

1. INTRODUCTION

Regular Expressions in Python

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The Python programming language was developed by Guido van Rossum starting in 1989, and the first version was released in 1991. It is one of the most widely used and popular programming languages, and is considered one of the easiest programming languages to read, because it uses indentation to show blocks of code.

RegExes in Python

Python doesn't have regular expressions built into the programming language, but it does have a library (or package) called `re` that can be imported into Python programs, and that gives those programs a range of RegEx functions.

The program below begins with stating the program name `RegEx_email`, and next it imports the regular expression package (`import re`). Following that the specific regular expression is declared, as well as the text we are going to test it against (these are `RegEx_Pattern` and `Test_Message` respectively). The pattern is then compared with the specific regular expression using `re.match` function, and since they will match each other, this program will print out the following message: `The pattern matches`.

```
# PROGRAM RegEx_email:

import re

RegEx_Pattern = "^[A-Za-z+.]+@[A-Za-z.]+[A-Za-z]+$"
Test_Message = "Damian.T.Gordon@mymail.com"

if (re.match(RegEx_Pattern, Test_Message)):
    #then
    print("The pattern matches")
else:
    print("The pattern does not match")
# ENDIF;

# END.
```

Other Functions in the `re` Package

Importing the `re` package means a range of functions related to regular expressions are available to the program. We've seen one function already, `re.match()`, which compares a regular expression with some text. Two other important functions are:

- `re.search()`: This will search some text for a pattern, and it will return the first occurrence of that pattern within the text.
- `re.findall()`: This will find all occurrences of a pattern in some text.

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