

Name: Savi kumari

Roll no: 2k21/MKIT/36

Subject: Python Programming

Class: BSIT Part 2 , 4th sem

Assignment 3

Task 01: Write down a code which convert following Dictionary to Series:

heading: name, DoB, RollNo, marks

values: 'abc', '2000-01-01', '01', 63

code:

```
import pandas as pd

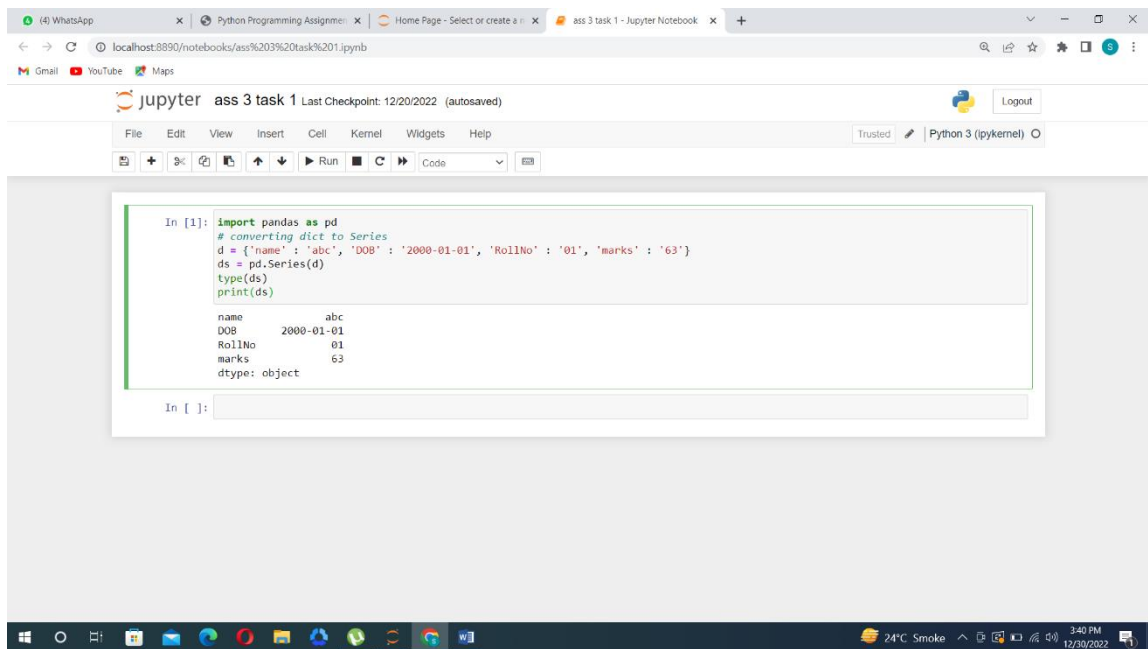
# converting dict to Series

d = {'name' : 'abc', 'DOB' : '2000-01-01', 'RollNo' : '01', 'marks' : '63'}

ds = pd.Series(d)

type(ds)

print(ds)
```

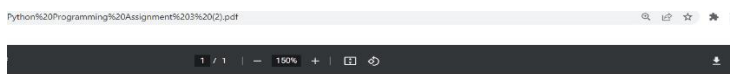


Task 02: Consider Dataframe1 and write following code:

Dataframe1

A: Write a code which display only names of the players, sort by Runs.

B: Write a code which display all columns of DataFrame1, having runs more than 30 and played for more than 30 minutes.



Code:

Create DataFrame1

```
import pandas as pd
data = { 'Player' : ['ABC', 'DEF', 'GEH', 'IJK'],
        'Runs' : [35, 30, 0.2, 56],
        'Balls' : [28, 27, 0.3, 58],
        'Minutes' : [32, 24, 0.6, 65],
        'Dots' : [0.6, 0.3, 0.1, 13]
      }
df = pd.DataFrame(data)
type(df)
df
```

A:

```
new_df= df.sort_values(by=['Runs'])
new_df
```

```
new_df [['Player','Runs']]
```

B: Display DataFrame1

```
df
```

having runs more than 30

```
df = df[df['Runs'] >30]
df
```

played for more than 30 minutes.

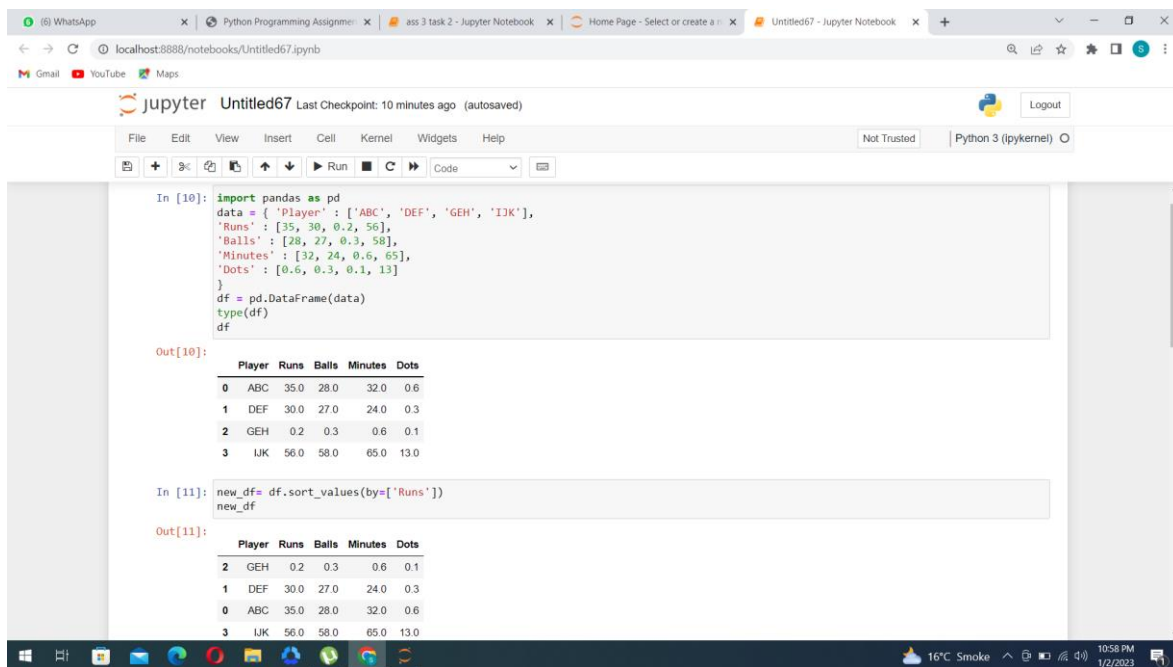
```
df = df[df['Minutes'] > 30]
```

```
df
```

having runs more than 30 and played for more than 30 minutes.

```
df = df[df[['Runs', 'Minutes']] > 30]
```

```
df
```



The screenshot shows a Jupyter Notebook interface with the following content:

```
In [10]: import pandas as pd
data = { 'Player' : ['ABC', 'DEF', 'GEH', 'IJK'],
        'Runs' : [35, 30, 0.2, 56],
        'Balls' : [28, 27, 0.3, 58],
        'Minutes' : [32, 24, 0.6, 65],
        'Dots' : [0.6, 0.3, 0.1, 13]
        }
df = pd.DataFrame(data)
type(df)
df
```

Out[10]:

	Player	Runs	Balls	Minutes	Dots
0	ABC	35.0	28.0	32.0	0.6
1	DEF	30.0	27.0	24.0	0.3
2	GEH	0.2	0.3	0.6	0.1
3	IJK	56.0	58.0	65.0	13.0

```
In [11]: new_df = df.sort_values(by=['Runs'])
new_df
```

Out[11]:

	Player	Runs	Balls	Minutes	Dots
2	GEH	0.2	0.3	0.6	0.1
1	DEF	30.0	27.0	24.0	0.3
0	ABC	35.0	28.0	32.0	0.6
3	IJK	56.0	58.0	65.0	13.0

Browser tabs: (6) WhatsApp, Python Programming Assignme..., ass 3 task 2 - Jupyter Notebook, Home Page - Select or create a n..., Untitled67 - Jupyter Notebook

Address bar: localhost:8888/notebooks/Untitled67.ipynb

Navigation: Gmail, YouTube, Maps

Jupyter interface: Untitled67 Last Checkpoint: 10 minutes ago (autosaved) Logout

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Code cell [11]:

```
Out[11]:
```

	Player	Runs	Balls	Minutes	Dots
2	GEH	0.2	0.3	0.6	0.1
1	DEF	30.0	27.0	24.0	0.3
0	ABC	35.0	28.0	32.0	0.6
3	IJK	56.0	58.0	65.0	13.0

Code cell [12]:

```
In [12]: new_df [['Player', 'Runs']]
```

```
Out[12]:
```

	Player	Runs
2	GEH	0.2
1	DEF	30.0
0	ABC	35.0
3	IJK	56.0

Code cell [13]:

```
In [13]: df
```

```
Out[13]:
```

	Player	Runs	Balls	Minutes	Dots
0	ABC	35.0	28.0	32.0	0.6
1	DEF	30.0	27.0	24.0	0.3
2	GEH	0.2	0.3	0.6	0.1
3	IJK	56.0	58.0	65.0	13.0

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Code cell [14]:

```
In [14]: df = df[df['Runs'] > 30]
```

```
Out[14]:
```

	Player	Runs	Balls	Minutes	Dots
0	ABC	35.0	28.0	32.0	0.6
3	IJK	56.0	58.0	65.0	13.0

Code cell [15]:

```
In [15]: df = df[df['Minutes'] > 30]
```

```
Out[15]:
```

	Player	Runs	Balls	Minutes	Dots
0	ABC	35.0	28.0	32.0	0.6
3	IJK	56.0	58.0	65.0	13.0

Code cell [16]:

```
In [16]: df = df[df[['Runs', 'Minutes']] > 30]
```

```
Out[16]:
```

	Player	Runs	Balls	Minutes	Dots
0	NaN	35.0	NaN	32.0	NaN
3	NaN	56.0	NaN	65.0	NaN

Code cell []:

```
In [ ]:
```

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