# Advanced Regular Expressions: Takeaways

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## Syntax

#### **CAPTURE GROUPS**

Extracting text using a capture group:

```
s.str.extract(pattern_with_capture_group)
```

• Extracting text using multiple capture groups:

```
s.str.extract(pattern_with_multiple_capture_groups)
```

#### **SUBSTITUTION**

• Substituting a regex match:

```
s.str.replace(pattern, replacement_text)
```

## Concepts

• Capture groups allow us to specify one or more groups within our match that we can access separately.

Pattern	Explanation		
(yes)no	Matches yesno, capturing yes in a single capture group.		
(yes)(no)	Matches yesno, capturing yes and no in two capture groups.		

• Backreferences allow us to repeat a capture group within our regex pattern by referring to them with an integer in the order they are captured.

Pattern	Explanation
(yes)no\1	Matches yesnoyes
(yes)(no)\2\1	Matches yesnonoyes

• Lookarounds let us define a positive or negative match before or after our string.

Pattern	Explanation
zzz(?=abc)	Matches only when it is followed by abc
zzz(?!abc)	Matches zzz only when it is not followed by abc
(?<=abc)zzz	Matches zzz only when it is preceded by abc
(? zzz)abc</th <th>Matches zzz only when it is not preceded by abc</th>	Matches zzz only when it is not preceded by abc

### Resources

- <u>re module</u>
- RegExr Regular Expression Builder



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