```
In [2]: import pandas as pd
        import numpy as np

        df = pd.DataFrame({
            'Scores1': [10, 21, 32, 43,80,90,25,17,9,10,11,12,13,14,15,16,17,18,19,28],
            'Scores2': [41, 52, 36, 47,86,90,23,15,8,15,13,10,90,98,69,67,89,90,76,23],
            'Scores3': [23, 12, 24, 34,23,16,18,87,89,67,54,34,12,0,85,43,23,39,99,70],
            'Scores4': [18, 15, 29, 30,43,45,46,47,50,89,90,60,80,65,43,32,78,98,0,75],
            'Midterm': [49, 52, 61, 72,90,91,87,90,76,90,90,87,65,64,76,87,90,34,100,32],
            'Final_score': [90, 10, 60, 72,10,19,18,29,90,10,14,17,29,40,70,8,89,70,23,1

        })
```

```
In [3]: df
```

Out[3]:

	Scores1	Scores2	Scores3	Scores4	Midterm	Final_score
0	10	41	23	18	49	90
1	21	52	12	15	52	10
2	32	36	24	29	61	60
3	43	47	34	30	72	72
4	80	86	23	43	90	10
5	90	90	16	45	91	19
6	25	23	18	46	87	18
7	17	15	87	47	90	29
8	9	8	89	50	76	90
9	10	15	67	89	90	10
10	11	13	54	90	90	14
11	12	10	34	60	87	17
12	13	90	12	80	65	29
13	14	98	0	65	64	40
14	15	69	85	43	76	70
15	16	67	43	32	87	8
16	17	89	23	78	90	89
17	18	90	39	98	34	70
18	19	76	99	0	100	23
19	28	23	70	75	32	12

In [13]:
```python
df.columns.values.tolist() #names of columns
```

Out[13]: ['Scores1',
　　　　　 'Scores2',
　　　　　 'Scores3',
　　　　　 'Scores4',
　　　　　 'Midterm',
　　　　　 'Final_score',
　　　　　 'NewCol']

In [5]:
```python
df.shape #number of rows and columns
```

Out[5]: (20, 6)

In [6]:
```python
df.head(3) #head of list
```

Out[6]:

	Scores1	Scores2	Scores3	Scores4	Midterm	Final_score
0	10	41	23	18	49	90
1	21	52	12	15	52	10
2	32	36	24	29	61	60

In [7]:
```python
df.tail(3)
```

Out[7]:

	Scores1	Scores2	Scores3	Scores4	Midterm	Final_score
17	18	90	39	98	34	70
18	19	76	99	0	100	23
19	28	23	70	75	32	12

In [8]:
```python
df.dtypes #each column type
```

Out[8]: Scores1   int64
　　　　 Scores2   int64
　　　　 Scores3   int64
　　　　 Scores4   int64
　　　　 Midterm   int64
　　　　 Final_score   int64
　　　　 dtype: object

In [9]:
```python
df.loc[:, 'NewCol'] = 0 #added new column
```

In [10]: `df`

Out[10]:

	Scores1	Scores2	Scores3	Scores4	Midterm	Final_score	NewCol
0	10	41	23	18	49	90	0
1	21	52	12	15	52	10	0
2	32	36	24	29	61	60	0
3	43	47	34	30	72	72	0
4	80	86	23	43	90	10	0
5	90	90	16	45	91	19	0
6	25	23	18	46	87	18	0
7	17	15	87	47	90	29	0
8	9	8	89	50	76	90	0
9	10	15	67	89	90	10	0
10	11	13	54	90	90	14	0
11	12	10	34	60	87	17	0
12	13	90	12	80	65	29	0
13	14	98	0	65	64	40	0
14	15	69	85	43	76	70	0
15	16	67	43	32	87	8	0
16	17	89	23	78	90	89	0
17	18	90	39	98	34	70	0
18	19	76	99	0	100	23	0
19	28	23	70	75	32	12	0

In [11]: `df.drop(columns=['NewCol']) #column dropped here`

Out[11]:

	Scores1	Scores2	Scores3	Scores4	Midterm	Final_score
0	10	41	23	18	49	90
1	21	52	12	15	52	10
2	32	36	24	29	61	60
3	43	47	34	30	72	72
4	80	86	23	43	90	10
5	90	90	16	45	91	19
6	25	23	18	46	87	18
7	17	15	87	47	90	29
8	9	8	89	50	76	90
9	10	15	67	89	90	10
10	11	13	54	90	90	14
11	12	10	34	60	87	17
12	13	90	12	80	65	29
13	14	98	0	65	64	40
14	15	69	85	43	76	70
15	16	67	43	32	87	8
16	17	89	23	78	90	89
17	18	90	39	98	34	70
18	19	76	99	0	100	23
19	28	23	70	75	32	12

In [12]: `list(df.index) #row names here`

Out[12]: `[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19]`

In [ ]: