Dummy Variables

Instructions:

Please share your answers filled inline in the word document. Submit code files wherever applicable.

Please ensure you update all the details:

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Topic: Data Pre-Processing

Problem Statement:

Data is one of the most important assets. It is often common that data is stored in distinct systems with different formats and forms. Non-numeric form of data makes it tricky while developing mathematical equations for prediction models. We have the preprocessing techniques to make the data convert to numeric form. Explore the various techniques to have reliable uniform standard data, you can go through this link:

https://360digitmg.com/mindmap-data-science

1) Prepare the dataset by performing the preprocessing techniques, to have all the features in numeric format.

Index	Animals	Gender	Homly	Types
1	Cat	Male	Yes	A
2	Dog	Male	Yes	B
3	Mouse	Male	Yes	C
4	Mouse	Male	Yes	C
5	Dog	Female	Yes	A
6	Cat	Female	Yes	B
7	Lion	Female	Yes	D
8	Goat	Female	Yes	E
9	Cat	Female	Yes	A
10	Dog	Male	Yes	B

Hints:

```python
import pandas as pd

df = pd.read_csv(r"Animal_category.csv")

mapping = {

    'Animals': {'Cat': 1, 'Dog': 2, 'Mouse': 3, 'Lion': 4, 'Goat': 5},

    'Gender': {'Male': 0, 'Female': 1},

    'Homly': {'Yes': 1, 'No': 0},

    'Types': {'A': 1, 'B': 2, 'C': 3, 'D': 4, 'E': 5}

}

df.replace(mapping, inplace=True)

df.head(30)
```

```
    Index   Animals   Gender   Homly   Types
0       1         1        0       1       1
1       2         2        0       1       2
2       3         3        0       1       3
3       4         3        0       1       3
4       5         2        1       1       1
5       6         1        1       1       2
6       7         4        1       1       4
7       8         5        1       1       5
8       9         1        1       1       1
9      10         2        0       1       2
10     11         2        0       1       2
11     12         4        0       0       4
12     13         4        0       0       4
13     14         4        0       0       4
14     15         1        1       1       1
15     16         4        1       0       4
16     17         4        1       0       4
17     18         1        1       1       1
18     19         5        0       0       5
19     20         5        1       0       5
20     21         5        0       0       5
21     22         5        1       0       5
22     23         4        0       0       4
23     24         4        1       0       4
24     25         4        0       0       4
25     26         4        1       0       4
26     27         2        0       1       2
27     28         4        1       0       4
28     29         1        0       1       1
29     30         4        1       0       4
```