In [24]:

```
#ASSIGNMENT 1
```

In [23]:

```
import numpy as np
```

In [2]:

```
name = "Triparna Poddar"
age = str(22)
print("My name is "+name+" and I am "+age+" years old")
```

```
My name is Triparna Poddar and I am 22 years old
```

In [3]:

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

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

In [4]:

```
def mult(a,b):
    c = a*b
    return c
mult(5,6)
```

Out[4]:

```
30
```

In [6]:

```
info = {"India":"Delhi","Rajasthan":"Jaipur","Uttarakhand":"Dehradun","J&K":"Srinagar","
for key, value in info.items():
    print(key, ":", value)
```

```
India : Delhi
Rajasthan : Jaipur
Uttarakhand : Dehradun
J&K : Srinagar
Nagaland : Kohima
```

In [10]:

```
for num in range(0, 5000, 5):
    print(num, end=" ")
```

```
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115
120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 21
0 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300
305 310 315 320 325 330 335 340 345 350 355 360 365 370 375 380 385 390 39
5 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485
490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 58
0 585 590 595 600 605 610 615 620 625 630 635 640 645 650 655 660 665 670
675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750 755 760 76
5 770 775 780 785 790 795 800 805 810 815 820 825 830 835 840 845 850 855
860 865 870 875 880 885 890 895 900 905 910 915 920 925 930 935 940 945 95
0 955 960 965 970 975 980 985 990 995 1000 1005 1010 1015 1020 1025 1030 1
035 1040 1045 1050 1055 1060 1065 1070 1075 1080 1085 1090 1095 1100 1105
1110 1115 1120 1125 1130 1135 1140 1145 1150 1155 1160 1165 1170 1175 1180
1185 1190 1195 1200 1205 1210 1215 1220 1225 1230 1235 1240 1245 1250 1255
1260 1265 1270 1275 1280 1285 1290 1295 1300 1305 1310 1315 1320 1325 1330
1335 1340 1345 1350 1355 1360 1365 1370 1375 1380 1385 1390 1395 1400 1405
1410 1415 1420 1425 1430 1435 1440 1445 1450 1455 1460 1465 1470 1475 1480
1485 1490 1495 1500 1505 1510 1515 1520 1525 1530 1535 1540 1545 1550 1555
1560 1565 1570 1575 1580 1585 1590 1595 1600 1605 1610 1615 1620 1625 1630
1635 1640 1645 1650 1655 1660 1665 1670 1675 1680 1685 1690 1695 1700 1705
1710 1715 1720 1725 1730 1735 1740 1745 1750 1755 1760 1765 1770 1775 1780
1785 1790 1795 1800 1805 1810 1815 1820 1825 1830 1835 1840 1845 1850 1855
1860 1865 1870 1875 1880 1885 1890 1895 1900 1905 1910 1915 1920 1925 1930
1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005
2010 2015 2020 2025 2030 2035 2040 2045 2050 2055 2060 2065 2070 2075 2080
2085 2090 2095 2100 2105 2110 2115 2120 2125 2130 2135 2140 2145 2150 2155
2160 2165 2170 2175 2180 2185 2190 2195 2200 2205 2210 2215 2220 2225 2230
2235 2240 2245 2250 2255 2260 2265 2270 2275 2280 2285 2290 2295 2300 2305
2310 2315 2320 2325 2330 2335 2340 2345 2350 2355 2360 2365 2370 2375 2380
2385 2390 2395 2400 2405 2410 2415 2420 2425 2430 2435 2440 2445 2450 2455
2460 2465 2470 2475 2480 2485 2490 2495 2500 2505 2510 2515 2520 2525 2530
2535 2540 2545 2550 2555 2560 2565 2570 2575 2580 2585 2590 2595 2600 2605
2610 2615 2620 2625 2630 2635 2640 2645 2650 2655 2660 2665 2670 2675 2680
2685 2690 2695 2700 2705 2710 2715 2720 2725 2730 2735 2740 2745 2750 2755
2760 2765 2770 2775 2780 2785 2790 2795 2800 2805 2810 2815 2820 2825 2830
2835 2840 2845 2850 2855 2860 2865 2870 2875 2880 2885 2890 2895 2900 2905
2910 2915 2920 2925 2930 2935 2940 2945 2950 2955 2960 2965 2970 2975 2980
2985 2990 2995 3000 3005 3010 3015 3020 3025 3030 3035 3040 3045 3050 3055
3060 3065 3070 3075 3080 3085 3090 3095 3100 3105 3110 3115 3120 3125 3130
3135 3140 3145 3150 3155 3160 3165 3170 3175 3180 3185 3190 3195 3200 3205
3210 3215 3220 3225 3230 3235 3240 3245 3250 3255 3260 3265 3270 3275 3280
3285 3290 3295 3300 3305 3310 3315 3320 3325 3330 3335 3340 3345 3350 3355
3360 3365 3370 3375 3380 3385 3390 3395 3400 3405 3410 3415 3420 3425 3430
3435 3440 3445 3450 3455 3460 3465 3470 3475 3480 3485 3490 3495 3500 3505
3510 3515 3520 3525 3530 3535 3540 3545 3550 3555 3560 3565 3570 3575 3580
3585 3590 3595 3600 3605 3610 3615 3620 3625 3630 3635 3640 3645 3650 3655
3660 3665 3670 3675 3680 3685 3690 3695 3700 3705 3710 3715 3720 3725 3730
3735 3740 3745 3750 3755 3760 3765 3770 3775 3780 3785 3790 3795 3800 3805
3810 3815 3820 3825 3830 3835 3840 3845 3850 3855 3860 3865 3870 3875 3880
3885 3890 3895 3900 3905 3910 3915 3920 3925 3930 3935 3940 3945 3950 3955
3960 3965 3970 3975 3980 3985 3990 3995 4000 4005 4010 4015 4020 4025 4030
4035 4040 4045 4050 4055 4060 4065 4070 4075 4080 4085 4090 4095 4100 4105
4110 4115 4120 4125 4130 4135 4140 4145 4150 4155 4160 4165 4170 4175 4180
4185 4190 4195 4200 4205 4210 4215 4220 4225 4230 4235 4240 4245 4250 4255
4260 4265 4270 4275 4280 4285 4290 4295 4300 4305 4310 4315 4320 4325 4330
4335 4340 4345 4350 4355 4360 4365 4370 4375 4380 4385 4390 4395 4400 4405
4410 4415 4420 4425 4430 4435 4440 4445 4450 4455 4460 4465 4470 4475 4480
4485 4490 4495 4500 4505 4510 4515 4520 4525 4530 4535 4540 4545 4550 4555
4560 4565 4570 4575 4580 4585 4590 4595 4600 4605 4610 4615 4620 4625 4630
4635 4640 4645 4650 4655 4660 4665 4670 4675 4680 4685 4690 4695 4700 4705
4710 4715 4720 4725 4730 4735 4740 4745 4750 4755 4760 4765 4770 4775 4780
```

```
4785 4790 4795 4800 4805 4810 4815 4820 4825 4830 4835 4840 4845 4850 4855
4860 4865 4870 4875 4880 4885 4890 4895 4900 4905 4910 4915 4920 4925 4930
4935 4940 4945 4950 4955 4960 4965 4970 4975 4980 4985 4990 4995
```

In [12]:

```
mat = np.eye(4)
print(mat)
```

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

In [13]:

```
values = np.arange(1,10)
value = np.reshape(values, (3,3))
print(value)
```

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

In [16]:

```
values = np.arange(1,10)
value = np.reshape(values, (3,3))
values2 = np.arange(11,20)
value2 = np.reshape(values2, (3,3))
print(value+value2)
```

```
[[12 14 16]
 [18 20 22]
 [24 26 28]]
```

In [20]:

```
from datetime import datetime,timedelta
sd = datetime(2023,2,1)
ed = datetime(2023,3,1)
cd =sd
while cd <= ed:
    print(cd.strftime("%Y-%m-%d"))
    cd += timedelta(days=1)
```

```
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 [22]:

```
import pandas as pd

# Define the dictionary
data = {
    'Brand': ['Maruti', 'Renault', 'Hyundai'],
    'Sales': [250, 200, 240]
}

# Convert dictionary to dataframe
df = pd.DataFrame(data)

# Display the dataframe
print(df)
```

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

In [ ]: