

14-11-2024

Training Day – 42

November 14, Thursday

- *Topic:* Exporting Processed Data

- Saved cleaned and processed datasets to CSV and Excel formats.
- Example: Exported a cleaned DataFrame to cleaned_data.xlsx.

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Airline Dataset

Importing Required Modules

1. importing numpy for mathematical operation on arrays and dataframe.
2. importing pandas for reading data and data manipulation.
3. importing matplotlib and seaborn to show the insights and visualization from the dataset.
4. importing warnings for Warning messages that are typically issued in dataframe where it is useful to alert the user of some condition in a program, where that condition (normally) doesn't warrant raising an exception and terminating the program.

import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import warnings
warnings.filterwarnings("ignore")

#sns.set(style = "darkgrid")

Reading Dataset and Checking the NaN Values , Data Types , and Statistical Analysis

1. Since data is in form of excel file we have to use pandas read_excel to load the data.
2. After loading it is important to check the complete information of data as it can indicate many of the hidden information such as null values in a column or a row.
3. Check whether any null values are there or not, if it is present then following can be done,
    1. Filling NaN values with mean, median and mode using fillna() method.
4. Describe data --> which can give statistical analysis

df=pd.read_excel("Data_Train.xlsx")

df.head()

df.shape
```

DATA IN XLSX

Data_Train (3) [Protected View] - Excel													
PROTECTED VIEW Be careful—files from the Internet can contain viruses. Unless you need to edit, it's safer to stay in Protected View. Enable Editing													
A1	Airline												
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Airline	Date of Journey	Source	Destination	Route	Dep_Time	Arrival_Time	Duration	Total_Stops	Additional_Info	Price		
2	IndiGo	24/03/201	Banglore	New Delhi	BLR → DEL	22:20	01:10 22 N	2h 50m	non-stop	No info	3897		
3	Air India	1/05/2019	Kolkata	Banglore	CCU → IXF	05:50	13:15	7h 25m	2 stops	No info	7662		
4	Jet Airway	9/06/2019	Delhi	Cochin	DEL → LKC	09:25	04:25 10 J	19h	2 stops	No info	13882		
5	IndiGo	12/05/201	Kolkata	Banglore	CCU → NA	18:05	23:30	5h 25m	1 stop	No info	6218		
6	IndiGo	01/03/201	Banglore	New Delhi	BLR → NA	16:50	21:35	4h 45m	1 stop	No info	13302		
7	SpiceJet	24/06/201	Kolkata	Banglore	CCU → BL	09:00	11:25	2h 25m	non-stop	No info	3873		
8	Jet Airway	12/03/201	Banglore	New Delhi	BLR → BO	18:55	10:25 13 M	15h 30m	1 stop	In-flight m	11087		
9	Jet Airway	01/03/201	Banglore	New Delhi	BLR → BO	08:00	05:05 02 M	21h 5m	1 stop	No info	22270		
10	Jet Airway	12/03/201	Banglore	New Delhi	BLR → BO	08:55	10:25 13 M	25h 30m	1 stop	In-flight m	11087		
11	Multiple c	27/05/201	Delhi	Cochin	DEL → BO	11:25	19:15	7h 50m	1 stop	No info	8625		
12	Air India	1/06/2019	Delhi	Cochin	DEL → BLF	09:45	23:00	13h 15m	1 stop	No info	8907		
13	IndiGo	18/04/201	Kolkata	Banglore	CCU → BL	20:20	22:55	2h 35m	non-stop	No info	4174		
14	Air India	24/06/201	Chennai	Kolkata	MAA → CC	11:40	13:55	2h 15m	non-stop	No info	4667		
15	Jet Airway	9/05/2019	Kolkata	Banglore	CCU → BC	21:10	09:20 10 M	12h 10m	1 stop	In-flight m	9663		