

Jupyter notebook

```
import numpy as np
```

create an array

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

```
print(a)
```

2d array

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

```
print(a)
```

3d array

```
a = np.array([(1,2,3),(4,5,6),(8,7,9)])
```

```
print(a)
```

```
a = np.array([1,2,3,4,5,6,7],[8,9,10,11,12,13,14])
```

```
print(a)           //print array
```

```
print(a[1,2])      //print 2 row's 3 element(indexed 0 starting)
```

```
arr = np.array([1,2,3,4,5,6,7,8,9,10])
```

```
print(arr[2:7])    //print array in range
```

```
print(arr[2:7:2])  //print array in range with 2 number jump
```

```
arr = np.array([(1,2,3,4,5,6,7),(8,9,10,11,12,13,14)])
```

```
print(arr[1][2])   //print element of 1 indexed row's 2 indexed element
```

```
print(arr[1,1:6])  //print elements in range of 1 indexed row's 1 indexed element to 6 indexed
```

```
import numpy as np
```

```
arr = np.arange(1,51)           //print 1-50 numbers
```

```
print(arr)
```

```
print(arr[3:9])                //print 3-9 elements slicing
```

```
print(arr[3:9:2])              //print 3-9 slicing with 2 jump
```

```
arr = np.arange(1,101)         //print 1-100  chalu 1 thi karo and 100 number sudhi print
```

```
print(arr)
```

```
arr = np.arange(51,61)
```

```
print(arr)                   //print 51 to 60
```

```
print("Size of array:- ",format(arr.itemsize)) //size of array
```

```
arr = np.arange(1,10)
```

```
print(arr.reshape(3,3))      //matrix by range
```

```
arr = np.array([1,2,3,4,5,6,7,8,9])
```

```
print(arr.reshape(3,3))      //matrix by array
```

```
print(arr.shape)
```

```
arr = np.arange(0,125,5)    //print 25 elements divisible by 5 (0-125 ma 5 jump karta elements)
print(arr)
print(arr.reshape(5,5))    //print 5*5 matrix array_name.reshape(rows,cols)
```

```
arr1 = np.arange(1,10)
print(arr1)                //print array1 1-10
print(arr1.reshape(3,3))   //print 3*3 matrix
arr2 = np.arange(11,20)
print(arr2)                //print array 11-20
print(arr2.reshape(3,3))   //print 3*3 matrix
a = np.vstack((arr1,arr2)) //vstack vertical stack function to print array
b = np.hstack((arr1,arr2)) //h stack horizontal stack function to print array
print(a)
print(b)
```

---

## Panda

```
import pandas as pd
df = pd.read_csv("employee.csv")
df
```

### First 5 print

```
df.head()
```

### First specific number of data

```
df.head(7)
```

### Last 5 print

```
df.tail()
```

### Last specific number of data

```
df.tail(6)
```

### Specific row

```
df['Salary']
```

### Specific column

```
df.iloc[index]
```

```
df.iloc[4]
```

### Gender Female print

```
df.loc[df['Gender']=='F']
```

### salary max

```
df.loc[df['Salary'].idxmax]
```

### Salary min

```
df.loc[df['Salary'].idxmin]
```

### Woman with higher salary

```
a = df.loc[df['Gender'] == 'F']  
a.loc[a['Salary'].idxmax]
```

### Check if data is null (True False)

```
df.isnull()
```

### Check if data of not null (True or False)

```
df.notnull()
```

### fill empty cell

```
df.fillna("Filled")
```

### mean of salary

```
df['Salary'].mean()
```

### drop nan

```
df.dropna()
```

### Print multiple columns

```
df[['Salary', 'Gender']]
```

### Description

```
df.describe()
```

### information

```
df.info()
```