

CS209 – LAB8

Key Content

- Learn how to use Pattern and Matcher.
- Basic applications of RE.

Before Exercise

Run the [RegexTest.java](#), try to input a pattern and a string used to be matched and observe the result.

For example, you can run the following command:

```
java RegexTest a* aba
```

Result:

```
a*
aba

Match found : true
Match start : 0
Match end : 1
Match content : a

Match found : true
Match start : 1
Match end : 1
Match content :

Match found : true
Match start : 2
Match end : 3
Match content : a

Match found : true
Match start : 3
Match end : 3
Match content :
```

Another example:

```
java RegexTest ^(1171)[0-9]{4} 117100011161000211810003
```

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Result:

```
^(1171)[0-9]{4}
117100011161000211810003

Match found : true
Match start : 0
Match end : 8
Match content : 11710001
Group 1 : 1171
```

Exercise

1. Given some dates, split them using “年”“月”“日”.

Input:

```
2019 年 4 月 8 日星期一
2019 年 4 月 9 日星期二
2019 年 4 月 8 日星期三
```

Output:

```
2019
4
8
2019
4
9
2019
4
10
```

2. Given some email address of sustech students, output their student id.

Input:

```
11710001@mail.sustc.edu.cn
11810002@mail.sustech.edu.cn
11610003@mail.sustc.edu.cn
```

Output:

```
11710001
11810002
11610003
```

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3. Suppose you are developing a website, you want to check if a user input a strong password. A strong password must contain capital letters, lowercase letters, special characters and digitals meanwhile which length should be larger than 8 and smaller than 16. (special characters: ~!@#\$%^&*()_+|<>.,?/:;'[]{}¥)

Input:

1A11111a

123aBC.,

Output:

False

True

4. Suppose you are working for an express company, you accept a new requirement. You need to automatically extract province, city, district, street, zip code, telephone number and other information from user input address information

Input:

广东省深圳市南山区学苑大道南山智园 A7 栋, 518055, 13422221111, 赵老师收

Output:

Province: 广东

City: 深圳

District: 南山

Street: 学苑大道

Zip code: 518055

Telephone number: 13422221111