SMARTBRIDGE EXTERNSHIP

APPLIED DATA SCIENCE

ASSIGNMENT-1

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```
[2] name='Peddibhotla Sree Rakshitha'
    age='20'
    print(name)
    print(age)

    Peddibhotla Sree Rakshitha
    20
```

```
[1] x = "Datascience is used to extract meaningful insights."
    print(x.split())

    ['Datascience', 'is', 'used', 'to', 'extract', 'meaningful', 'insights.']
```

```
    def multiplication(n1,n2):
     product = n1*n2
     return product
    res=multiplication(1438,589)
    print(res)

    846982
```

```
[7] Dictionary = {'Telangana':'Hyderabad','Andhra Pradesh' : 'Amaravathi', 'Tamil Nadu' : 'Chennai','Karnataka':'Bengaluru','Kerala':'Thiruvanathapuram'
    ,}
    print(Dictionary)
    print(Dictionary.keys())
    print(Dictionary.values())

[7] {'Telangana': 'Hyderabad', 'Andhra Pradesh': 'Amaravathi', 'Tamil Nadu': 'Chennai', 'Karnataka': 'Bengaluru', 'Kerala': 'Thiruvanathapuram'}
    dict_keys(['Telangana', 'Andhra Pradesh', 'Tamil Nadu', 'Karnataka', 'Kerala'])
    dict_values(['Hyderabad', 'Amaravathi', 'Chennai', 'Bengaluru', 'Thiruvanathapuram'])
```

```
[9] def createList(n1, n2):
     return list(range(n1, n2+1))
    n1, n2=1, 1000
    print(createList(1,1000))

    [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50,
```

```
    import numpy as np
    dim = 4
    identity_matrix=np.identity(dim, dtype="int")
    print(identity_matrix)

    [[1 0 0 0]
     [0 1 0 0]
     [0 0 1 0]
     [0 0 0 1]]
```

```
[11] import numpy as np
     x=np.arange(1,10).reshape(3,3)
     print(x)

     [[1 2 3]
      [4 5 6]
      [7 8 9]]
```

```
[12] import numpy as np
     arr1=[2, 3, 4, 5]
     arr2=[6, 7, 8, 9]
     sum = np.add(arr1, arr2)
     print(sum)
```

```
[ 8 10 12 14]
```

```
from datetime import datetime
import pandas as pd
start_date=datetime.strptime("2023-02-01", "%Y-%m-%d")
end_date=datetime.strptime("2023-03-01", "%Y-%m-%d")
D='D'
date_list = pd.date_range(start_date, end_date, freq=D)
print(f"Creating list of dates starting from{start_date} to {end_date}")
print(date_list)
```

```
Creating list of dates starting from2023-02-01 00:00:00 to 2023-03-01 00:00:00
DatetimeIndex(['2023-02-01', '2023-02-02', '2023-02-03', '2023-02-04',
               '2023-02-05', '2023-02-06', '2023-02-07', '2023-02-08',
               '2023-02-09', '2023-02-10', '2023-02-11', '2023-02-12',
               '2023-02-13', '2023-02-14', '2023-02-15', '2023-02-16',
               '2023-02-17', '2023-02-18', '2023-02-19', '2023-02-20',
               '2023-02-21', '2023-02-22', '2023-02-23', '2023-02-24',
               '2023-02-25', '2023-02-26', '2023-02-27', '2023-02-28',
               '2023-03-01'],
              dtype='datetime64[ns]', freq='D')
```

```
import pandas as pd
data={'Brand' : ['Maruti', 'Renault', 'Hyndai'], 'Sales' : ['250', '200', '240']}
```

```
import pandas as pd
data={'Brand' : ['Maruti', 'Renault', 'Hyndai'], 'Sales' : ['250', '200', '240']}
dataframe = pd.DataFrame.from_dict(data)
print(dataframe)
```

```
     Brand Sales
0   Maruti   250
1  Renault   200
2   Hyndai   240
```