

1. Create a pandas DataFrame named **df** using below data:

```
d = {  
    "cities": pd.Series(['Pretoria', 'Port Elizabeth', 'Johannesburg', 'Bloemfontein', 'Durban'],  
index=[0,1,2,3,4]),  
    "popu_in_th": pd.Series([1.7, 1.0, 2.0, 3.2], index=[0,1,2,3]),  
    "Nut_producer": pd.Series([10, 11, 7, 15 ], index=[0,1,2,3])  
}
```
2. On the created dataframe df, perform following
 - a. To get a series having city information
 - b. To retrieve from df, only rows having popu_in_th is between 1.5 and 2.5 (Hint: Use two conditions connected by |)
 - c. To get a row having integer index [2]
 - d. To display first two rows of dataframe
 - e. To get list of names of columns in dataframe.
3. Create a pandas Series **S1** containing 10 integers given below as [2, 4, 6, 8, 10, 12, 14, 16, 18, 20] having indices from 'a' through 'j' in order.
4. On the pandas Series **S1**, perform following
 - a. To get value of series at index 'd'.
 - b. To add 15 to all values in series.
 - c. To get subset of series which contain values 6, 12 and 18, which are divisible by 3.
 - d. To create another series which contains square of the series values.