Abdalla Haitham Abdul Wahhab

Ne /E

Stage 4

Q1/ What is a regular expression and how is it used in PHP?

A regular expression (regex) is a special text patternused for matching, searching, and manipulating strings.It defines a concise way to describe complex searchcriteria.In PHP, regex is employed through various functionslike preg_match(), preg_match_all(), preg_replace(),and preg_split(). These functions allow you to perforoperations based on the patterns you create

Q2/ What are some of the most commonly used regular expression functions in PHP, and what do they do?

Here's a breakdown of some essential regex functions:

preg_match(pattern, string, matches, flags):

Checks if the provided pattern matches the string. Returns 1 on a successful match, 0 on no match, and

negative values for errors. Optional matches array captures matched substrings. Optional flags modify the matching behavior (e.g., case

sensitivity, global matching). preg_match_all(pattern, string, matches, flags):Similar to preg_match(), but finds all occurrences of

the pattern in the string. Returns an array of captured substrings for each

match. Preg_replace(pattern, replacement, string, limit,

count):

Replaces all (or a limited number with limit)

Occurrences of the pattern in the string with the

Replacement. Replacement can be a string or a callback function for

More complex replacements. Returns the modified string.
Preg_split(pattern, string, limit, flags):

Splits the string into an array based on the pattern. Optional limit controls the maximum number of splits. Optional flags can influence splitting behavior (e.g.,

Keep delimiters)

Q3/What is the difference between the preg_match() and preg_match_all () Functions?

The key difference lies in how many matches they find:

Preg_match(): Returns 1 if the pattern is found

Anywhere in the string, even just once. Preg_match_all(): Returns an array containing

Information about all occurrences of the pattern in the

String. It can potentially return an empty array if no

Matches are found.

Q4/ How do you use regular expressions to search and replace text in PHP? Give

A code example.

Expressions

PHP

```php
$text = "This is a string with the word 'test'.";

$pattern = "/test/"; // Matches the word "test"

$replacement = "replaced";

$newText = preg_replace($pattern, $replacement,
$text);

Echo $newText; // Output: This is a string with the
Word 'replaced'.
```