```
In [3]: import pandas as pd
        import numpy as np
        arr=np.array(['p','a','n','d','a','s'])
        a=pd.series(arr)
        print("series from array:")
        print(a)
        AttributeError
                                                   Traceback (most recent call las
        t)
        Cell In[3], line 4
              2 import numpy as np
              3 arr=np.array(['p','a','n','d','a','s'])
        ----> 4 a=pd.series(arr)
              5 print("series from array:")
              6 print(a)
        AttributeError: module 'pandas' has no attribute 'series'
In [4]: import pandas as pd
        import numpy as np
        arr=np.array(['p','a','n','d','a','s'])
        a=pd.Series(arr)
        print("series from array:")
        print(a)
        series from array:
             р
        1
             а
        2
        3
             d
             а
        dtype: object
In [5]: x=pd.Series(4,index=[0,1,2,3])
        print("\nSeries using scalar\n")
        print("\nSeries using scalar\n")
        print(x)
        Series using scalar
        Series using scalar
             4
             4
        1
        2
             4
        dtype: int64
```

```
In [14]:
         a=pd.Series(data=[1,2,3,4])
         print("\n a Series:
          a Series:
               1
         1
              2
         2
              3
              4
         dtype: int64
                                                     Traceback (most recent call las
         NameError
         t)
         Cell In[14], line 5
                1 a=pd.Series(data=[1,2,3,4])
                2 print("\n a Series:\n",a)
         ---> 5 D,D
         NameError: name 'D' is not defined
 In [6]: | x=pd.Series([1,2,3],index=['a','d','c'])
         print("\nSeries through index:")
         print(x)
         Series through index:
              1
              2
              3
         dtype: int64
 In [8]: print("\nIndex: \n",a.index)
         print("\nValues: \n",a.values)
         print("\nShape: \n",a.shape)
         print("\nDimension: \n",a.ndim)
         print("\nSize: \n",a.size)
         Index:
          RangeIndex(start=0, stop=4, step=1)
         Values:
          [1 2 3 4]
         Shape:
          (4,)
         Dimension:
          1
         Size:
          4
```

```
In [9]:
        print("\nAdding new column:\n")
        result['Age']=pd.Series([35,24,40,38])
        print(result)
        Adding new column:
        NameError
                                                   Traceback (most recent call las
        Cell In[9], line 2
              1 print("\nAdding new column:\n")
        ----> 2 result['Age']=pd.Series([35,24,40,38])
              3 print(result)
        NameError: name 'result' is not defined
In [1]: emp=pd.Series(['Parker','John','Smith','William'])
        id=pd.Series([102,107,109,114])
        frame={'Emp':emp,'ID':id}
        result=pd.DataFrame(frame)
        print("\nSeries to Data frame\n")
        print(result)
        print("\nExtracting one column:\n")
        print(result['Emp'])
        print("\nExtracting the third row:\n")
        print(result.loc[2])
        print("\nAdding new column:\n")
        result['Age']=pd.Series([35,24,40,38])
        print(result)
                                                   Traceback (most recent call las
        NameError
        t)
        Cell In[1], line 1
        ----> 1 emp=pd.Series(['Parker','John','Smith','William'])
              2 id=pd.Series([102,107,109,114])
              3 frame={'Emp':emp,'ID':id}
        NameError: name 'pd' is not defined
```

```
emp=pd.Series(['Parker','John','Smith','William'])
In [10]:
         id=pd.Series([102,107,109,114])
         frame={'Emp':emp,'ID':id}
         result=pd.DataFrame(frame)
         print("\nSeries to Data frame\n")
         print(result)
         print("\nExtracting one column:\n")
         print(result['Emp'])
         print("\nExtracting the third row:\n")
         print(result.loc[2])
         Series to Data frame
                 Emp
                      ID
             Parker 102
         0
               John 107
         1
              Smith 109
         2
         3 William 114
         Extracting one column:
         0
               Parker
         1
                 John
         2
                Smith
         3
              William
         Name: Emp, dtype: object
         Extracting the third row:
                ٠ ٠ ـ ـ ـ
In [13]: | arr={'x':0,'y':1,'z':2.}
         b=pd.Series(arr)
         print("\n\n Series from dictionary:\n")
         print(b)
          Series from dictionary:
              0.0
         Х
```

```
x 0.0
y 1.0
z 2.0
dtype: float64
```

```
In [25]:
         mport pandas as pd
         a=pd.dataframe([101,94,91,98,94,96],[102,94,98,97,99,96],[103,90,98,96,94,91
         print(a.arr(['min','max']))
         a[result]=[pass,pass,pass,fail]
         print[a.drop(103)]
         a[['sai']]
         print(a[,name])
         a=np.dataframe([1101, 'Dharun', 'EEE'], [1102, 'Suriya', 'ECE'], [1103, 'Vetri', 'C
         b=pd.dataframe([101,95,93],[102,98,99],[103,96,97])
         columns=['rollno','m1','m2']
         c=pd.merge(a,b='rollno')
         print(c)
         e.to_exl('work data.xlsx')
           Cell In[25], line 4
             a[result]=[pass,pass,pass,fail]
         SyntaxError: invalid syntax
In [20]:
         import matplotlib.pyplot as plt
         x=np.array([1,2,3])
         y=np.array([5,4,3])
         plt.plot=(x)
         plt.plot=(y)
         plt.show()
In [21]: | import matplotlib.pyplot as plt
         x=np.array([1,2,3])
         y=np.array([5,4,3])
         import datetime as d
 In [1]:
         r=d.datetime.now()
         print(r)
         2024-08-21 10:36:42.213893
In [2]:
         import datetime as d
         r=d.datetime.today()
         print(r)
         2024-08-21 10:37:01.644634
 In [8]:
           import datetime as d
         r=d.datetime.now()
         tomo=r+d.timedelta(days=1)
         print(tomo)
         2024-08-22 10:44:22.325396
```

```
In [6]:
           import datetime as d
         r=d.datetime.now()
         tomo=r+d.timedelta(days=2)
         print(tomo)
         2024-08-23 10:41:00.756494
 In [7]:
           import datetime as d
         r=d.datetime.now()
         tomo=r-d.timedelta(days=2)
         print(tomo)
         2024-08-19 10:41:22.796116
In [10]:
         import datetime as d
         r1=d.datetime(2020,8,8,23,10,25,404040)
         print(r1)
         2020-08-08 23:10:25.404040
In [11]:
           import datetime as d
         r2=d.datetime(2024,8,8,10,5,26,5485)
         print(r2)
         2024-08-08 10:05:26.005485
In [13]:
           import datetime as d
         r2=d.datetime(2024,8,8,10,5,26,548500)
         print(r2)
         2024-08-08 10:05:26.548500
In [16]:
           import datetime as d
         r2=d.datetime(2023,7,16,5,30,26,975485)
         print(r2)
         2023-07-16 05:30:26.975485
In [17]: print(r2.replace(day=15))
         2023-07-15 05:30:26.975485
In [18]: |print(r2.replace(month=4))
         2023-04-16 05:30:26.975485
In [19]: |print(r2.replace(year=2024))
         2024-07-16 05:30:26.975485
In [20]: |print(r2.replace(year=2024,month=5,day=30))
         2024-05-30 05:30:26.975485
```

```
In [26]:
         from datetime import date
         print(date(2023,7,16))
         2023-07-16
In [28]:
         from datetime import date
         print(date(2023,7,16).ctime())
         Sun Jul 16 00:00:00 2023
In [29]: print(r.strftime("%Y"))
         2024
In [30]: print(r.strftime("%y"))
         24
In [32]: print(r.strftime("%m"))
         08
In [35]: print(r.strftime("%b"))
         Aug
In [36]: print(r.strftime("%B"))
         August
In [37]: print(r.strftime("%j"))
         234
In [39]: print(r2.strftime("%D"))
         07/16/23
In [40]: |print(r2.strftime("%j"))
         197
In [41]: print(r2.strftime("%d"))
         16
In [43]:
         print(r2.strftime("%a"))
         Sun
In [44]: print(r2.strftime("%A"))
         Sunday
```

```
In [45]: print(r2.strftime("%H"))
         05
In [46]: print(r2.strftime("%h"))
         Jul
In [48]: print(r2.strftime("%S"))
         26
In [49]: print(r2.strftime("%F"))
         2023-07-16
In [50]: print(r2.strftime("%p"))
In [51]: print(r2.strftime("%x"))
         07/16/23
In [52]: print(r2.strftime("%f"))
         975485
In [53]: print(r2.strftime("%X"))
         05:30:26
In [ ]:
```