



GoCode

We learn by doing, by falling down,
and by picking ourselves back up

[HTTP://GOCODENOW.COM](http://gocodenow.com)



Regular Expressions

```
/Everybody stand back/  
I know regular expressions
```



Regular Expressions (1956)

- 1) Searching**
- 2) Extracting**
- 3) Validating**
- 4) Search and replace**

Note: Django uses regular expressions to match urls.

<http://pythex.org/>



Searching

```
import re
```

```
rg = re.search(r"Python","Search this string for Python")  
rg.group()  
'Python'
```

```
#fail
```

```
rg = re.search(r"\APython","Isn't Python is awesome?")
```

```
rg = re.search(r"\APython","Python is awesome")  
rg.group()  
'Python'
```



Searching and extracting

```
>rg = re.search(r"\d","Day 7")  
>rg.groups()  
'7'
```

```
>rg = re.search(r'^(\d{3})-(\d{3})-(\d{4})$',"212-555-1234")  
>rg.groups()  
('212', '555', '1234')
```

```
rg = re.search(r'(\d{3})-(\d{3})-(\d{4})$',"My phone number is  
212-555-1234")
```

```
>rg.groups()  
('212', '555', '1234')
```



Regular Expressions

```
from django.conf.urls import url
```

```
from . import views
```

```
urlpatterns = [  
    url(r'^articles/2003/$', views.special_case_2003),  
    url(r'^articles/([0-9]{4})/$', views.year_archive),  
    url(r'^articles/([0-9]{4})/([0-9]{2})/$', views.month_archive),  
    url(r'^articles/([0-9]{4})/([0-9]{2})/([0-9]+)/$',  
views.article_detail),  
]
```



Validating

#matches

```
re.match(r"[^@]+@[^@]+\.[^@]+", "me@awesome.com")
```

#fail

```
re.match(r"[^@]+@[^@]+\.[^@]+", "meawesome.com")
```

#fail

```
re.match(r"[^@]+@[^@]+\.[^@]+", "me@awesomecom")
```



Key Points

- 1) Regular expressions are a powerful tool.**
- 2) Can be used to find text based on patterns**
- 3) Can be used to validate and extract data**
- 4) Also build powerful search and replace**



Exceptions

WHENEVER I LEARN A NEW SKILL I CONCOCT ELABORATE FANTASY SCENARIOS WHERE IT LETS ME SAVE THE DAY.

OH NO! THE KILLER MUST HAVE FOLLOWED HER ON VACATION!



BUT TO FIND THEM WE'D HAVE TO SEARCH THROUGH 200 MB OF EMAILS LOOKING FOR SOMETHING FORMATTED LIKE AN ADDRESS!



IT'S HOPELESS!

EVERYBODY STAND BACK.



I KNOW REGULAR EXPRESSIONS.

