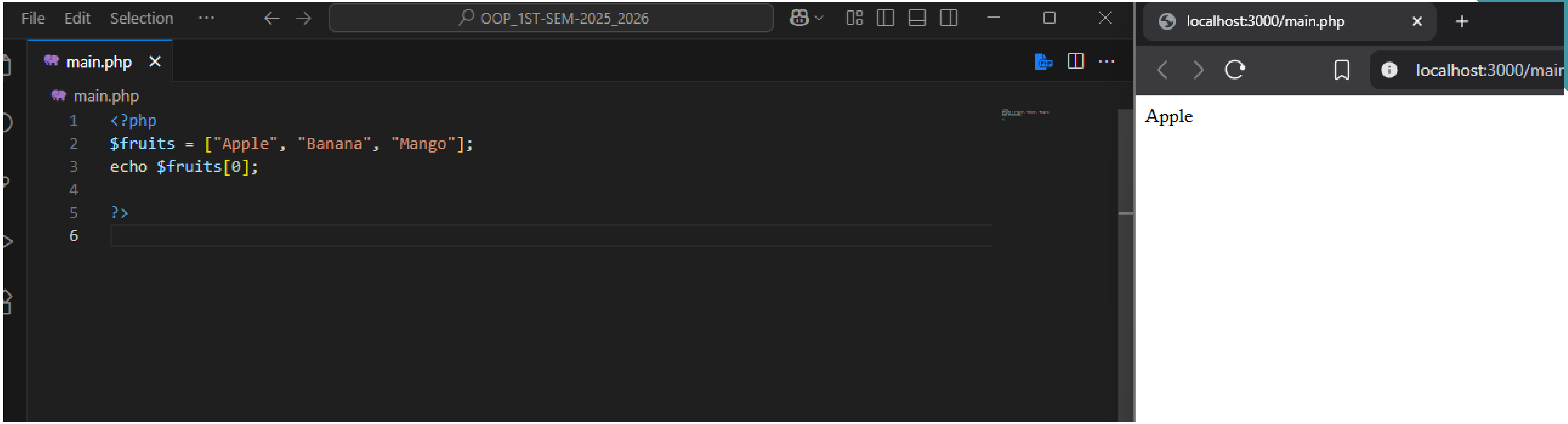
Functions in PHP



```php
<?php
function sayHello($name) {
    return "Hello, " . $name;
}

echo sayHello("Jerico");
?>
```

```
Hello, Jerico
```

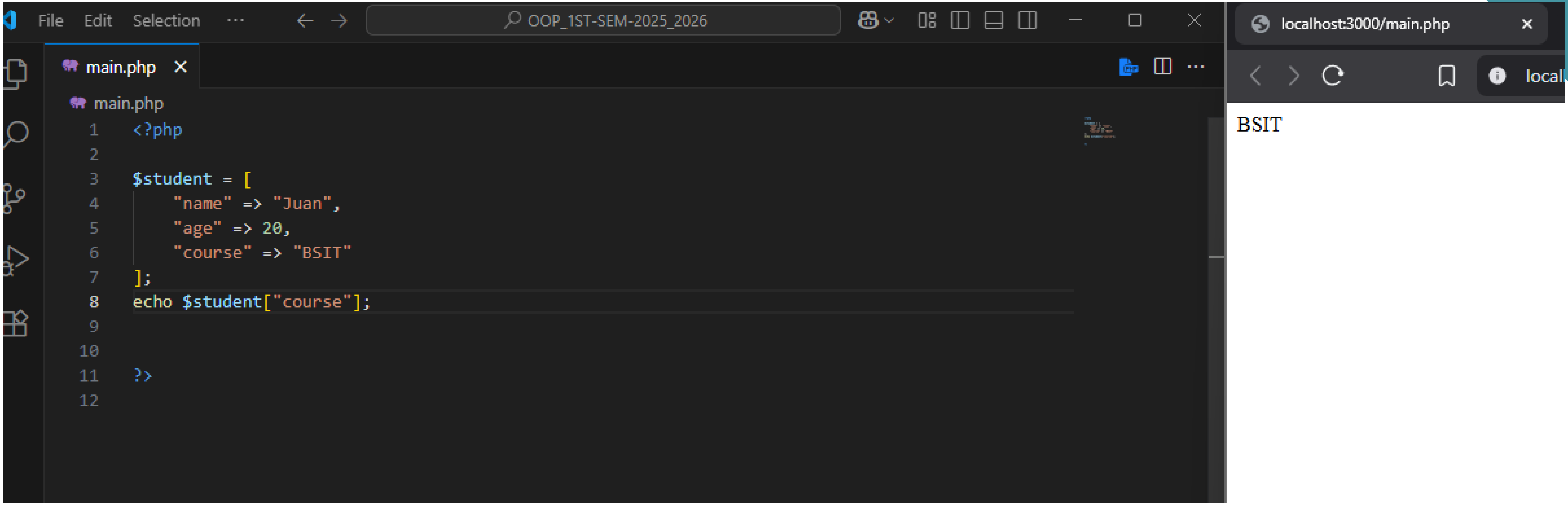
Arrays – Indexed Array



```php
<?php
$fruits = ["Apple", "Banana", "Mango"];
echo $fruits[0];

?>

```

```
Apple
```

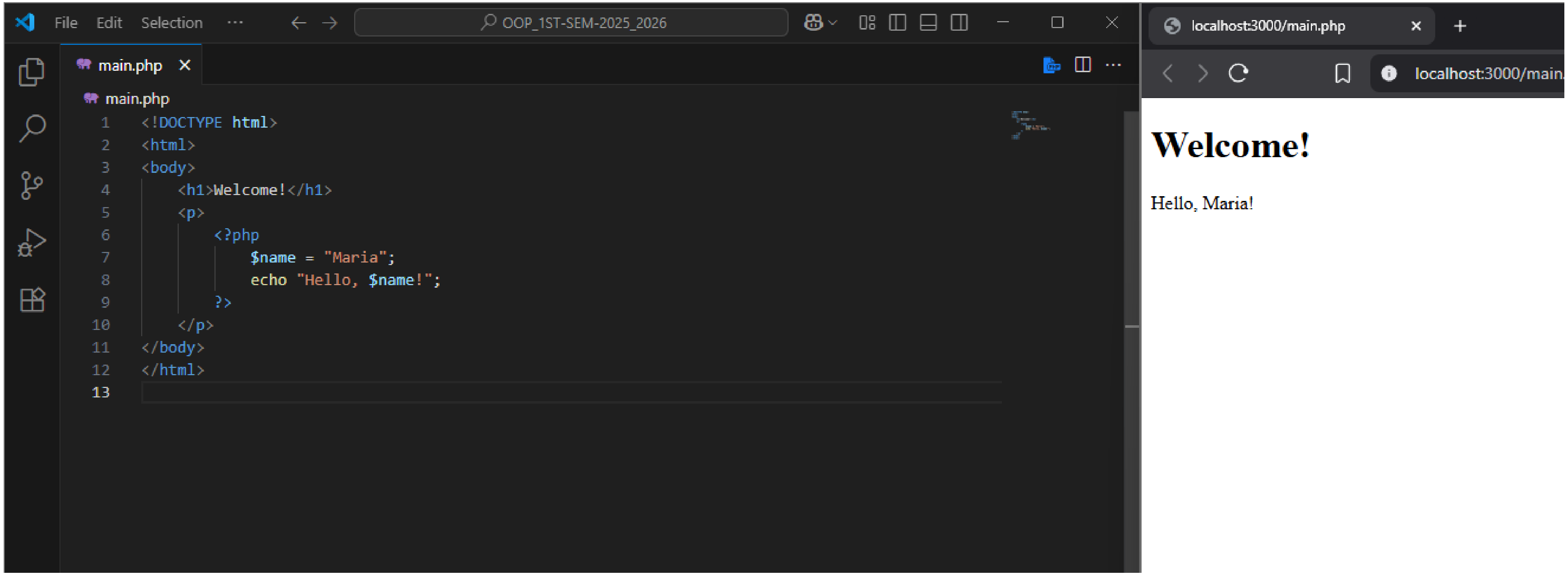
Arrays – Associative Array



```php
<?php

$student = [
    "name" => "Juan",
    "age" => 20,
    "course" => "BSIT"
];
echo $student["course"];


?>
```

```
BSIT
```

PHP Inside HTML



```
<!DOCTYPE html>
<html>
<body>
    <h1>Welcome!</h1>
    <p>
        <?php
            $name = "Maria";
            echo "Hello, $name!";
        ?>
    </p>
</body>
</html>

```

```
Welcome!

Hello, Maria!
```

Practice Activity

Print Even Numbers:
Use a for loop to print all even numbers from 1 to 20.

Sum of Positive Numbers:
Write a program using a while loop that asks the user to enter 5 numbers and calculates the sum of all positive numbers only.

Thank you