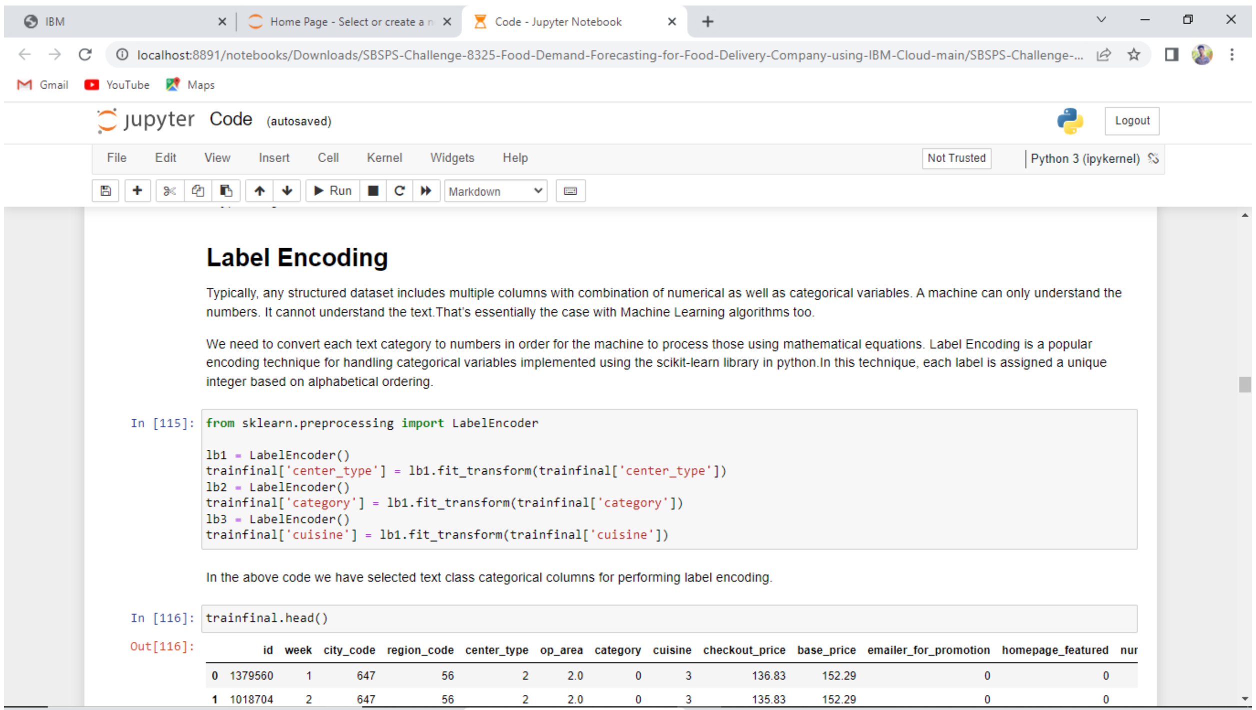
TEAM ID: PNT2022TMID17554

PROJECT NAME: DemandEst - AI powered Food Demand Forecaster Team

Leader



Label Encoding

Typically, any structured dataset includes multiple columns with combination of numerical as well as categorical variables. A machine can only understand the numbers. It cannot understand the text.That's essentially the case with Machine Learning algorithms too.

We need to convert each text category to numbers in order for the machine to process those using mathematical equations. Label Encoding is a popular encoding technique for handling categorical variables implemented using the scikit-learn library in python.In this technique, each label is assigned a unique integer based on alphabetical ordering.

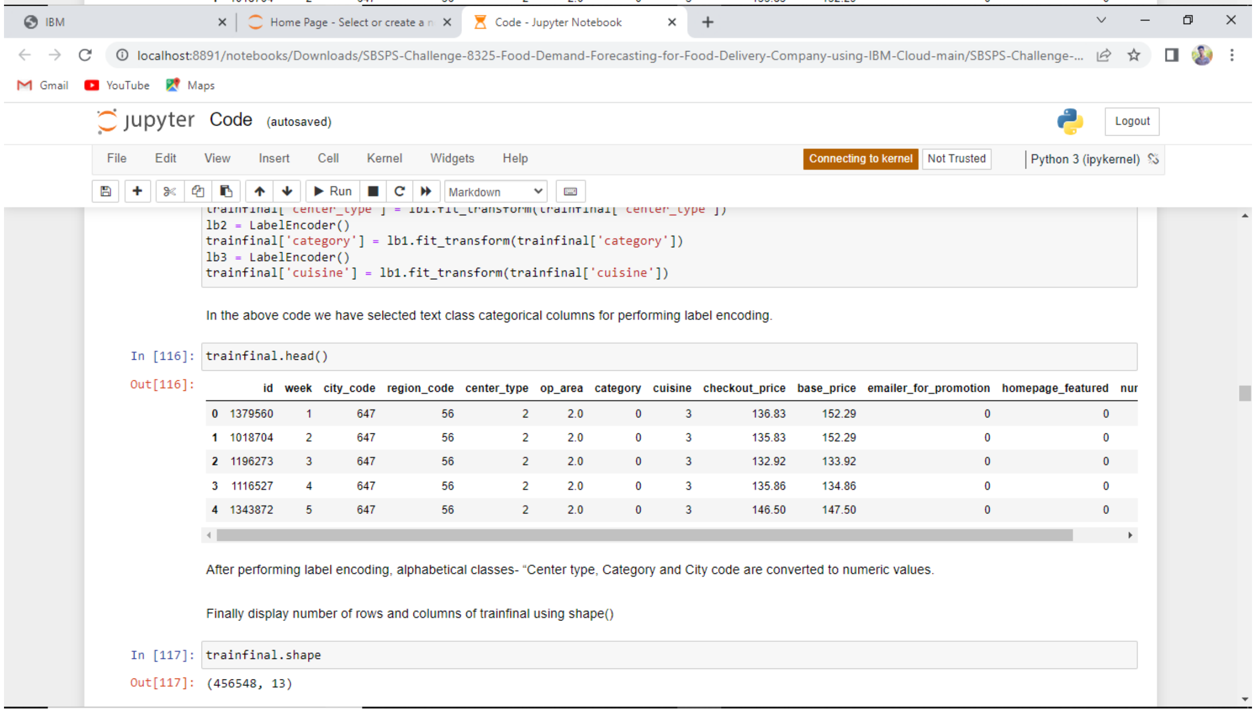
```
In [115]: from sklearn.preprocessing import LabelEncoder

          lb1 = LabelEncoder()
          trainfinal['center_type'] = lb1.fit_transform(trainfinal['center_type'])
          lb2 = LabelEncoder()
          trainfinal['category'] = lb1.fit_transform(trainfinal['category'])
          lb3 = LabelEncoder()
          trainfinal['cuisine'] = lb1.fit_transform(trainfinal['cuisine'])
```

In the above code we have selected text class categorical columns for performing label encoding.

```
In [116]: trainfinal.head()
Out[116]:
```

	id	week	city_code	region_code	center_type	op_area	category	cuisine	checkout_price	base_price	emailer_for_promotion	homepage_featured	nur
0	1379560	1	647	56	2	2.0	0	3	136.83	152.29	0	0	
1	1018704	2	647	56	2	2.0	0	3	135.83	152.29	0	0	



```
          lb2 = LabelEncoder()
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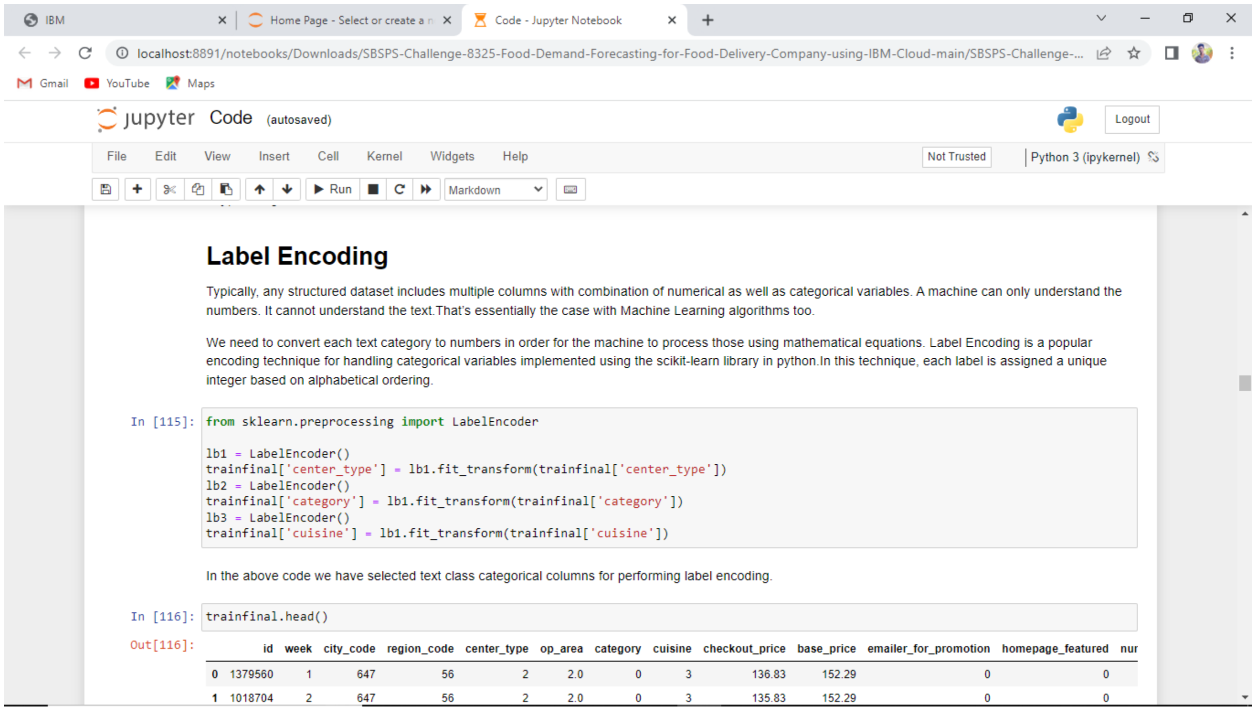
3	1116527	4	647	56	2	2.0	0	3	135.86	134.86	0	0	
4	1343872	5	647	56	2	2.0	0	3	146.50	147.50	0	0	

After performing label encoding, alphabetical classes- “Center type, Category and City code are converted to numeric values.

Finally display number of rows and columns of trainfinal using shape()

```
In [117]: trainfinal.shape
Out[117]: (456548, 13)
```

Team Member 1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jupyter Code (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Markdown

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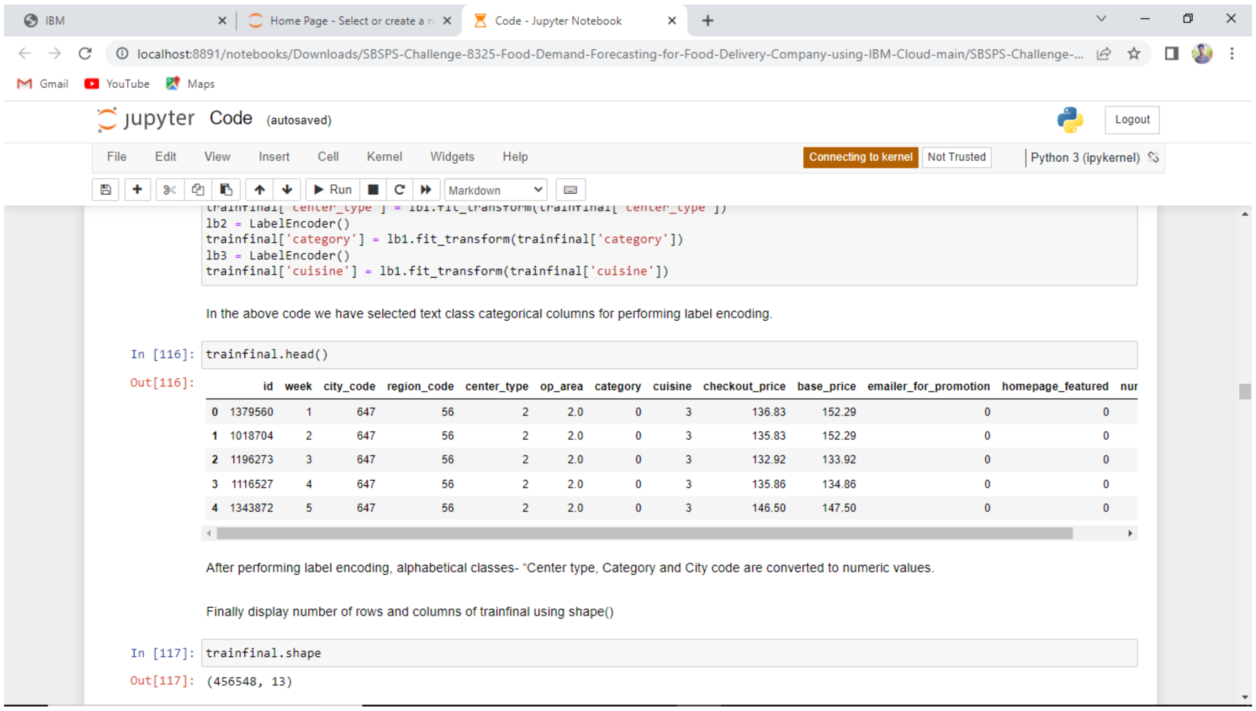
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Gmail
YouTube
Maps
jupyter Code (autosaved)
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File Edit View Insert Cell Kernel Widgets Help
Connecting to kernel
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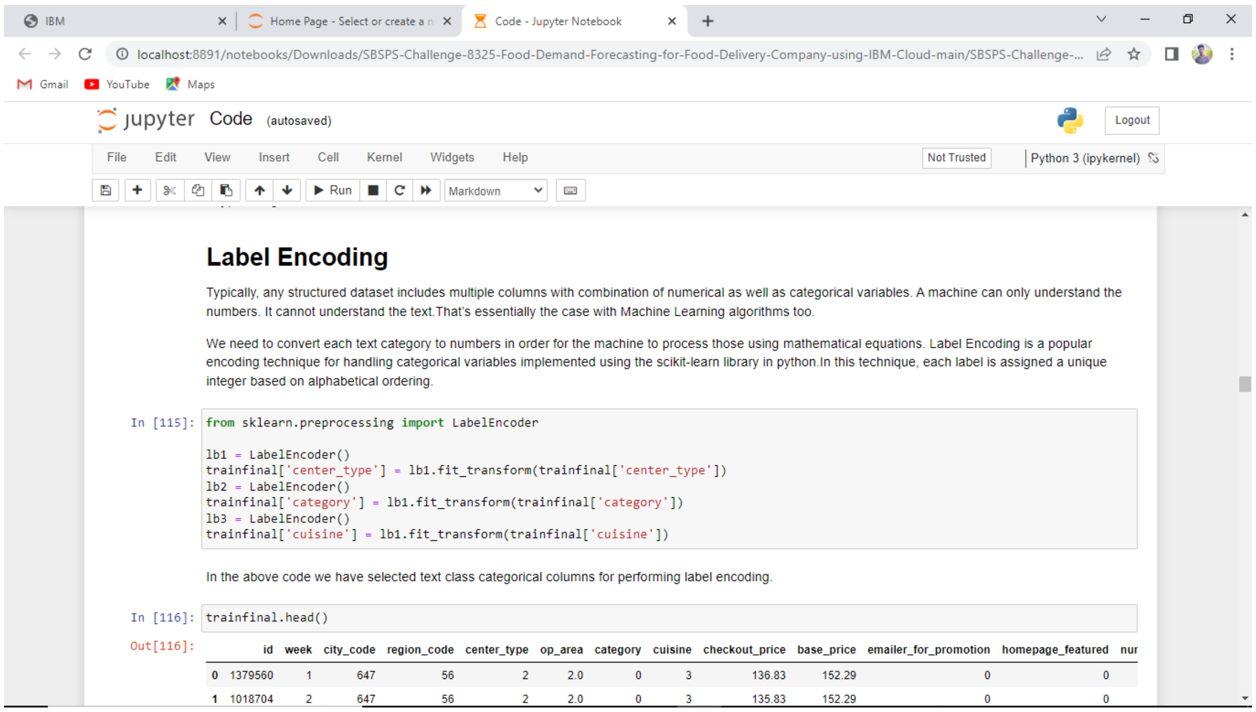
Team Member 2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Code - Jupyter Notebook
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Gmail
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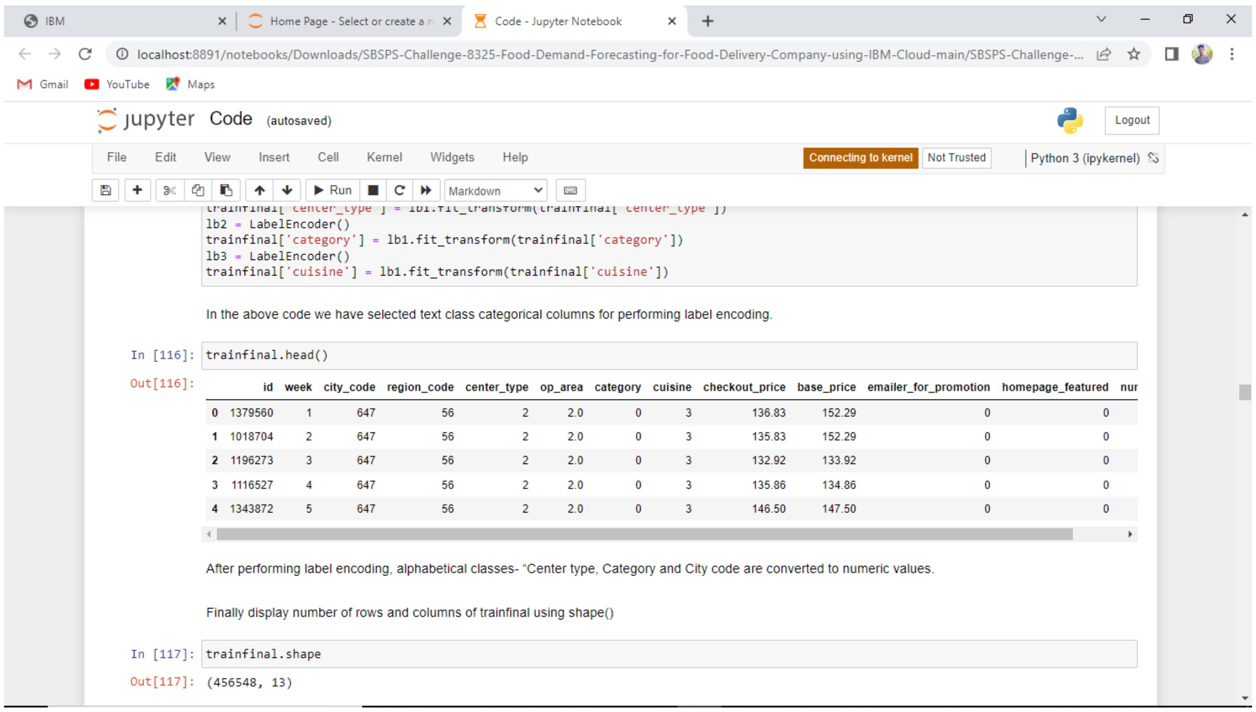
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Gmail
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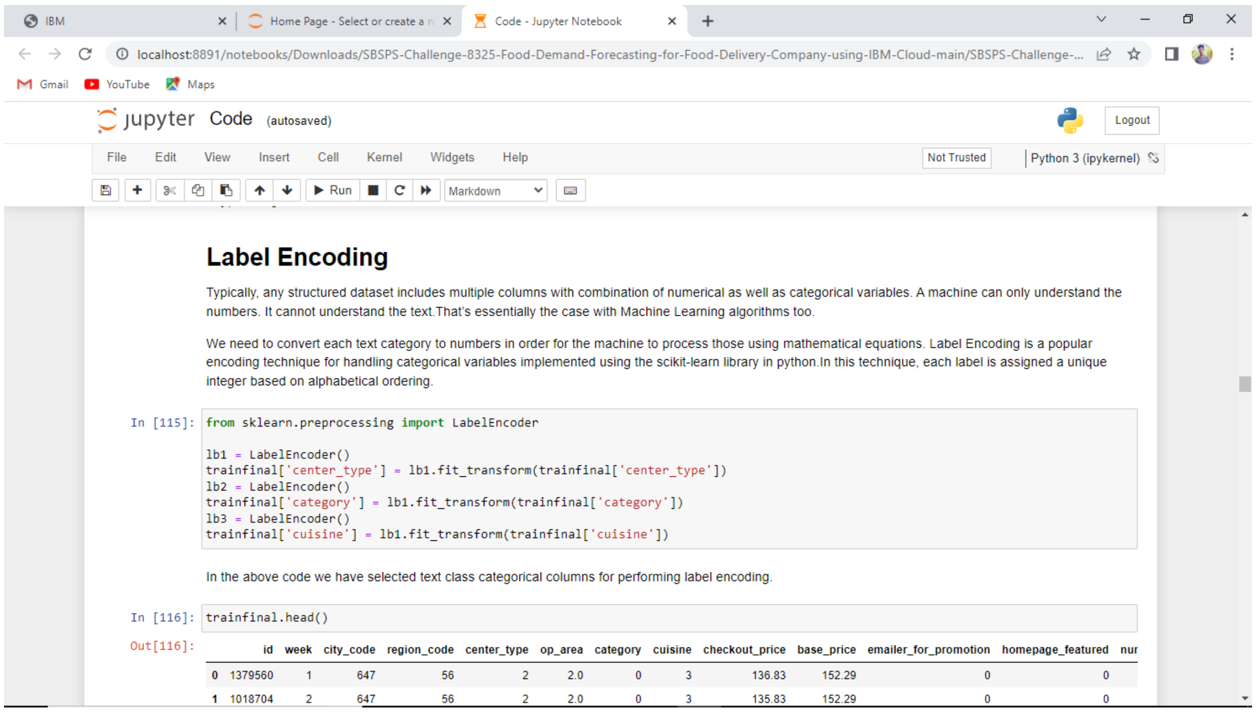

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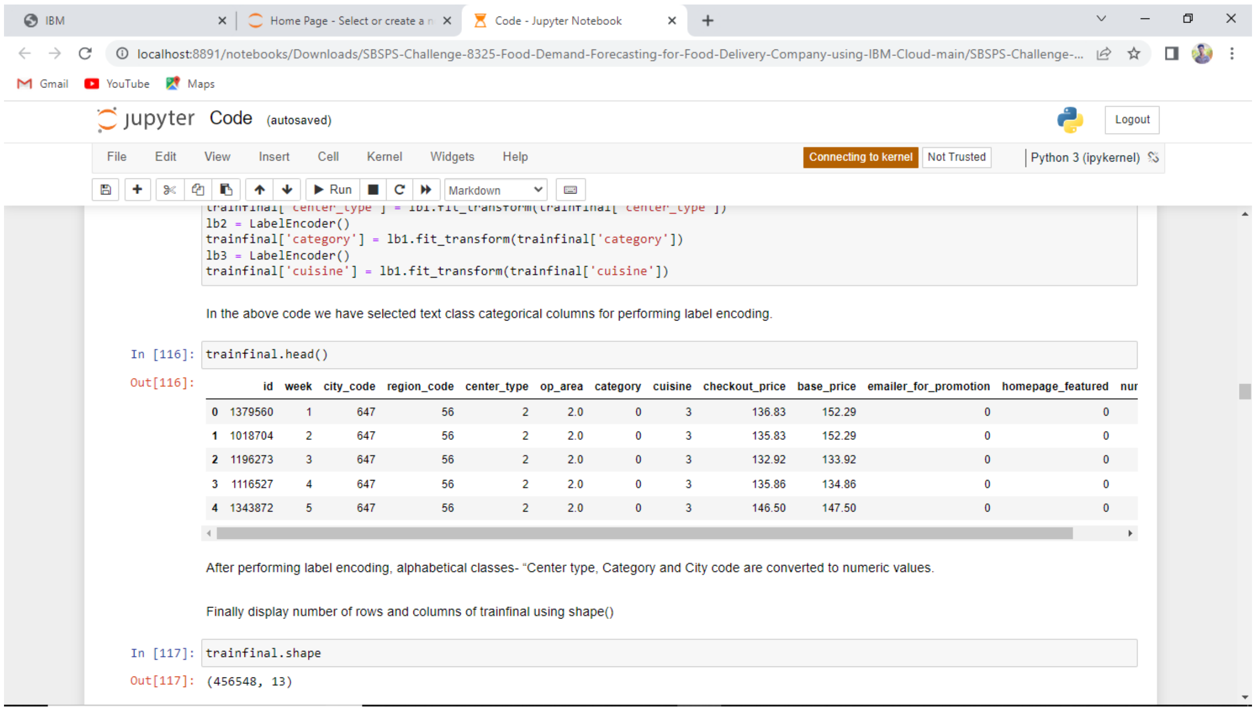

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