

##Assignment No.05##

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##Roll No: 16

#Batch: B1

#Title : Regular Expression using python re library

```
import re
```

```
def find_entities(text):
```

```
    result = {
        'URLs': re.findall(r'https?://\S+|www\.\S+', text),
        'IP Addresses': re.findall(r'\b(?:\d{1,3}\.){3}\d{1,3}\b', text),
        'Dates': re.findall(r"(?:[0-2]?[0-9]|3[01])\V(?:0[1-9]|1[0-2])\V(?:19|20)\d{2})", text),
        'PAN Numbers': re.findall(r'[A-Z]{5}[0-9]{4}[A-Z]', text),
    }
    return result
```

Example usage:

```
sample_text = """
```

First Dataset

Visit our website at <https://www.openai.com>.

For support, contact us at support@openai.com.

IP address: 192.154.0.1

Date: 11/02/2012

PAN number: GBFPP3452P

Second Dataset

Visit our website at <https://www.netflix.com>.

For more info connect with contact@netflix.com.

IP address: 192.168.2.1

Date: 23/01/2003

PAN number: CYRKD1290J

```
"""
```

```
result = find_entities(sample_text)
```

```
for entity_type, entities in result.items():
```

```
    print(f'{entity_type}: {entities}')
```

```
"""
```

Output:

URLs: ['https://www.openai.com.', 'https://www.netflix.com.']

IP Addresses: ['192.154.0.1', '192.168.2.1']

Dates: ['11/02/2012', '23/01/2003']

PAN Numbers: ['GBFPP3452P', 'CYRKD1290J']

```
"""
```