Lecture #3 For PHP

A Server-Side Scripting Language

Constant

- In PHP programming language, a constant is a value that, once defined, cannot be changed during the execution of a script. Constants are used to store fixed values like numbers, strings, or expressions, and they provide a way to give a meaningful name to these values.

- define("CONSTANT_NAME", value);

```
// Define a constant for the value of pi
define("PI", 3.14);

// Using the constant in calculations
$radius = 5;
$area = PI * ($radius * $radius);

echo "The area of a circle with radius $radius is: $area";
```

Arithmetic Operations:

- $sum = 5 + 3; // Addition
- $difference = 7 - 2; // Subtraction
- $product = 4 * 6; // Multiplication
- $quotient = 8 / 2; // Division
- $remainder = 10 % 3; // Modulo (remainder after division)

Assignment Operations

- $x = 10; // Assigning a value
- $y += 5; // Increment $y by 5 (same as $y = $y + 5)
- $z -= 3; // Decrement $z by 3 (same as $z = $z - 3)

Comparison Operations

- $a = 10;
- $b = 5;
- $isEqual = ($a == $b); // Equal to
- $isNotEqual = ($a != $b); // Not equal to
- $isGreater = ($a > $b); // Greater than
- $isLess = ($a < $b); // Less than

Logical Operations

- $isTrue = true;
- $isFalse = false;

- $andResult = ($isTrue && $isFalse); // Logical AND
- $orResult = ($isTrue || $isFalse); // Logical OR
- $notResult = !$isTrue;   // Logical NOT

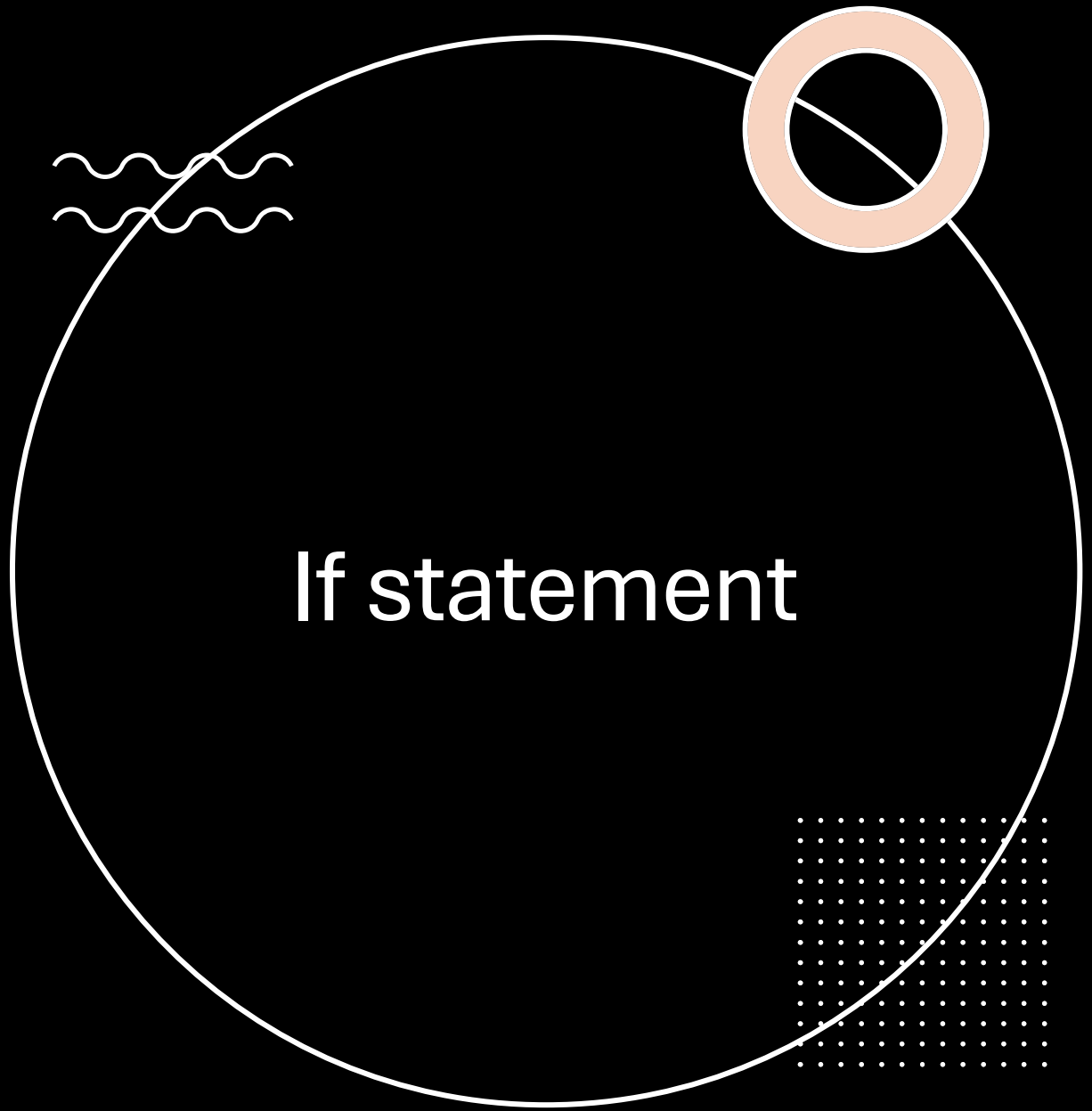
String Operations

- $str1 = "Hello";
- $str2 = " World!";
- $concatenated = $str1 . $str2; // String concatenation
- $length = strlen($concatenated); // String length

Array Operations

- $colors = array("Red", "Green", "Blue");
- $count = count($colors); // Counting elements in an array
- $firstElement = $colors[0]; // Accessing array elements
- $newArray = array_merge($colors, ["Yellow", "Orange"]); // Merging arrays

In PHP, the if statement is a conditional structure that allows you to execute a block of code only if a specified condition evaluates to true. It helps you control the flow of your program based on whether a certain condition is met or not.



- In php if statement is a conditional structure that allows you to execute a block of code only if a specified condition evaluates to true. It helps you control the flow of your program based on whether a certain condition is met or not.

- if (condition) {

  // Code to be executed if the condition is true

  }

Example

```php
<?php
$age = 25;

if ($age >= 18) {
    echo "You are eligible to vote!";
} else {
    echo "Sorry, you are not eligible to vote yet.";
}
?>
```

Nested if

```php
<?php
// Example of nested if statements

$temperature = 25; // Assume it's 25 degrees Celsius

if ($temperature > 20) {
   // Outer if statement
   echo "It's a warm day.";

   if ($temperature > 30) {
      // Inner if statement
      echo " It's really hot!";
   } else {
      // Inner else statement
      echo " It's not too hot.";
   }
} else {
   // Outer else statement
   echo "It's a cool day.";
}
?>
```

In last example

- The outer if statement checks if the temperature is greater than 20 degrees Celsius.
- If the condition is true, it prints "It's a warm day" and then goes into the nested if statement.
- The nested if statement checks if the temperature is greater than 30 degrees Celsius.
- If true, it prints "It's really hot!".
- If false, it prints "It's not too hot.".
- If the outer if statement is false, it goes to the else statement and prints "It's a cool day.".