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WEB 330 - Enterprise JavaScript II

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Discussion 2.1 – Regular Expression

What is a regular expression?

A regular expression, also known as a regex or regexp, is a sequence of characters that defines a search pattern (Goyvaerts, 2021). These patterns are mainly used to search, match, and replace strings or sets of strings in a given text or data. Regular expressions can be very useful for efficiently searching and manipulating large amounts of data, as well as validating the format of a given string. For example, a regular expression can be used to check if a string is a valid email address or phone number.

What are the advantages of a regular expression?

There are several advantages to using regular expressions. They can be very powerful and can perform complex tasks with just a few lines of code, making them very useful for developers. Regular expressions can also be used across a wide range of programming languages, which makes them very versatile.

What are the disadvantages of a regular expression?

Regular expressions also have some disadvantages. They can be challenging to read and understand, especially for those who are not familiar with them. Regular expressions can also be slow if not used properly, which can be a problem when working with large amounts of data.

How are brackets used in a regular expression?

In regular expressions, brackets are used to specify a set of characters that should be matched.

What does the expression [0-9] mean?

The expression [0-9] will match any digit from 0 to 9.

What does the expression [abc] mean?

The expression [abc] will match any character from the set "abc", so it will match "a", "b", or "c".

What are modifiers in a regular expression?

Modifiers are special characters that can be added to a regular expression to change its behavior. Some common modifiers are "i" for case-insensitive matching, "g" for global matching, and "m" for multiline matching.

Write a regular expression in JavaScript that validates a string value that contains alphanumeric characters only.

```
/^[a-zA-Z0-9]*$/
```

The example above is a regular expression that validates a string value that contains only letters and digits. The ^ and $ symbols specify the start and end of the string. The [a-zA-Z0-9] bit matches any character from a-z , A-Z , and 0-9.

References

Goyvaerts, J. (2021). *Regular-Expressions.info - Regex Tutorial, Examples and Reference - Regexp Patterns*. Regular-Expressions.info. https://www.regular-expressions.info/