

DISCUSSION

1-What is a regular expression and how is it used in PHP?

A regular expression (RegEx) is a string of characters that makes a search pattern. This search pattern can be used to describe what you are looking for when seeking for data within a text.

In PHP, regular expressions are used to perform tasks like pattern matching, searching, replacing, and splitting strings. PHP provides functions like `preg_match()`, `preg_replace()`, and `preg_split()` to work with regular expressions.

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

`preg_match()` Returns 1 if the pattern was found in the string and 0 if not
`preg_match_all()` Returns the number of times the pattern was found in the string, which may also be 0
`preg_replace()` Returns a new string where matched patterns have been replaced with another string

3- What is the difference between the `preg_match()` and `preg_match_all()` functions?

`preg_match()` Returns 1 if the pattern was found in the string and 0 if not
`preg_match_all()` Returns the number of times the pattern was found in the string, which may also be 0.

4- How do you use regular expressions to search and replace text in PHP? Give a code example.

Used regular expressions to search and replace text using the preg_replace() function

Example

```
<?php
```

```
$pattern = '/apple/i';
```

```
$replacement = 'orange';
```

```
$string = 'I have an Apple and a banana.';
```

```
$newString = preg_replace($pattern, $replacement, $string);
```

```
echo $newString;
```

```
?>
```