

BLM320E FORMAL LANGUAGES AND AUTOMATA THEORY

TERM PROJECT REPORT

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PROJECT NAME: Regular Expressions

PROGRAMMING LANGUAGES: HTML, CSS ve Javascript

- This project is intended for training purposes to teach the subject of Regular Expressions.
- The implementation of the regex concept in Javascript language is shown in the project.
- In the project web page, there are Brackets, Metacharacters, Quantifiers, RegExp Object Properties and RegExp Object Methods topics.
- The rules found in Regex rule tables can be tested with the regex tester at the beginning of the web page.
- Patterns of the desired type can be created for regex tester use and these patterns can be applied to the desired type of expressions.
- Mobile compatibility of the project was done using bootstrap.

REFERENCES:

Emrah Tema: https://emrahtema.github.io/Automata/regexp/EmrahTema_Regexp.html

W3schools: https://www.w3schools.com/jsref/jsref_obj_regexp.asp

Lifewire: <https://www.lifewire.com/what-are-regular-expressions-4173889>

REGULAR EXPRESSIONS

Regex, or regular expressions, are a pattern matching markup that programmers use to search for certain patterns in text. Regular expressions can search for just about anything, depending on how you structure them; they're used all over by programmers because they're invaluable for helping computers sort through data quickly and filter out nonsense that could otherwise cause errors. Regular expressions tend to look scary, especially for non-programmers. Just look at this: `[a-zA-Z0-9_+~]@[a-zA-Z0-9_-]+\.[a-zA-Z0-9_-]+`

Realistically, it's actually not that bad; that one matches email addresses. As you'll see, expressions can be broken down into individual characters, all of which tell the program what to look for. Regular expressions are almost universal. The same general syntax applies across all languages with only slight variations here and there. This guide contains examples from both Python and JavaScript as well as plain old regex. If you work with a different language, don't worry. Nearly everything will apply to your language of choice, too.

Define Your RegExp

```
[0-9]*(cm|kg)
```

Input Your Test String

```
My Height = 180 cm , My Weight = 86 kg
```

See Output

My Height = 180 cm , My Weight = 86 kg