Introduction to Pandas library in Python

Lab report #07

Fall 2022

CSE-408L Data Analytics lab

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"On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work."

Student Signature: _____

Submitted to:

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Dec 22, 2022

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lab07

December 22, 2022

1 Lab Tasks

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

[2]:
```
covid_df=pd.read_csv('italy-covid-daywise.csv')
```

[3]:
```
covid_df
```

[3]:

	date	new_cases	new_deaths	new_tests
0	2019-12-31	0	0	NaN
1	2020-01-01	0	0	NaN
2	2020-01-02	0	0	NaN
3	2020-01-03	0	0	NaN
4	2020-01-04	0	0	NaN
..	…	…	…	…
243	2020-08-30	1444	1	53541.0
244	2020-08-31	1365	4	42583.0
245	2020-09-01	996	6	54395.0
246	2020-09-02	975	8	NaN
247	2020-09-03	1326	6	NaN

[248 rows x 4 columns]

1.1 Task01

Find the total number of reported cases and deaths related to Covid-19 in Italy.

[4]:
```
total_reported_cases=covid_df['new_cases'].sum()
```

[5]:
```
total_reported_cases
```

[5]: 271515

[6]:
```
total_death_cases=covid_df['new_deaths'].sum()
```

[7]:
```
total_death_cases
```

[7]: 35497

1.2 Task02

Find the overall death rate (ratio of reported deaths to reported cases).

[8]:
```
overall_death_rate=total_reported_cases/total_death_cases
```

[9]:
```
overall_death_rate
```

[9]: 7.648956249823929

1.3 Task03

Find the overall number of tests conducted? A total of 935310 tests were conducted before daily test numbers were reported.

[10]:
```
total_tests_conducted=covid_df['new_tests'].sum()+935310
```

[11]:
```
total_tests_conducted
```

[11]: 5214766.0

1.4 Task04

Find the positive rate i.e. fraction of tests returned a positive result.

[12]:
```
positive_rate=total_reported_cases/total_tests_conducted
```

[13]:
```
positive_rate
```

[13]: 0.05206657403227681

we can also find negative rate as,

[14]:
```
negative_rate=(total_tests_conducted-total_reported_cases)/total_tests_conducted
```

[15]:
```
negative_rate
```

[15]: 0.9479334259677232

[ ]:
```

```