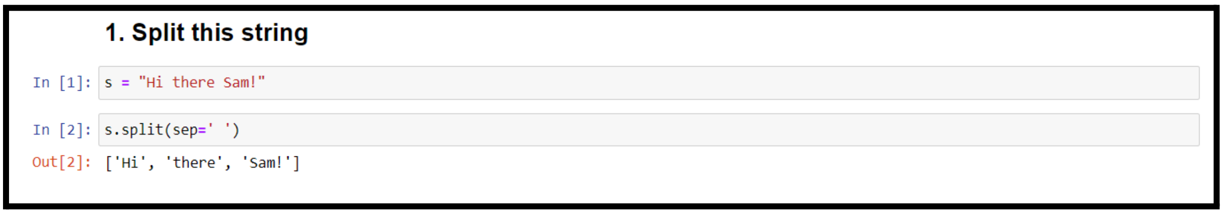
# UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

# ASSIGNMENT - 1

| | |
|---|---|
| Date | 13th September 2022 |
| Team ID | PNT2022TMID27839 |
| Student Name | Chandan Kumar A K (311519104010) |
| Domain Name | Education |
| Project Name | University Admit Eligibility Predictor |
| Maximum Marks | 2 Marks |

## 1.)SPLIT THE STRING

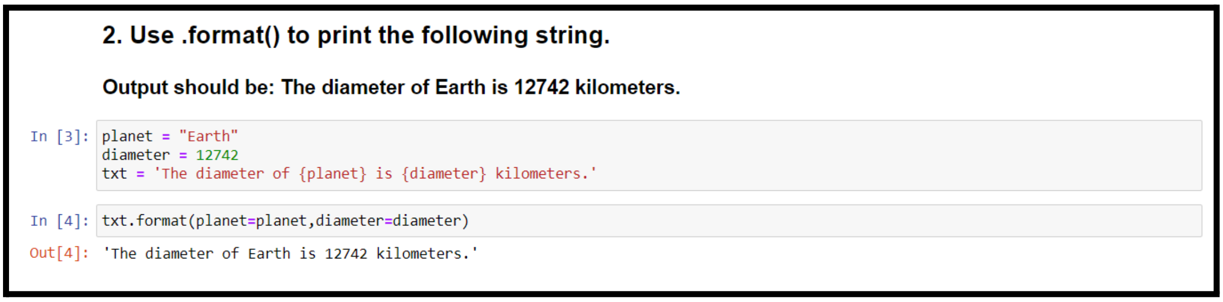


**1. Split this string**

```
In [1]: s = "Hi there Sam!"

In [2]: s.split(sep=' ')
Out[2]: ['Hi', 'there', 'Sam!']
```

## 2.)USE .format() TO PRINT THE FOLLOWING STRING



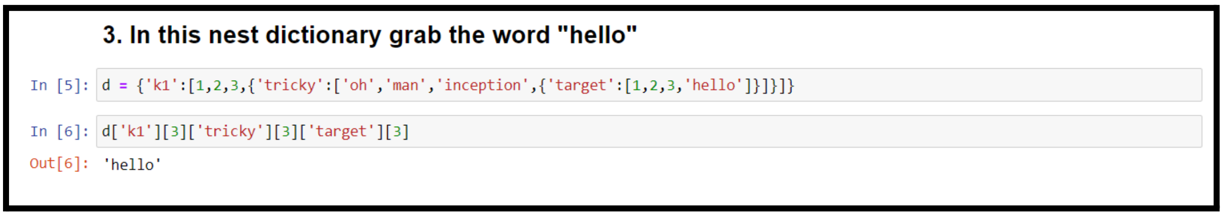
**2. Use .format() to print the following string.**

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

```
In [3]: planet = "Earth"
        diameter = 12742
        txt = 'The diameter of {planet} is {diameter} kilometers.'

In [4]: txt.format(planet=planet,diameter=diameter)
Out[4]: 'The diameter of Earth is 12742 kilometers.'
```

## 3.)IN THE NEST DICTIONARY GRAB THE WORD “HELLO”



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

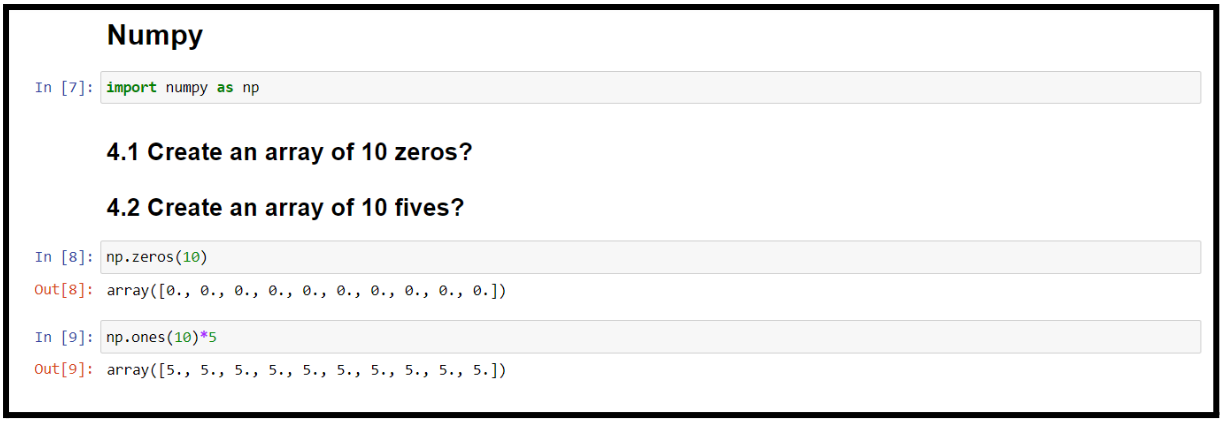
```
In [5]: d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}

In [6]: d['k1'][3]['tricky'][3]['target'][3]
Out[6]: 'hello'
```

# 4.) NUMPY

## 1.) CREATE AN ARRAY OF 10 ZEROS

## 2.) CREATE AN ARRAY OF 10 FIVES



### Numpy

```
In [7]: import numpy as np
```

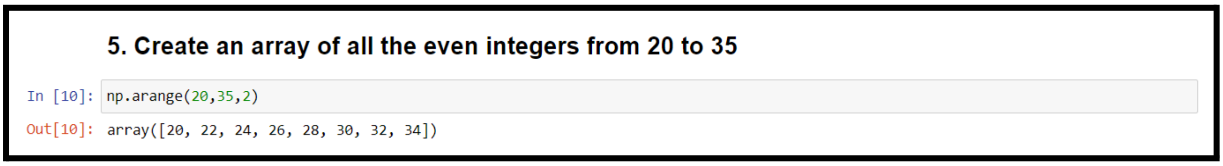
#### 4.1 Create an array of 10 zeros?

#### 4.2 Create an array of 10 fives?

```
In [8]: np.zeros(10)
Out[8]: array([0., 0., 0., 0., 0., 0., 0., 0., 0., 0.])

In [9]: np.ones(10)*5
Out[9]: array([5., 5., 5., 5., 5., 5., 5., 5., 5., 5.])
```

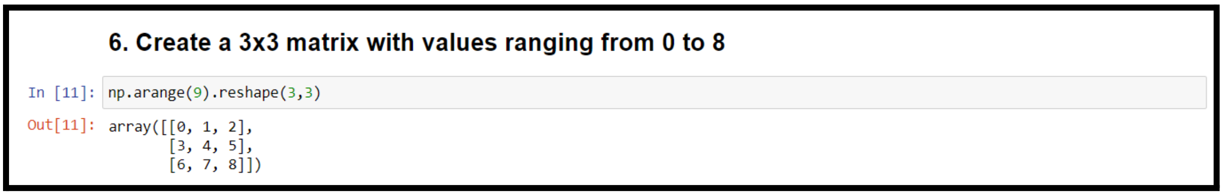
# 5.)CREATE ARRAY OF ALL THE EVEN INTEGERS FROM 20 to 35



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

```
In [10]: np.arange(20,35,2)
Out[10]: array([20, 22, 24, 26, 28, 30, 32, 34])
```

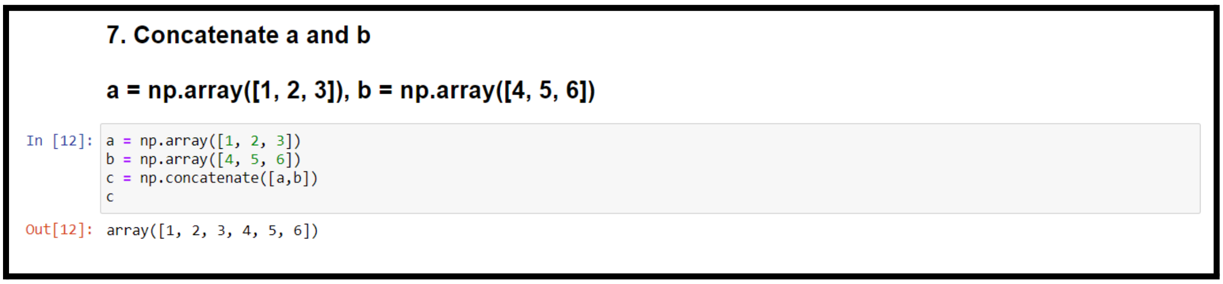
# 6.)CREATE A 3x3 MATRIX WITH VALUES FROM 0 to 8



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

```
In [11]: np.arange(9).reshape(3,3)
Out[11]: array([[0, 1, 2],
                [3, 4, 5],
                [6, 7, 8]])
```

# 7.)CONCATENATE a AND b



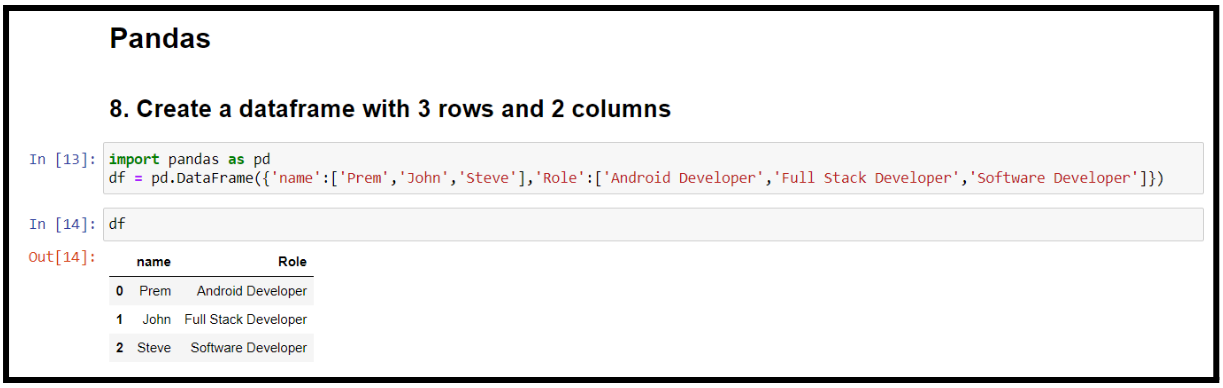
### 7. Concatenate a and b

### a = np.array([1, 2, 3]), b = np.array([4, 5, 6])

```
In [12]: a = np.array([1, 2, 3])
         b = np.array([4, 5, 6])
         c = np.concatenate([a,b])
         c

Out[12]: array([1, 2, 3, 4, 5, 6])
```

# 8.) PANDAS
# CREATE A DATAFRAME WITH 3 ROWS AND 2 COLUMNS



## Pandas

### 8. Create a dataframe with 3 rows and 2 columns

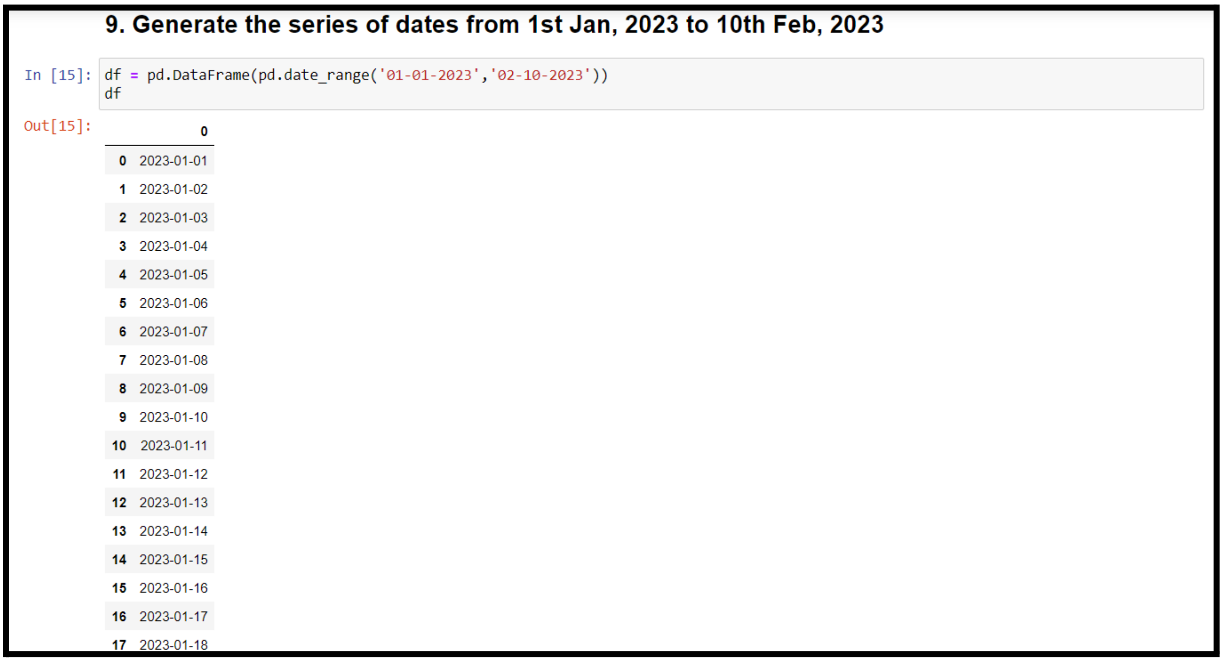
```
In [13]: import pandas as pd
         df = pd.DataFrame({'name':['Prem','John','Steve'],'Role':['Android Developer','Full Stack Developer','Software Developer']})

In [14]: df

Out[14]:
```

| | name | Role |
|---|---|---|
| 0 | Prem | Android Developer |
| 1 | John | Full Stack Developer |
| 2 | Steve | Software Developer |

# 9.) GENERATE THE SERIES OF DATES
# FROM 1st JAN 2023 TO 10th FEB 2023



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

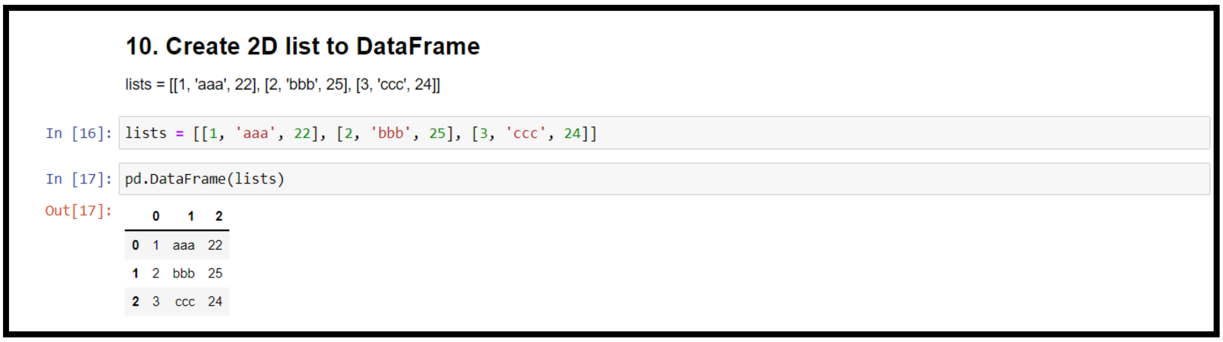
```
In [15]: df = pd.DataFrame(pd.date_range('01-01-2023','02-10-2023'))
         df

Out[15]:
```

| | 0 |
|---|---|
| 0 | 2023-01-01 |
| 1 | 2023-01-02 |
| 2 | 2023-01-03 |
| 3 | 2023-01-04 |
| 4 | 2023-01-05 |
| 5 | 2023-01-06 |
| 6 | 2023-01-07 |
| 7 | 2023-01-08 |
| 8 | 2023-01-09 |
| 9 | 2023-01-10 |
| 10 | 2023-01-11 |
| 11 | 2023-01-12 |
| 12 | 2023-01-13 |
| 13 | 2023-01-14 |
| 14 | 2023-01-15 |
| 15 | 2023-01-16 |
| 16 | 2023-01-17 |
| 17 | 2023-01-18 |

| | |
|---|---|
| **18** | 2023-01-19 |
| **19** | 2023-01-20 |
| **20** | 2023-01-21 |
| **21** | 2023-01-22 |
| **22** | 2023-01-23 |
| **23** | 2023-01-24 |
| **24** | 2023-01-25 |
| **25** | 2023-01-26 |
| **26** | 2023-01-27 |
| **27** | 2023-01-28 |
| **28** | 2023-01-29 |
| **29** | 2023-01-30 |
| **30** | 2023-01-31 |
| **31** | 2023-02-01 |
| **32** | 2023-02-02 |
| **33** | 2023-02-03 |
| **34** | 2023-02-04 |
| **35** | 2023-02-05 |
| **36** | 2023-02-06 |
| **37** | 2023-02-07 |
| **38** | 2023-02-08 |
| **39** | 2023-02-09 |
| **40** | 2023-02-10 |

# 10.) CREATE 2D LIST TO DATAFRAME



## 10. Create 2D list to DataFrame

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

```
In [16]: lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
```

```
In [17]: pd.DataFrame(lists)
```

Out[17]:

| | 0 | 1 | 2 |
|---|---|---|---|
| **0** | 1 | aaa | 22 |
| **1** | 2 | bbb | 25 |
| **2** | 3 | ccc | 24 |