# CMS COLLEGE OF ENGINEERING AND TECHNOLOGY

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

INTELLIGENT VEHICLE DAMAGE ASSESSMENT & COST ESTIMATOR FOR INSURANCE COMPANIES-**ASSIGNMENT 1**

**DATE** : 26-09-2022

**PROBLEM :** TO ANSWER THE QUESTIONS FOR THE ANSWERS

**NAME** :BOOMIKA K

## OUTPUT:

## SCREENSHOT:

### Basic Python

#### 1. Split this string

```
In [1]: s = "Hi there Sam!"
        s=s.split()
        print(s);
```

```
['Hi', 'there', 'Sam!']
```

```
In [ ]:
```

#### 2. Use .format() to print the following string.

**Output should be: The diameter of Earth is 12742 kilometers.**

```
In [ ]: planet = "Earth"
        diameter = 12742
```

```
In [2]: planet = "Earth"
        diameter = 12742
        print( 'The diameter of {} is {} kilometers.' .format(planet,diameter));
```

```
The diameter of Earth is 12742 kilometers.
```

### 3. In this nest dictionary grab the word "hello"

In [ ]:
```
d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
```

In [3]:
```
lst = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]
a=lst[3][1][2];
print(a)
```

```
['hello']
```

## Numpy

In [ ]:
```
import numpy as np
```

### 4.1 Create an array of 10 zeros?

### 4.2 Create an array of 10 fives?

In [4]:
```
import numpy as np
array=np.zeros(10)
print("An array of 10 zeros:")
print(array)
array=np.ones(10)*5
print("An array of 10 fives:")
print(array)
```

```
An array of 10 zeros:
[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]
An array of 10 fives:
[5. 5. 5. 5. 5. 5. 5. 5. 5. 5.]
```

In [ ]:
```

```

### 5. Create an array of all the even integers from 20 to 35

In [5]:
```
import numpy as np
array=np.arange(20,36)
print("Array of the integers from 20 to 35 ")
print(array)
```

```
Array of the integers from 20 to 35
[20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35]
```

### 6. Create a 3x3 matrix with values ranging from 0 to 8

In [6]:
```
import numpy as np
np.arange(0,9).reshape((3,3))
([[0, 1, 2],
 [3, 4, 5],
 [6, 7, 8]])
```

Out[6]:
```
[[0, 1, 2], [3, 4, 5], [6, 7, 8]]
```

## 9. Generate the series of dates from 1st Jan, 2023 to 10th Feb, 2023

In [9]:
```
import pandas as pd
d = pd.date_range(start='1/1/2023',end='10/2/2023')
print(d)
```

```
DatetimeIndex(['2023-01-01', '2023-01-02', '2023-01-03', '2023-01-04',
               '2023-01-05', '2023-01-06', '2023-01-07', '2023-01-08',
               '2023-01-09', '2023-01-10',
               ...
               '2023-09-23', '2023-09-24', '2023-09-25', '2023-09-26',
               '2023-09-27', '2023-09-28', '2023-09-29', '2023-09-30',
               '2023-10-01', '2023-10-02'],
              dtype='datetime64[ns]', length=275, freq='D')
```

## 10. Create 2D list to DataFrame

lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]

In [ ]:
```
lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
```

In [10]:
```
import pandas as pd
a=[[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
print(type(a))

for b in a:
    for j in b:
        print(j)

dt=zip(a)
df=pd.DataFrame(dt,columns=["d"])
print(type(df))
print(df)
```