1)Code:
```
import numpy as np
matrix=np.array([[1,2,3],[4,5,6],[7,8,9]])
print(matrix)
print(matrix*2)
print(matrix+5)
print(matrix**2)
```
Output:
```
[[1 2 3]
 [4 5 6]
 [7 8 9]]
[[ 2  4  6]
 [ 8 10 12]
 [14 16 18]]
[[ 6  7  8]
 [ 9 10 11]
 [12 13 14]]
[[ 1  4  9]
 [16 25 36]
 [49 64 81]]
```

2)code:
```
import numpy as np
matrix=np.array([[1,2,3],[4,5,6],[7,8,9]])
print(matrix[0,:])#gives first row
print(matrix[:,2])#gives last column
print(matrix[1:3,1:3])#gives 2x2 matrix of center
```
Output:
```
[1 2 3]
[3 6 9]
[[5 6]
 [8 9]]
```

3)code:
```
import pandas as pd
data={
    "Name":["gowthami","anu","gopal","ram","arjun","hima","sree","jai","vijay","amar"],
    "Marks":[99,90,89,70,67,90,80,73,45,100]}
df=pd.DataFrame(data)
print(df)
```
output:
```
     Name  Marks
0  gowthami    99
1      anu    90
2    gopal    89
3      ram    70
4    arjun    67
5     hima    90
6     sree    80
7      jai    73
8    vijay    45
9     amar   100
```

4)code:
```
import pandas as pd
data={
    "Employee_name":["gowthami","anu","gopal","ram","sree"],
```

```
    "Income":[100000,200000,100000,500000,30000]}
df=pd.DataFrame(data,index=['a','b','c','d','e'])
print(df)
```
output:
```
 Employee_name  Income
a     gowthami  100000
b          anu  200000
c        gopal  100000
d          ram  500000
e         sree   30000
```

5)code:
```
import matplotlib.pyplot as plt
x = ['A', 'B', 'C', 'D', 'E']
y = [10, 20, 15, 25, 30]
plt.bar(x,y)
plt.show()
```
output: