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Assignment 1

Questions:

- Task - 1 Create a pandas dataframe (DataFrame name as 'df') (10 observation and 5 features)
- Task- 2 Check the info of 'df'
- Task 3- Check the descriptive statistics of 'df'
- Task 4- check the 4th index observation with 'loc' slicing operator.
- Task 5 - Check the null values in your 'df'

Answers:

Task-1

```
import pandas as pd
df= pd.read_csv('/BenderlyZwick.csv')
df=pd.DataFrame(df)
df1=df.head(10)
df1
```

| | Unnamed: 0 | returns | growth | inflation | growth2 | inflation2 |
|---|------------|---------|--------|-----------|---------|------------|
| 0 | 1 | NaN | NaN | NaN | 3.9 | 2.2 |
| 1 | 2 | NaN | NaN | NaN | 4.0 | 2.1 |
| 2 | 3 | 53.0 | 6.7 | -0.4 | -1.3 | 0.6 |
| 3 | 4 | 31.2 | 2.1 | 0.4 | 5.6 | 1.3 |
| 4 | 5 | 3.7 | 1.8 | 2.9 | 2.1 | 1.9 |
| 5 | 6 | -13.8 | -0.4 | 3.0 | 1.7 | 3.2 |
| 6 | 7 | 41.7 | 6.0 | 1.7 | -0.8 | 1.8 |
| 7 | 8 | 10.5 | 2.1 | 1.5 | 5.8 | 2.2 |
| 8 | 9 | -1.3 | 2.6 | 1.8 | 2.2 | 1.9 |
| 9 | 10 | 26.1 | 5.8 | 0.8 | 2.6 | 1.2 |

Task-2

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10 entries, 0 to 9
Data columns (total 6 columns):
#   Column      Non-Null Count  Dtype
---  -
0   Unnamed: 0   10 non-null    int64
1   returns      8 non-null     float64
2   growth       8 non-null     float64
3   inflation    8 non-null     float64
4   growth2      10 non-null    float64
5   inflation2   10 non-null    float64
dtypes: float64(5), int64(1)
memory usage: 608.0 bytes
```

Task-3

df.describe()

| | Unnamed: 0 | returns | growth | inflation | growth2 | inflation2 |
|-------|------------|------------|-----------|-----------|----------|------------|
| count | 10.00000 | 8.000000 | 8.000000 | 8.000000 | 10.00000 | 10.00000 |
| mean | 5.50000 | 18.887500 | 3.337500 | 1.462500 | 2.58000 | 1.84000 |
| std | 3.02765 | 22.880774 | 2.518468 | 1.173441 | 2.37758 | 0.70111 |
| min | 1.00000 | -13.800000 | -0.400000 | -0.400000 | -1.30000 | 0.60000 |
| 25% | 3.25000 | 2.450000 | 2.025000 | 0.700000 | 1.80000 | 1.42500 |
| 50% | 5.50000 | 18.300000 | 2.350000 | 1.600000 | 2.40000 | 1.90000 |
| 75% | 7.75000 | 33.825000 | 5.850000 | 2.075000 | 3.97500 | 2.17500 |
| max | 10.00000 | 53.000000 | 6.700000 | 3.000000 | 5.80000 | 3.20000 |

Task-4

df.loc[4]

| | |
|-------------------------|-----|
| Unnamed: 0 | 5.0 |
| returns | 3.7 |
| growth | 1.8 |
| inflation | 2.9 |
| growth2 | 2.1 |
| inflation2 | 1.9 |
| Name: 4, dtype: float64 | |

Task-5

df.isnull()

| | Unnamed: 0 | returns | growth | inflation | growth2 | inflation2 |
|---|------------|---------|--------|-----------|---------|------------|
| 0 | False | True | True | True | False | False |
| 1 | False | True | True | True | False | False |
| 2 | False | False | False | False | False | False |
| 3 | False | False | False | False | False | False |
| 4 | False | False | False | False | False | False |
| 5 | False | False | False | False | False | False |
| 6 | False | False | False | False | False | False |
| 7 | False | False | False | False | False | False |
| 8 | False | False | False | False | False | False |
| 9 | False | False | False | False | False | False |

df.isnull().sum()

| | |
|--------------|---|
| Unnamed: 0 | 0 |
| returns | 2 |
| growth | 2 |
| inflation | 2 |
| growth2 | 0 |
| inflation2 | 0 |
| dtype: int64 | |