68_Adnan Shaikh

Pattern Matching

```
In [1]: import re
```

Extracting values from key:value pair of file

```
In [2]: patt =  re.compile(r'(From|To|Header|Body|:)')

        sample = """
        From:Adnan
        To:user2
        Header:Just a Test
        Body:Randomly Writing some text I don't know about
        """

        print(patt.sub("",sample))
```

```
Adnan
user2
Just a Test
Randomly Writing some text I don't know about
```

Extracting Numbers from text

```
In [3]: patt = re.compile(r'\d+.?[0-9]+|\d+')
        sample = r'f(x)= 3.5*x+5x^2'
        patt.findall(sample)
```

```
Out[3]: ['3.5', '5', '2']
```

Grouping Year, Month and Day in string

```
In [4]: patt = re.compile(r'(?P<year>\d{4})/(?P<month>\d{1,2})/(?P<day>\d{1,2})')
        sample = r"Today is 2022/10/7"
        matched = patt.search(sample)
        matched.groupdict()
```

```
Out[4]: {'year': '2022', 'month': '10', 'day': '7'}
```

```
In [5]:  patt = re.compile(r'\bbaba(ba+)+\b')
         sample = r"and then the sheep says: bababaaaabaabaaa"
         print(f"Sample: {patt.search(sample)}")

         notASample = r"and then the sheep says:bababaaaabaabaaabbbaa"
         print(f"Not a sample: {patt.search(notASample)}")
```

```
Sample: <re.Match object; span=(25, 41), match='bababaaaabaabaaa'>
Not a sample: None
```

. * ^ ? and $ opeartors

```
In [6]:  patt = re.compile(r'^I am Iron (wo)?man .*$')
         sample = r"I am Iron man and I am here to save the planet"
         print(patt.match(sample))
         sample = r"I am Iron woman and I am here to wash the dishes"
         print(patt.match(sample))
         sample = r"I am Iron boy and I am here to play"
         print(patt.match(sample))
```

```
<re.Match object; span=(0, 46), match='I am Iron man and I am here to save t
he planet'>
<re.Match object; span=(0, 48), match='I am Iron woman and I am here to wash
the dishes'>
None
```