TEAM ID: PNT2022TMID03401

PROJECT NAME: DemanEst – AI powered Food Demand Forecaster

Model Evalution

In [58]:
```
XG = XGBRegressor()
XG.fit(X_train, Y_train)
y_pred = XG.predict(X_val)
y_pred[y_pred<0] = 0
from sklearn import metrics
print('RMSLE:', 100*np.sqrt(metrics.mean_squared_log_error(Y_val, y_pred)))
```

```
[07:02:44] WARNING: /workspace/src/objective/regression_obj.cu:152: reg:linear is now deprecated in favor of reg:squareder
ror.
RMSLE: 101.75835240676072
```

In [59]:
```
LR = LinearRegression()
LR.fit(X_train, Y_train)
y_pred = LR.predict(X_val)
y_pred[y_pred<0] = 0
from sklearn import metrics
print('RMSLE:', 100*np.sqrt(metrics.mean_squared_log_error(Y_val, y_pred)))
```

```
RMSLE: 155.0295463202577
```

In [60]:
```
L = Lasso()
L.fit(X_train, Y_train)
y_pred = L.predict(X_val)
y_pred[y_pred<0] = 0
from sklearn import metrics
print('RMSLE:', 100*np.sqrt(metrics.mean_squared_log_error(Y_val, y_pred)))
```

```
RMSLE: 153.61529213206654
```

In [61]:
```
EN = ElasticNet()
EN.fit(X_train, Y_train)
y_pred = EN.predict(X_val)
y_pred[y_pred<0] = 0
from sklearn import metrics
print('RMSLE:', 100*np.sqrt(metrics.mean_squared_log_error(Y_val, y_pred)))
```

```
RMSLE: 128.18160427515775
```

In [62]:
```
DT = DecisionTreeRegressor()
DT.fit(X_train, Y_train)
y_pred = DT.predict(X_val)
y_pred[y_pred<0] = 0
from sklearn import metrics
print('RMSLE:', 100*np.sqrt(metrics.mean_squared_log_error(Y_val, y_pred)))
```

```
RMSLE: 89.75089729538145
```

In [63]:
```
KNN = DecisionTreeRegressor()
KNN.fit(X_train, Y_train)
y_pred = KNN.predict(X_val)
y_pred[y_pred<0] = 0
from sklearn import metrics
print('RMSLE:', 100*np.sqrt(metrics.mean_squared_log_error(Y_val, y_pred)))
```

```
RMSLE: 89.69506088378594
```

In [64]:
```
GB = DecisionTreeRegressor()
GB.fit(X_train, Y_train)
y_pred = GB.predict(X_val)
y_pred[y_pred<0] = 0
from sklearn import metrics
print('RMSLE:', 100*np.sqrt(metrics.mean_squared_log_error(Y_val, y_pred)))
```

```
RMSLE: 89.73216404160908
```