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**NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Python for Data Science (course)**


## Course outline

**How does an NPTEL online course work? ()**

**Week 0 ()**

**Week 1 ()**

**Week 2 ()**

**Week 3 ()**

- Reading data (unit? unit=41&lesson=42)
- Pandas Dataframes I (unit? unit=41&lesson=43)
- Pandas Dataframes II (unit? unit=41&lesson=44)
- Pandas Dataframes III (unit? unit=41&lesson=45)

# Week 3: Assignment 3

The due date for submitting this assignment has passed.

**Due on 2023-02-15, 23:59 IST.**

As per our records you have not submitted this assignment.

1) Which of the following is the correct approach to fill missing values in case of categorical variable?

**1 point**

- ☐ Mean
- ☐ Median
- ☐ Mode
- ☐ None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

*Mode*

Assume a pandas dataframe df\_cars which when printed is as shown below. Based on this information, answer questions 2 and 3.

	Car name	Type	Brand	Price (in lakhs)
0	A2	Sedan	ASP	15
1	C3	SUV	TRE	20
2	D2	Hatchback	ASP	14
3	A3	Sedan	TOY	13
4	C6	MUV	TOY	18

Control structures & Functions (unit? unit=41&lesson=46)

Exploratory data analysis (unit? unit=41&lesson=47)

Data Visualization- Part I (unit? unit=41&lesson=48)

Data Visualization- Part II (unit? unit=41&lesson=49)

Dealing with missing data (unit? unit=41&lesson=50)

Datasets (unit? unit=41&lesson=51)

Week 3: Lecture slides (unit? unit=41&lesson=52)

Week 3 - FAQs (unit? unit=41&lesson=53)

Practice: Week 3: Practice Assignment 3 (assessment? name=96)

Quiz: Week 3: Assignment 3 (assessment? name=104)

Week 3 Feedback Form : Python for Data Science (unit? unit=41&lesson=100)

**Week 4 ()**

2) Of the following set of statements, which of them can be used to extract the column **Type** as a separate dataframe? **1 point**

- ☐ df cars[['Type']]
- ☐ df cars.iloc[:, 1]
- ☐ df cars.loc[:, ['Type']]
- ☐ None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:

`df cars[['Type']]`

`df cars.loc[:, ['Type']]`

3) The method df\_cars.describe() will give description of which of the following column? **1 point**

- ☐ Car name
- ☐ Brand
- ☐ Price (in lakhs)
- ☐ All of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:

*Price (in lakhs)*

4) Which pandas function is used to stack the dataframes vertically? **1 point**

- ☐ pd.merge()
- ☐ pd.concat()
- ☐ join()
- ☐ None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:

`pd.concat()`

5) Which of the following are libraries in Python? **1 point**

- ☐ Pandas
- ☐ Matplotlib
- ☐ NumPy
- ☐ All of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:

*All of the above*

Read the comma-separated values file hotel bookings.csv

(<https://drive.google.com/file/d/1mlmTyULec38KJGkYACQMhuPDOc-vIJXk/view?usp=sharing>)

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as a dataframe data hotel and answer questions 6 - 8. Please refer to Hotel Bookings Data Description.pdf  
(<https://drive.google.com/file/d/1kIJmX6m5qa1qaNu4SQRCwBWxWhVTUCcu/view?usp=sharing>) for data and variable description.

6) Choose the appropriate command(s) to filter those booking details whose **reservation-status** are a **No-show**?

**1 point**

☐

```
data_hotel_ns = data_hotel.loc[data_hotel.reservation_status = 'No-Show']
```

☐

```
data_hotel_ns = data_hotel[data_hotel.reservation_status == 'No-Show']
```

☐

```
data_hotel_ns = data_hotel.reservation_status.loc[data_hotel.isin(['No-Show'])]
```

☐

```
data_hotel_ns = data_hotel.loc[data_hotel.reservation_status.isin(['No-Show'])]
```

No, the answer is incorrect.

Score: 0

Accepted Answers:

```
data_hotel_ns = data_hotel[data_hotel.reservation_status == 'No-Show']
```

```
data_hotel_ns = data_hotel.loc[data_hotel.reservation_status.isin(['No-Show'])]
```

7) From the same data, find how many bookings were **not canceled** in the year **2017**?

**1 point**

☐ 9064

☐ 6231

☐ 9046

☐ None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

9064

8) From the total bookings that were made in 2017 and not canceled, which month had the highest number of repeated guests?

**1 point**

☐ July

☐ February

☐ January

☐ None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

*July*

9) What will be the output of the following code?

**1 point**

```
import numpy as np
B = [True, 2, 3.0, np.nan, "False"]
[type(i) for i in B]
```

- ☐ [bool, int, float, float, str]
- ☐ [str, int, float, float, str]
- ☐ [bool, int, float, int, str]
- ☐ [bool, int, int, float, str]

No, the answer is incorrect.

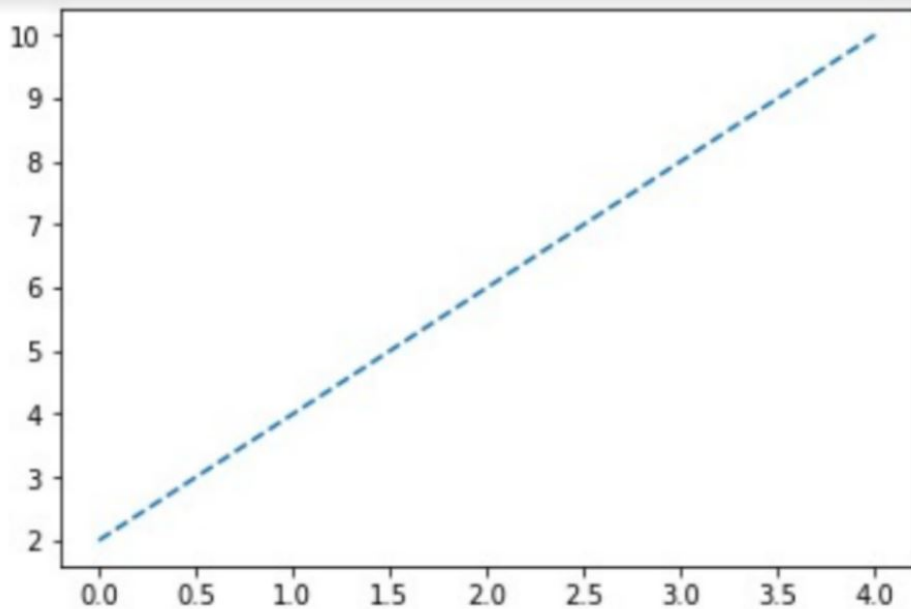
Score: 0

Accepted Answers:

*[bool, int, float, float, str]*

10) Which command is used to generate the plot shown below?

**1 point**



- ☐ plt.plot(x, linestyle = "-")
- ☐ plt.plot(x, linestyle = "--")
- ☐ plt.plot(x, linestyle = "-.")
- ☐ plt.plot(x, linestyle = ":")

No, the answer is incorrect.

Score: 0

Accepted Answers:

*plt.plot(x, linestyle = "--")*

