Basic Python

▼ 1. Split this string

```
s = "Hi there Sam!"
X=s.split()
print(X)
['Hi', 'there', 'Sam!']
```

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

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

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

Numpy

```
import numpy as np
```

- ▼ 4.1 Create an array of 10 zeros?
 - 4.2 Create an array of 10 fives?

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

```
print(np.arange(20,35,2))
  [20 22 24 26 28 30 32 34]
```

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

▼ 7. Concatinate a and b

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

```
a=np.array([1,2,3])
```

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

Pandas

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

```
import pandas as pd

a=pd.DataFrame()
print(a)

Empty DataFrame
Columns: []
Index: []
```

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

```
import datetime
import pandas
test_date = datetime.datetime.strptime("01-01-2023","%d-%m-%Y")
k=41
date_generated = pd.date_range(test_date,periods=k)
print(date_generated.strftime("%d-%m-%Y"))

Index(['01-01-2023', '02-01-2023', '03-01-2023', '04-01-2023', '05-01-2023', '06-01-2023', '07-01-2023', '08-01-2023', '10-01-2023', '11-01-2023', '12-01-2023', '13-01-2023', '14-01-2023', '15-01-2023', '16-01-2023', '17-01-2023', '18-01-2023', '19-01-2023', '20-01-2023', '21-01-2023', '22-01-2023', '23-01-2023', '24-01-2023', '25-01-2023', '26-01-2023', '27-01-2023', '28-01-2023', '29-01-2023', '30-01-2023', '31-01-2023', '01-02-2023', '02-02-2023', '03-02-2023', '04-02-2023', '05-02-2023', '06-02-2023', '07-02-2023', '08-02-2023', '09-02-2023', '10-02-2023'], dtype='object')
```

▼ 10. Create 2D list to DataFrame

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