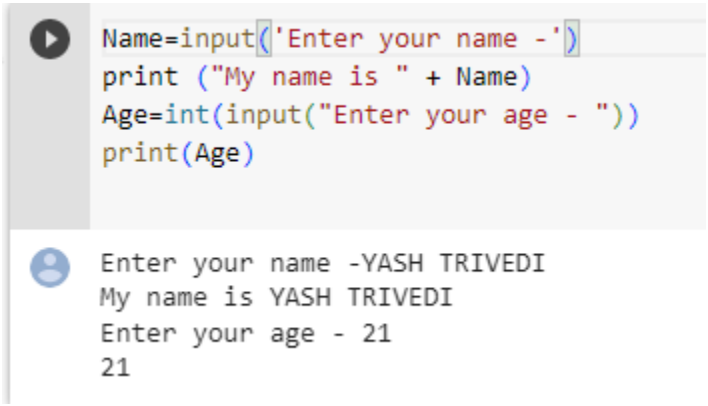
Assignment-1

NAME: YASH TRIVEDI

1.



```
Name=input('Enter your name -')
print ("My name is " + Name)
Age=int(input("Enter your age - "))
print(Age)
```

```
Enter your name -YASH TRIVEDI
My name is YASH TRIVEDI
Enter your age - 21
21
```

Code:

```
Name=input('Enter your name -')
print ("My name is " + Name)
Age=int(input("Enter your age - "))
print(Age)
```

Output:

```
Enter your name -YASH TRIVEDI
My name is YASH TRIVEDI
Enter your age - 21
21
```

2.

Code:

```
txt = "Data science is used to extract meaningful insights."
x = txt.split()
print(x)
```

Output:

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

3.

Code:

a=int(input("Enter the first number : "))

b=int(input("Enter the second number : ")) c=a*b

print(c)

Output:

```
Enter the first number : 10
Enter the second number : 8
80
```

4.

Code:

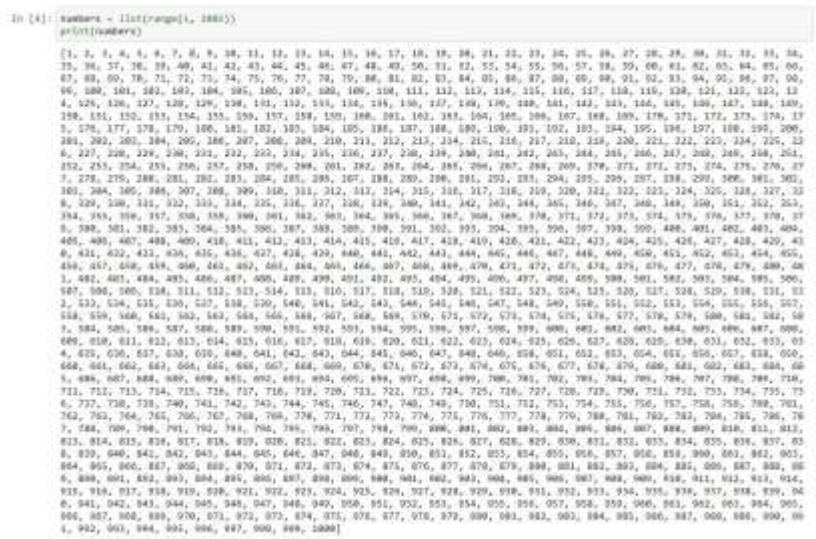
capital_city = {"Haryana": "Chandigarh", "Himachal Pradesh": "Shimla", "Rajasthan": "Jaipur" , "Bihar": "Patna" , "Uttar Pradesh": "Lucknow"}
print(capital_city)

Output:

```
{'Haryana': 'Chandigarh', 'Himachal Pradesh': 'Shimla', 'Rajasthan':
'Jaipur', 'Bihar': 'Patna', 'Uttar Pradesh': 'Lucknow'}
```

1. **Keys** are "Haryana", "Himachal Pradesh", "Rajasthan", ”Bihar”, “Uttar Pradesh” 2. **Values** are "Chandigarh", "Shimla", “Jaipur”, “Patna” , “Lucknow”

5.



Code:

numbers = list(range(1, 1001))

print(numbers)

6.

Code:

import numpy as np

dimension = int(input("Enter the dimension of identitiy matrix: ")) identity_matrix = np.identity(dimension, dtype="int") print(identity_matrix)

Output:

```
Enter the dimension of identitiy matrix: 4
[[1 0 0 0]
 [0 1 0 0]
 [0 0 1 0]
 [0 0 0 1]]
```

7.

Code:

```
import numpy as np

x = np.arange(1, 10).reshape(3,3)

print(x)
```

Output:

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

8.

```
In [10]: import numpy as np
         x = np.array([[1, 2],[3, 4],[5, 6]])
         print(x)
         b=np.sum(x)
         print(b)

         [[1 2]
          [3 4]
          [5 6]]
         21

In [ ]:
```

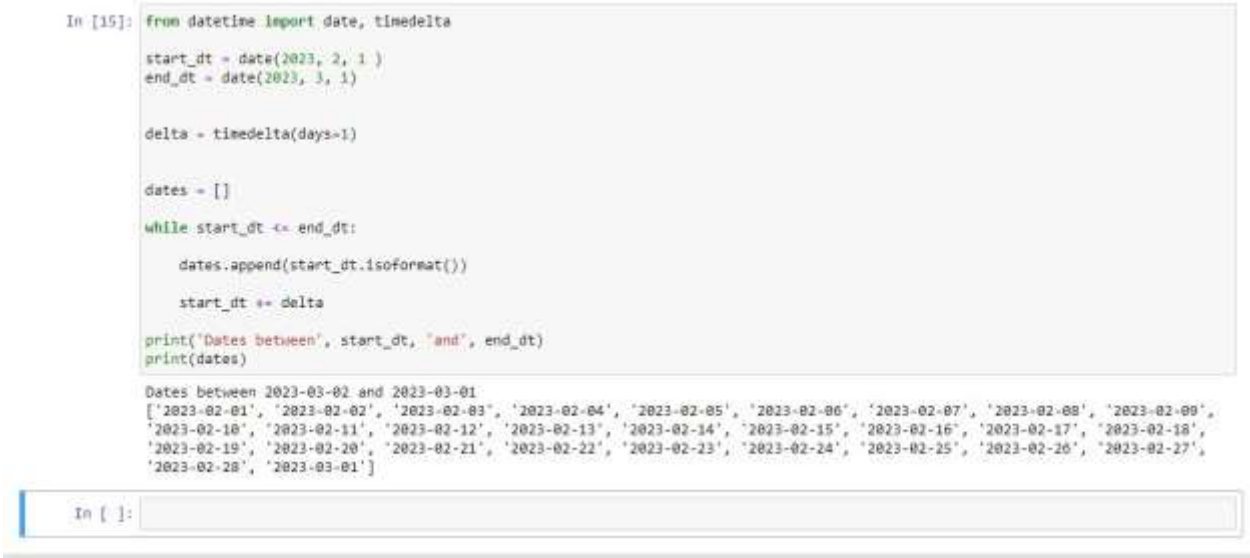
Code:

```
import numpy as np

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

print(x) b=np.sum(x) print(b)
```

Output:

```
[[1 2]
 [3 4]
 [5 6]]
21
```

9.



```
In [15]: from datetime import date, timedelta

         start_dt = date(2023, 2, 1 )
         end_dt = date(2023, 3, 1)


         delta = timedelta(days=1)


         dates = []

         while start_dt <= end_dt:

             dates.append(start_dt.isoformat())

             start_dt += delta

         print('Dates between', start_dt, 'and', end_dt)
         print(dates)

         Dates between 2023-03-02 and 2023-03-01
         ['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']

In [ ]:
```

Code:

```
from datetime import date, timedelta
    start_dt = date(2023, 2, 1 ) end_dt
    = date(2023, 3, 1)
 delta = timedelta(days=1)
 dates = []
 while start_dt <= end_dt:
dates.append(start_dt.isoformat())
start_dt += delta
print('Dates between', start_dt, 'and', end_dt) print(dates)
```

10.

```
In [17]: import pandas as pd

details = {
    'Brand' : ['Maruti', 'Renault', 'Hyundai'],

    'Sales' : [250,200,240],
}

df = pd.DataFrame(details)

df
```

Out[17]:

	Brand	Sales
0	Maruti	250
1	Renault	200
2	Hyundai	240

Code:

```
import pandas as pd

details = { 'Brand' : ['Maruti', 'Renault', 'Hyundai'], 'Sales' : [250,200,240],}

df = pd.DataFrame(details)

df
```

Output:

	Brand	Sales
0	Maruti	250
1	Renault	200
2	Hyundai	240