

1. INTRODUCTION

Regular Expressions in Java

Introduction

The Java programming language was developed by James Gosling, Mike Sheridan, and Patrick Naughton starting in 1991, and the first version was released in 1996. It is one of the most widely used and popular programming languages, and was designed with a C/C++-style syntax that programmers would be familiar with.

RegExes in Java

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

The program below is similar to the Python program we have seen already, with a few differences; it begins by importing two classes from the `java.util.regex` package (`java.util.regex.Pattern` and `java.util.regex.Matcher`), those are `Pattern` and `Matcher`. Next the `Main` class is declared, as is the `Main` method. The regular expression is specified using the `Pattern` class, and the test text is specified using the `Matcher` class. The test text is compared with the specific regular expression using the `Test_Message.find()` function, and since the two match each other, this program will print out the following message:

The pattern matches.

```
import java.util.regex.Pattern;
import java.util.regex.Matcher;

public class Main {
    public static void main(String[] args) {

        Pattern RegEx_Pattern =
            Pattern.compile("^ [A-Za-z+. ]+@[A-Za-z. ]+[A-Za-z]+$");
        Matcher Test_Message =
            RegEx_Pattern.matcher("Damian.T.Gordon@mymail.com");

        if(Test_Message.find()) {
            System.out.println("The pattern matches");
        } else {
            System.out.println("The pattern does not match");
        }
    }
}
```

The `java.util.regex` package has over 4000 classes in it, so we won't cover them all here, but we'll see some more of them over the coming weeks.