

Assignments:

1. Write a Pandas program to create and display a one-dimensional array-like object containing an array of data using Pandas module.
2. Write a Pandas program to convert a Panda module Series to Python list and it's type.
3. Write a Pandas program to compare the elements of the two Pandas Series.
4. Write a Pandas program to change the data type of given a column or a Series.
5. Write a Pandas program to get the powers of an array values element-wise.

Note: First array elements raised to powers from second array

Sample data: {'X':[78,85,96,80,86], 'Y':[84,94,89,83,86], 'Z':[86,97,96,72,83]}

Expected Output:

```
X Y Z
0 78 84 86
1 85 94 97
2 96 89 96
3 80 83 72
4 86 86 83
```

6. Write a Pandas program to get the first 3 rows of a given DataFrame.

Sample Python dictionary data and list labels:

```
exam_data = {'name': ['Anastasia', 'Dima', 'Katherine', 'James', 'Emily', 'Michael',
'Matthew', 'Laura', 'Kevin', 'Jonas'],
'score': [12.5, 9, 16.5, np.nan, 9, 20, 14.5, np.nan, 8, 19],
'attempts': [1, 3, 2, 3, 2, 3, 1, 1, 2, 1],
'qualify': ['yes', 'no', 'yes', 'no', 'no', 'yes', 'yes', 'no', 'no', 'yes']}
labels = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j']
```

Expected Output:

First three rows of the data frame:

attempts name qualify score

a 1 Anastasia yes 12.5

b 3 Dima no 9.0

c 2 Katherine yes 16.5

Test Data:

0	Streat1	S001	V	Alberto	Franco	15/05/2002	35
1	Streat2	S002	V	Gino	Mcneill	17/05/2002	32
2	Streat3	S003	VI	Ryan	Parkes	16/02/1999	33
3	Streat4	S004	VI	Eesha	Hinton	25/09/1998	30
4	Streat5	S005	V	Gino	Mcneill	11/05/2002	31
5	Streat6	S006	VI	David	Parkes	15/09/1997	32

7. Write a Pandas program to display the default index and set a column as an Index in a given dataframe.
8. Write a Pandas program to display the default index and set a column as an Index in a given dataframe and then reset the index
9. Write a Pandas program to create a dataframe indexing by date and time.
10. Write a Pandas program to create a dataframe and set a title or name of the index column.
11. Write a Pandas program to select a specific row of given series/dataframe by integer index.