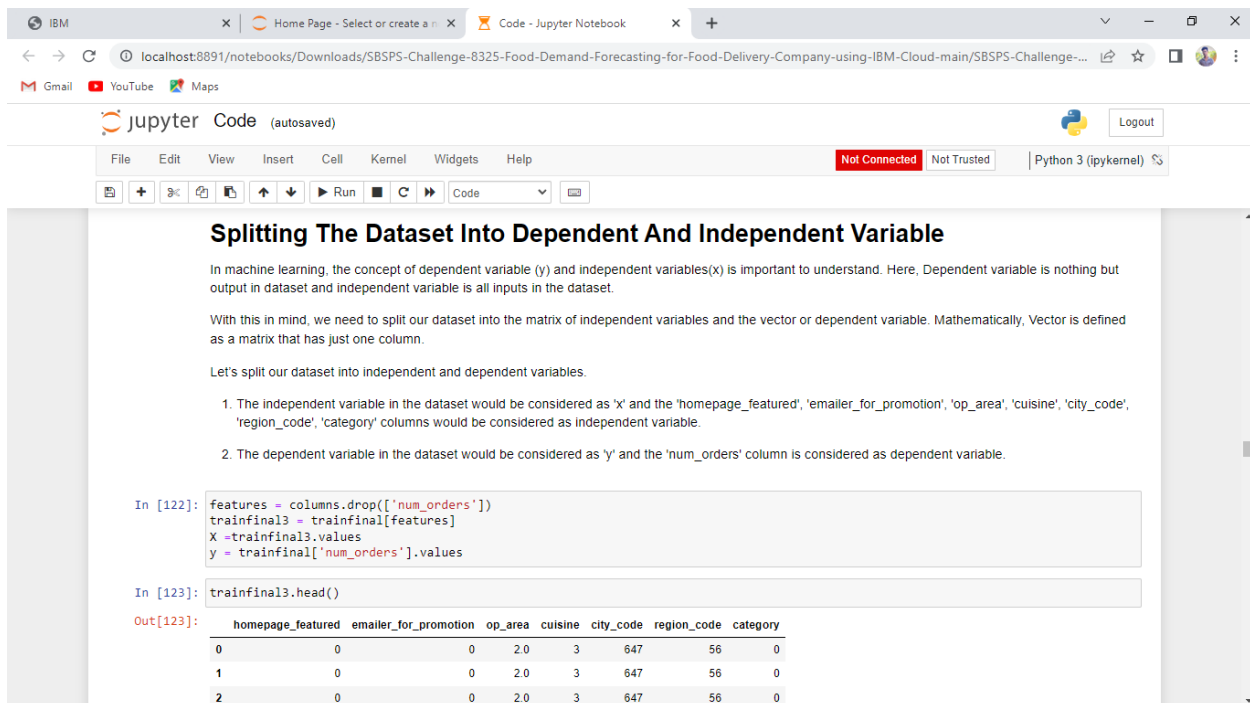


TEAM ID: PNT2022MID51052

PROJECT NAME: DemandEst - AI powered Food Demand Forecaster

Team Leader



The screenshot shows a Jupyter Notebook interface with the following content:

Splitting The Dataset Into Dependent And Independent Variable

In machine learning, the concept of dependent variable (y) and independent variables(x) is important to understand. Here, Dependent variable is nothing but output in dataset and independent variable is all inputs in the dataset.

With this in mind, we need to split our dataset into the matrix of independent variables and the vector or dependent variable. Mathematically, Vector is defined as a matrix that has just one column.

Let's split our dataset into independent and dependent variables.

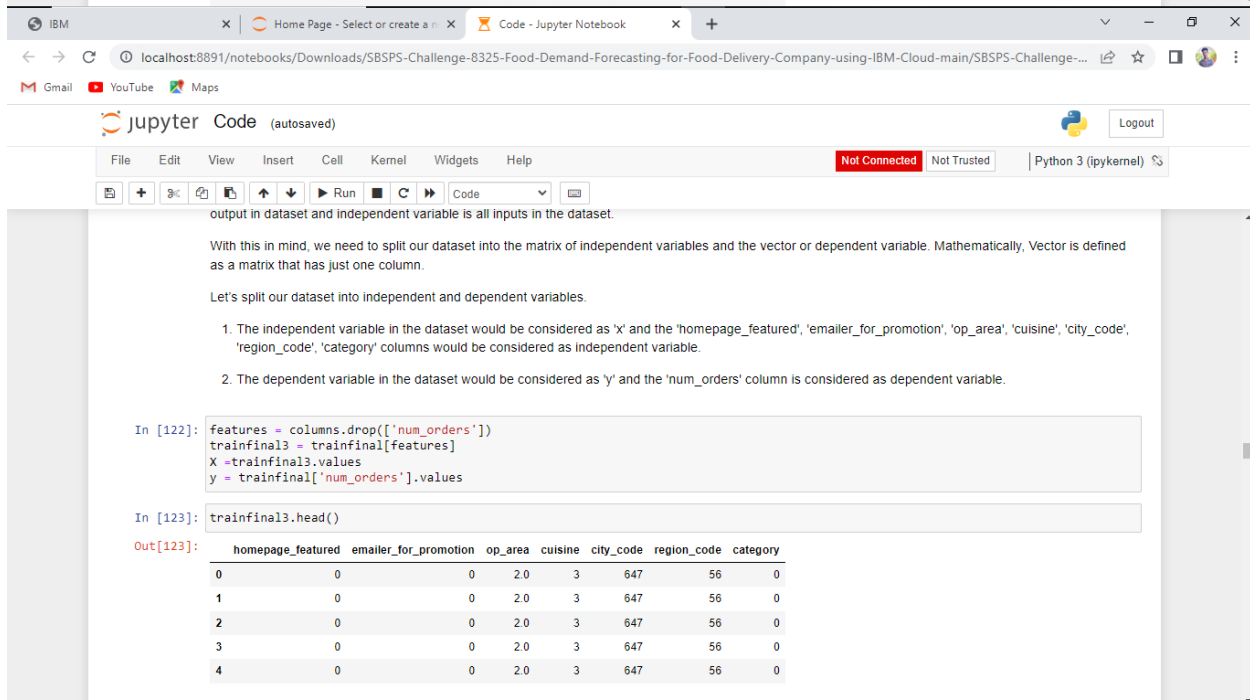
1. The independent variable in the dataset would be considered as 'x' and the 'homepage_featured', 'emailer_for_promotion', 'op_area', 'cuisine', 'city_code', 'region_code', 'category' columns would be considered as independent variable.
2. The dependent variable in the dataset would be considered as 'y' and the 'num_orders' column is considered as dependent variable.

```
In [122]: features = columns.drop(['num_orders'])
trainfinal3 = trainfinal[features]
X = trainfinal3.values
y = trainfinal['num_orders'].values
```

```
In [123]: trainfinal3.head()
```

```
Out[123]:
```

	homepage_featured	emailer_for_promotion	op_area	cuisine	city_code	region_code	category
0	0	0	2.0	3	647	56	0
1	0	0	2.0	3	647	56	0
2	0	0	2.0	3	647	56	0



This screenshot shows the continuation of the Jupyter Notebook from the previous one, displaying the same text and code blocks. The output table for the head of the dataset is larger, showing 5 rows:

```
Out[123]:
```

	homepage_featured	emailer_for_promotion	op_area	cuisine	city_code	region_code	category
0	0	0	2.0	3	647	56	0
1	0	0	2.0	3	647	56	0
2	0	0	2.0	3	647	56	0
3	0	0	2.0	3	647	56	0
4	0	0	2.0	3	647	56	0

Team Member 1

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In [123]: trainfinal3.head()
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```
Out[123]:
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	homepage_featured	emailer_for_promotion	op_area	cuisine	city_code	region_code	category
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The screenshot shows the continuation of the Jupyter Notebook with the following content:

output in dataset and independent variable is all inputs in the dataset.

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Out[123]:
```

	homepage_featured	emailer_for_promotion	op_area	cuisine	city_code	region_code	category
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1	0	0	2.0	3	647	56	0
2	0	0	2.0	3	647	56	0
3	0	0	2.0	3	647	56	0
4	0	0	2.0	3	647	56	0

Team Member 2

The screenshot shows a Jupyter Notebook interface with the following content:

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Team Member 3

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4	0	0	2.0	3	647	56	0