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Course outline

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How does an NPTEL online course work? ()

Week 0 ()

Week 1 ()

Week 2 ()

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Week 3 : Assignment 3

Assignment not submitted **Due date: 2025-02-12, 23:59 IST.**

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

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

- 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)
- 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

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

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

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

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

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

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

Read the 'flavors_of_cocoa.csv' file as a dataframe 'df_cocoa' and answer questions 6-9. The description of features/variables is given below:

Variable	Description
ID	Serial no.
Company	Name of a manufacturing company
Bean Origin	Place of origin of cocoa bean
Review Data	Year in which chocolates were rated
Cocoa percent	Percentage of cocoa in chocolate
Company Location	Location of a manufacturing company
Rating	Rating of chocolates

6) Which of the following variable have null values? ***1 point***

- ○ ID

=51)

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

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

Week 3 Feedback Form : Python for Data Science (unit?unit=41&lesson=115)

Practice: Week 3: Practice Assignment 3 (assessment?name=158)

Quiz: Week 3 : Assignment 3 (assessment?name=162)

Week 4 ()

Supporting material for Week 4 ()

Download Videos ()

Books ()

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Problem Solving Session - Jan 2025 ()

- Company
- Review Date
- Rating

7) Which of the following countries have maximum locations of cocoa manufacturing companies? ***1 point***

- U.K.
- U.S.A.
- Canada
- France

8) After checking the data summary, which feature requires a data conversion considering the data values held? ***1 point***

- Rating
- Review date
- Company
- Bean origin

9) What is the maximum rating of chocolates? ***1 point***

- 1.00
- 5.00
- 3.18
- 4.00

10) 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]

11) What does **df.info()** provide? ***1 point***

- Summary of the DataFrame, including the number of non-null entries.
- The first 5 rows of the DataFrame

- ○ The data types of the columns
- ○ The correlation matrix of the DataFrame

12) What will be the output of the following code? ***1 point***

```
import numpy as np
arr = np.array([1, 2, 3, 4, 5])
print(arr[::2])
```

- ○ [1, 2]
- ○ [1, 3, 5]
- ○ [1, 2, 3, 4, 5]
- ○ [5, 4, 3, 2, 1]

You may submit any number of times before the due date. The final submission will be considered for grading.

Submit Answers