

TEAM ID: PNT2022TMID44529

PROJECT NAME: DemandEst - AI powered Food Demand Forecaster

The screenshot displays a Jupyter Notebook interface with two visible code cells. The first cell, labeled 'In [133]:', contains Python code for data preprocessing and model prediction. The second cell, labeled 'In [134]:', contains code for submitting the predicted values to a CSV file. Below the second cell, the output of the submission is shown as a table.

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:] + 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	1.248476e+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	1.499999e+06	6174.850000

