

TEAM ID: PNT2022TMID14136

PROJECT NAME: DemandEst AI-powered Food Demand Forecaster

Team Leader

The screenshot displays a Jupyter Notebook environment with two visible code cells. The first cell, titled "Predicting The Output Using The Model", contains Python code for data merging, feature selection, and model prediction. The second cell contains code for submitting the predicted values to a CSV file and displaying a summary of the submission data.

Predicting The Output Using The Model

Here, we are creating `X_test` which we are using to test the model to predict the number of orders by giving input to the model build.

```
In [133]: testfinal = pd.merge(test, meal_info, on="meal_id", how="outer")
testfinal = pd.merge(testfinal, fulfilment_center_info, on="center_id", how="outer")
testfinal = testfinal.drop(['meal_id', 'center_id'], axis=1)

tcols = testfinal.columns.tolist()
tcols = tcols[:2] + tcols[8:8] + tcols[6:8] + tcols[2:6]
testfinal = testfinal[tcols]

Ib1 = LabelEncoder()
testfinal['center_type'] = Ib1.fit_transform(testfinal['center_type'])

Ib2 = LabelEncoder()
testfinal['category'] = Ib2.fit_transform(testfinal['category'])

Ib3 = LabelEncoder()
testfinal['cuisine'] = Ib3.fit_transform(testfinal['cuisine'])

X_test = testfinal[features].values

In [134]: pred = DT.predict(X_test)
pred[pred<0] = 0
submit = pd.DataFrame({
    'id': testfinal['id'],
    'num_orders': pred
})
```

Submit the predicted output values(Number of orders) to "submission.csv"

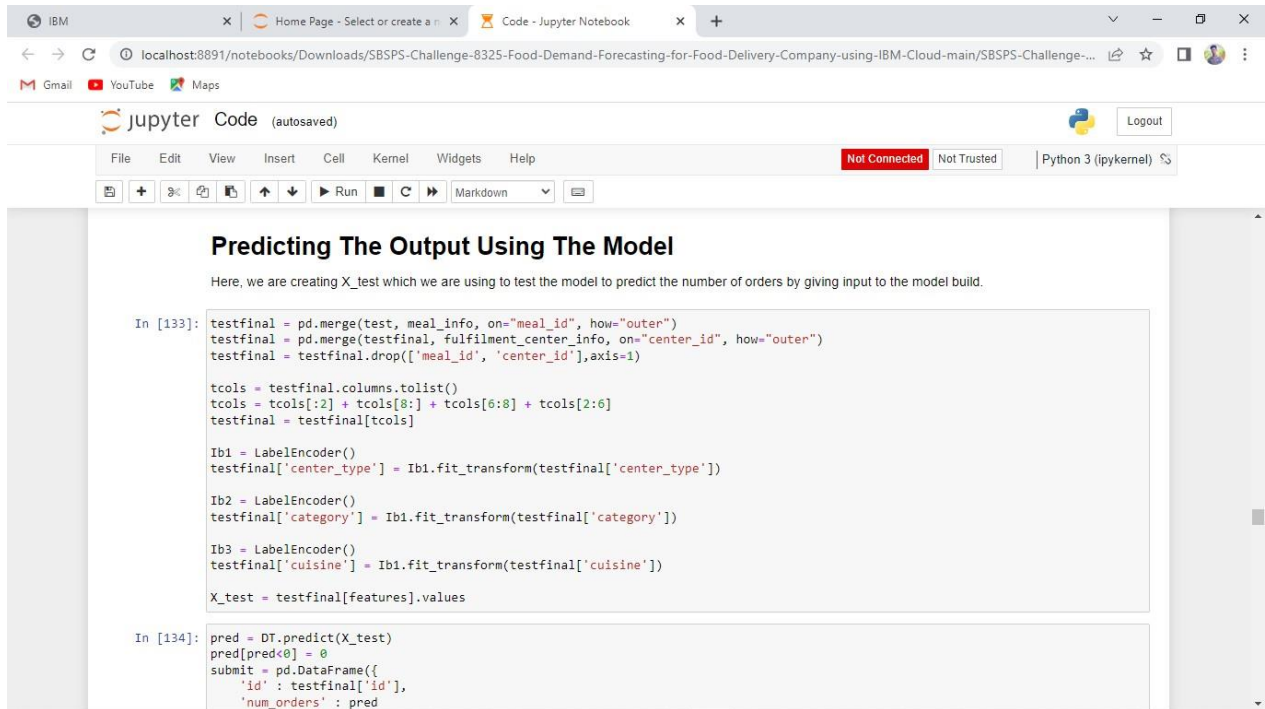
```
In [135]: submit.to_csv("submission.csv", index=False)
```

```
In [136]: submit.describe()
```

Out[136]:

	id	num_orders
count	3.257300e+04	32573.000000
mean	1.248479e+06	263.114244
std	1.441580e+05	367.092916
min	1.000085e+06	14.666667
25%	1.123969e+06	64.113281
50%	1.247299e+06	147.022222
75%	1.372971e+06	324.133333
max	1.499999e+06	6174.850000

Team Member 1



The screenshot shows a Jupyter Notebook interface with a browser window at the top. The notebook is titled "Predicting The Output Using The Model". Below the title, there is a text block stating: "Here, we are creating X_test which we are using to test the model to predict the number of orders by giving input to the model build." The notebook contains two code cells. The first cell, labeled "In [133]:", contains code for merging dataframes, dropping columns, and creating X_test. The second cell, labeled "In [134]:", contains code for predicting the output using the model and creating a submit dataframe.

```
In [133]: testfinal = pd.merge(test, meal_info, on="meal_id", how="outer")
testfinal = pd.merge(testfinal, fulfilment_center_info, on="center_id", how="outer")
testfinal = testfinal.drop(['meal_id', 'center_id'], axis=1)

tcols = testfinal.columns.tolist()
tcols = tcols[:2] + tcols[8:] + tcols[6:8] + tcols[2:6]
testfinal = testfinal[tcols]

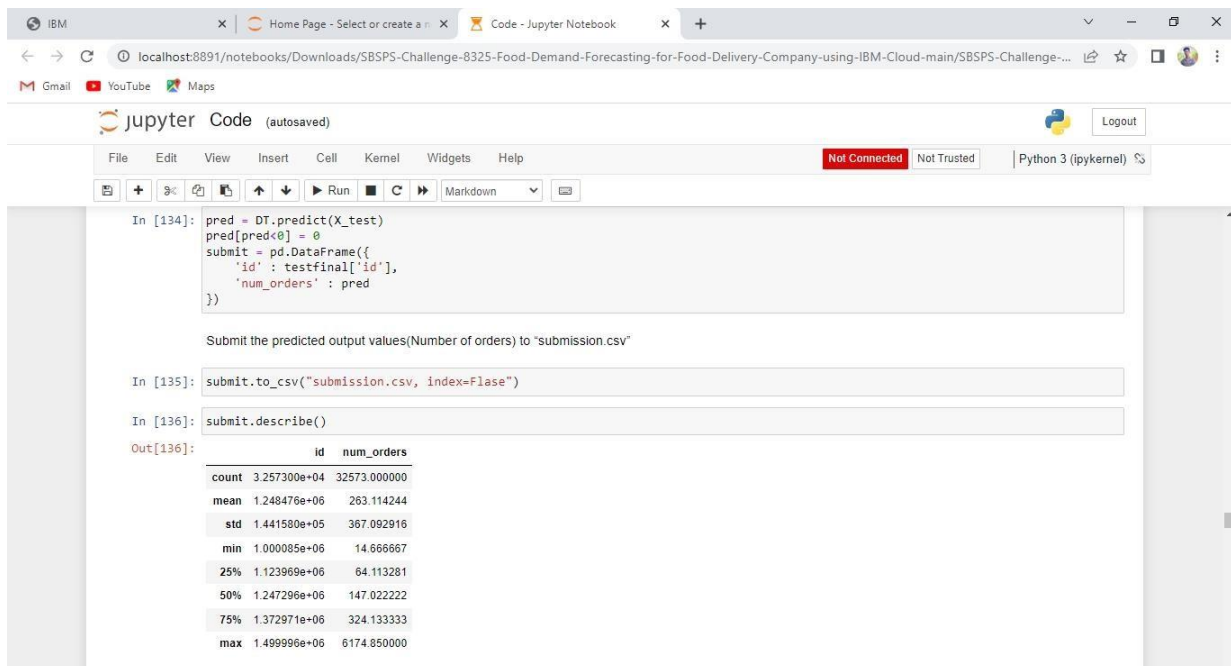
Ib1 = LabelEncoder()
testfinal['center_type'] = Ib1.fit_transform(testfinal['center_type'])

Ib2 = LabelEncoder()
testfinal['category'] = Ib1.fit_transform(testfinal['category'])

Ib3 = LabelEncoder()
testfinal['cuisine'] = Ib1.fit_transform(testfinal['cuisine'])

X_test = testfinal[features].values

In [134]: pred = DT.predict(X_test)
pred[pred<0] = 0
submit = pd.DataFrame({
    'id': testfinal['id'],
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})
```



The screenshot shows a Jupyter Notebook interface with a browser window at the top. The notebook contains two code cells. The first cell, labeled "In [134]:", contains code for predicting the output using the model and creating a submit dataframe. The second cell, labeled "In [135]:", contains code for submitting the predicted output values to a CSV file. Below the code cells, there is a text block stating: "Submit the predicted output values(Number of orders) to 'submission.csv'". The notebook also shows the output of the submit.describe() function, which is a summary of the submit dataframe.

```
In [134]: pred = DT.predict(X_test)
pred[pred<0] = 0
submit = pd.DataFrame({
    'id': testfinal['id'],
    'num_orders': pred
})

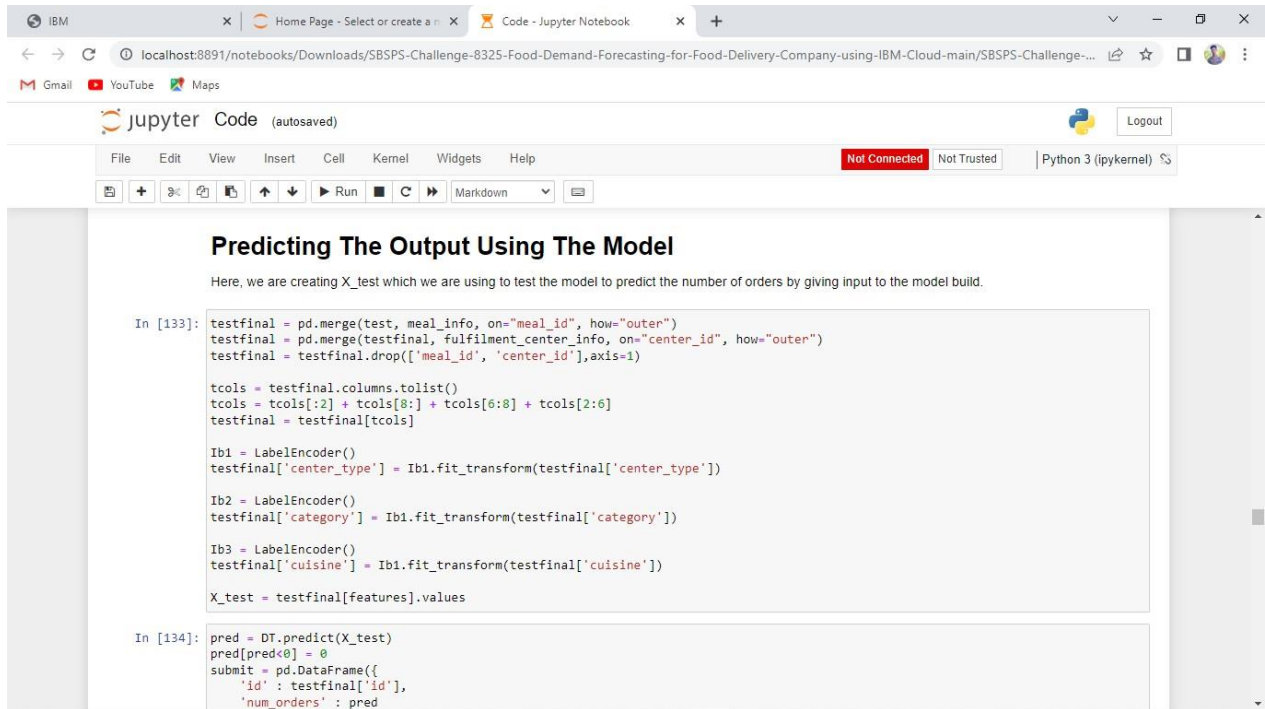
In [135]: submit.to_csv("submission.csv", index=False)

In [136]: submit.describe()

Out[136]:
```

	id	num_orders
count	3.257300e+04	32573.000000
mean	1.248476e+06	263.114244
std	1.441580e+05	367.092916
min	1.000085e+06	14.666667
25%	1.123969e+06	64.113281
50%	1.247296e+06	147.022222
75%	1.372971e+06	324.133333
max	1.499996e+06	6174.850000

Team Member 2



The screenshot shows a Jupyter Notebook interface with a browser window at the top. The notebook is titled "Predicting The Output Using The Model". Below the title, there is a text block explaining that the goal is to create an `X_test` dataset to test the model. The code is written in Python and uses pandas, sklearn, and a decision tree model (`DT`). The code is as follows:

```
In [133]: testfinal = pd.merge(test, meal_info, on="meal_id", how="outer")
testfinal = pd.merge(testfinal, fulfilment_center_info, on="center_id", how="outer")
testfinal = testfinal.drop(['meal_id', 'center_id'], axis=1)

tcols = testfinal.columns.tolist()
tcols = tcols[:2] + tcols[8:] + tcols[6:8] + tcols[2:6]
testfinal = testfinal[tcols]

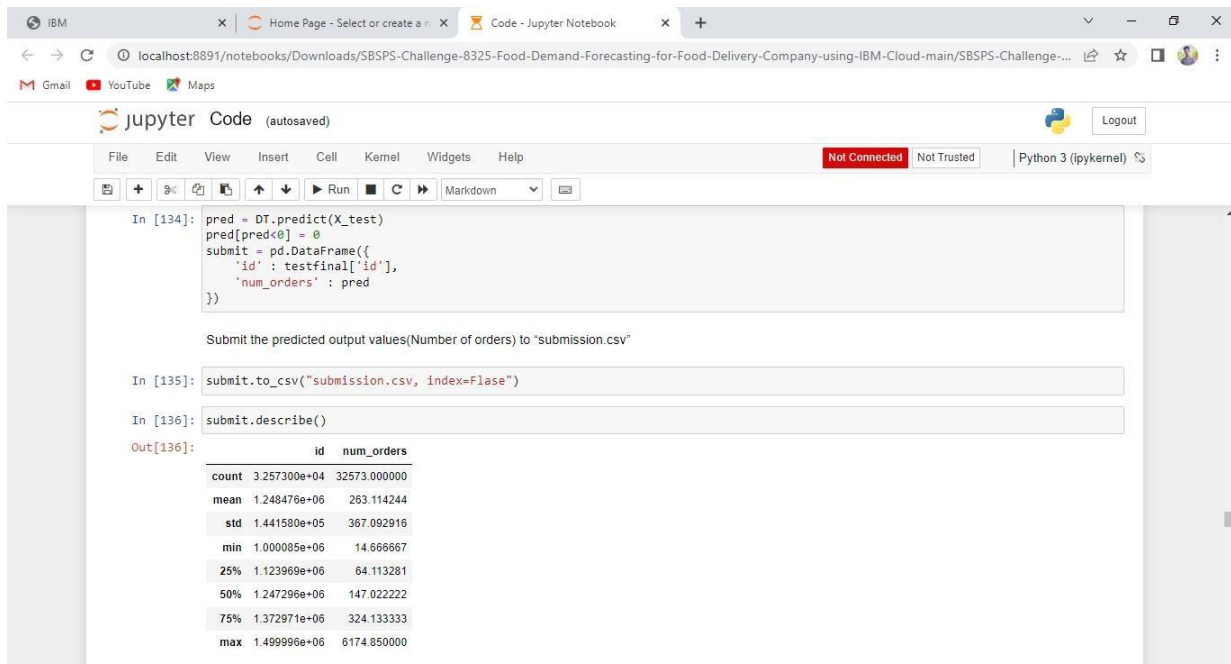
Ib1 = LabelEncoder()
testfinal['center_type'] = Ib1.fit_transform(testfinal['center_type'])

Ib2 = LabelEncoder()
testfinal['category'] = Ib1.fit_transform(testfinal['category'])

Ib3 = LabelEncoder()
testfinal['cuisine'] = Ib1.fit_transform(testfinal['cuisine'])

X_test = testfinal[features].values

In [134]: pred = DT.predict(X_test)
pred[pred<0] = 0
submit = pd.DataFrame({
    'id': testfinal['id'],
    'num_orders': pred
})
```



The screenshot shows the continuation of the Jupyter Notebook. The code in the previous cell is repeated, followed by instructions to submit the predictions and display statistics. The code is as follows:

```
In [134]: pred = DT.predict(X_test)
pred[pred<0] = 0
submit = pd.DataFrame({
    'id': testfinal['id'],
    'num_orders': pred
})

Submit the predicted output values(Number of orders) to "submission.csv"

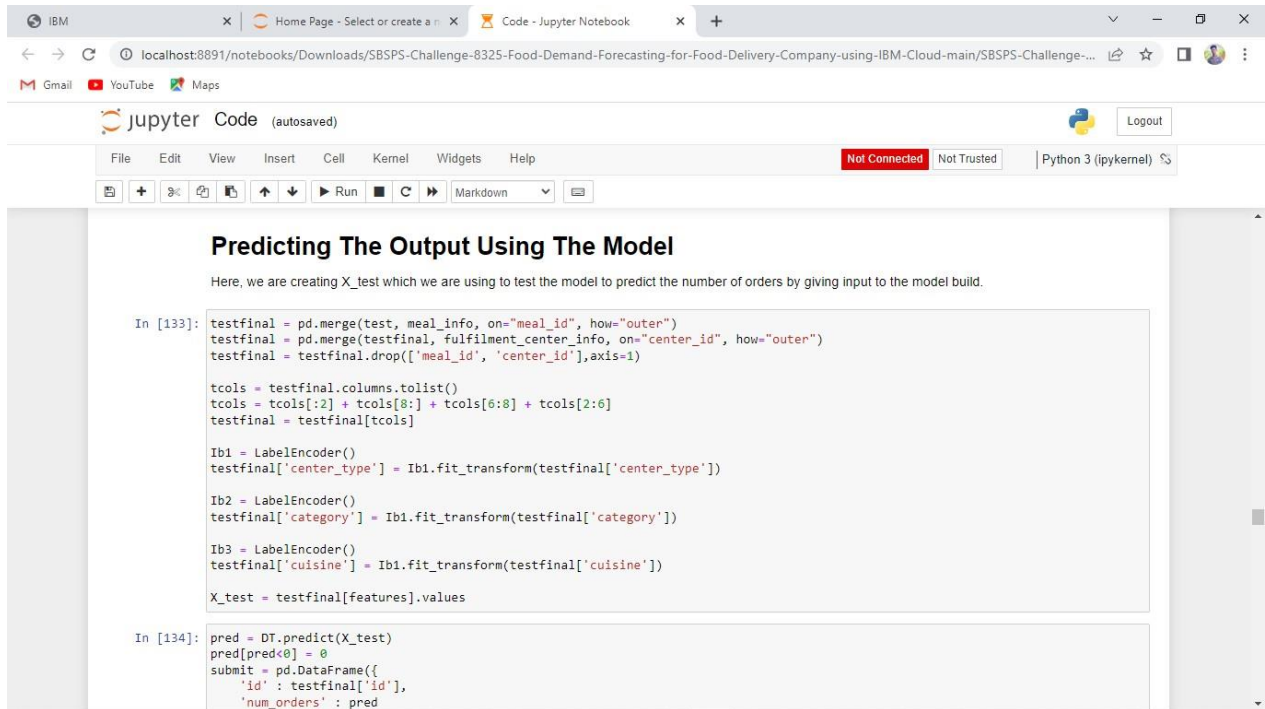
In [135]: submit.to_csv("submission.csv", index=False)

In [136]: submit.describe()

Out[136]:
```

	id	num_orders
count	3.257300e+04	32573.000000
mean	1.248476e+06	283.114244
std	1.441580e+05	367.092916
min	1.000085e+06	14.666667
25%	1.123969e+06	64.113281
50%	1.247296e+06	147.022222
75%	1.372971e+06	324.133333
max	1.499996e+06	6174.850000

Team Member 3



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tcols = testfinal.columns.tolist()
tcols = tcols[:2] + tcols[8:] + tcols[6:8] + tcols[2:6]
testfinal = testfinal[tcols]

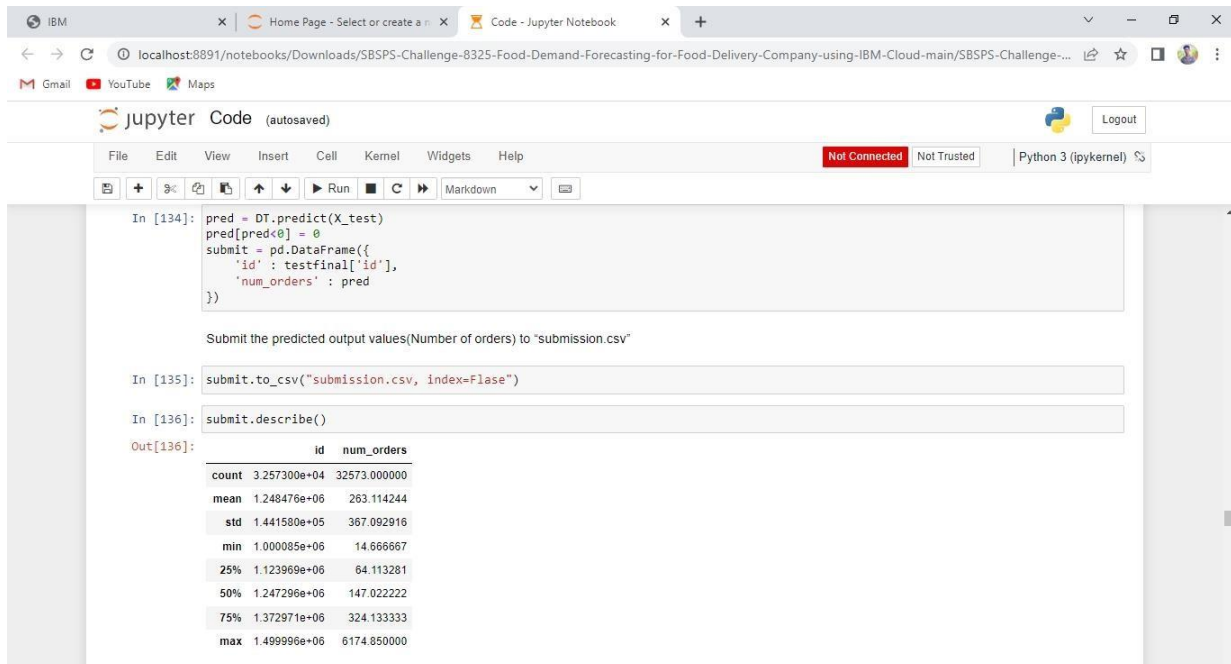
Ib1 = LabelEncoder()
testfinal['center_type'] = Ib1.fit_transform(testfinal['center_type'])

Ib2 = LabelEncoder()
testfinal['category'] = Ib1.fit_transform(testfinal['category'])

Ib3 = LabelEncoder()
testfinal['cuisine'] = Ib1.fit_transform(testfinal['cuisine'])

X_test = testfinal[features].values

In [134]: pred = DT.predict(X_test)
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submit = pd.DataFrame({
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In [135]: submit.to_csv("submission.csv", index=False)

In [136]: submit.describe()

Out[136]:
```

	id	num_orders
count	3.257300e+04	32573.000000
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