In [1]:
```
import pandas as pd

array=[1,3,5,7,9,11]

series_obj = pd.Series(array)

arr = series_obj.values

arr
```

Out[1]:
```
array([ 1,  3,  5,  7,  9, 11], dtype=int64)
```

In [2]:
```
reshaped_arr = arr.reshape((3, 2))

reshaped_arr
```

Out[2]:
```
array([[ 1,  3],
       [ 5,  7],
       [ 9, 11]], dtype=int64)
```

In [3]:
```
import pandas as pd

array = ["Anjali","Rupa","Priya","Ananya","Kyvalya","Sita"]

series_obj = pd.Series(array)

print("Given Series:\n", series_obj)

arr = series_obj.values

arr
```

```
Given Series:
 0     Anjali
1       Rupa
2      Priya
3     Ananya
4    Kyvalya
5       Sita
dtype: object
```

Out[3]:
```
array(['Anjali', 'Rupa', 'Priya', 'Ananya', 'Kyvalya', 'Sita'],
      dtype=object)
```

In [4]:
```
reshaped_arr = arr.reshape((2, 3))

print("After Reshaping: \n", reshaped_arr)
```

```
After Reshaping:
 [['Anjali' 'Rupa' 'Priya']
 ['Ananya' 'Kyvalya' 'Sita']]
```

In [5]:
```
import pandas as pd

df = pd.DataFrame({'A': ['John', 'Boby', 'Mina'],
'B': ['Masters', 'Graduate', 'Graduate'],
'C': [27, 23, 21]})

df
```

Out[5]:

	A	B	C
0	John	Masters	27
1	Boby	Graduate	23
2	Mina	Graduate	21

In [6]:
```
df.pivot('A', 'B', 'C')
```

Out[6]:

B	Graduate	Masters
A		
Boby	23.0	NaN
John	NaN	27.0
Mina	21.0	NaN

In [7]:
```
df.pivot(index ='A', columns ='B', values =['C', 'A'])
```

Out[7]:

	C		A	
B	Graduate	Masters	Graduate	Masters
A				
Boby	23	NaN	Boby	NaN
John	NaN	27	NaN	John
Mina	21	NaN	Mina	NaN

In [8]:

```
import pandas as pd

df = pd.DataFrame({'Name': ['John', 'Sammy', 'Stephan', 'Joe', 'Emily', 'Tom'],
'Gender': ['Male', 'Female', 'Male',
'Female', 'Female', 'Male'],
'Age': [45, 6, 4, 36, 12, 43]})

print("Dataset")

print(df)

print("-"*40)

def age_bucket(age):
    if age <= 18:
        return "<18"
    else:
        return ">18"
df['Age Group'] = df['Age'].apply(age_bucket)

gender = pd.DataFrame(df.Gender.value_counts(normalize=True)*100).reset_index()

gender.columns = ['Gender', '%Gender']

df = pd.merge(left=df, right=gender, how='inner', on=['Gender'])

table = pd.pivot_table(df, index=['Gender', '%Gender', 'Age Group'],

                       values=['Name'], aggfunc={'Name': 'count',})
```

```
print("Table")

print(table)
```

```
Dataset
      Name  Gender  Age
0     John    Male   45
1    Sammy  Female    6
2  Stephan    Male    4
3      Joe  Female   36
4    Emily  Female   12
5      Tom    Male   43
---------------------------------------
Table
                         Name
Gender %Gender Age Group
Female 50.0    <18           2
               >18           1
Male   50.0    <18           1
               >18           2
```

In [ ]: