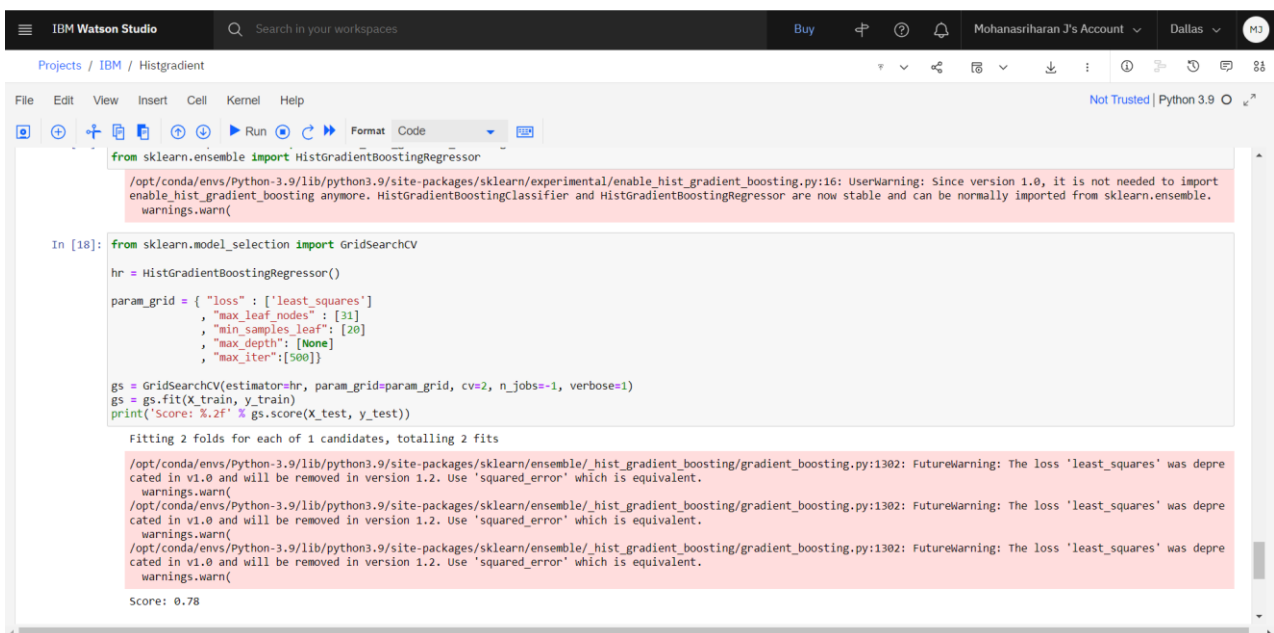


PROJECT DEVELOPMENT PHASE

DELIVERY OF SPRINT-4

DATE	10 November 2022
TEAM ID	PNT2022TMID15496
PROJECT NAME	Car Resale Value Prediction
MAXIMUM MARK	4 Marks

- Training the model in IBM Cloud



The screenshot displays the IBM Watson Studio interface. The top navigation bar includes the IBM Watson Studio logo, a search bar, and user account information (Mohanasriharan J's Account, Dallas). The main workspace shows a Jupyter Notebook with the following code:

```
from sklearn.ensemble import HistGradientBoostingRegressor

/opt/conda/envs/Python-3.9/lib/python3.9/site-packages/sklearn/experimental/enable_hist_gradient_boosting.py:16: UserWarning: Since version 1.0, it is not needed to import enable_hist_gradient_boosting anymore. HistGradientBoostingClassifier and HistGradientBoostingRegressor are now stable and can be normally imported from sklearn.ensemble.
warnings.warn(

In [18]: from sklearn.model_selection import GridSearchCV

hr = HistGradientBoostingRegressor()

param_grid = {
    "loss": ['least_squares'],
    "max_leaf_nodes": [31],
    "min_samples_leaf": [20],
    "max_depth": [None],
    "max_iter": [500]}

gs = GridSearchCV(estimator=hr, param_grid=param_grid, cv=2, n_jobs=-1, verbose=1)
gs = gs.fit(X_train, y_train)
print('Score: %.2f' % gs.score(X_test, y_test))
```

The output of the code execution is displayed below the code cell:

```
Fitting 2 folds for each of 1 candidates, totalling 2 fits

/opt/conda/envs/Python-3.9/lib/python3.9/site-packages/sklearn/ensemble/_hist_gradient_boosting/gradient_boosting.py:1302: FutureWarning: The loss 'least_squares' was deprecated in v1.0 and will be removed in version 1.2. Use 'squared_error' which is equivalent.
  warnings.warn(
/opt/conda/envs/Python-3.9/lib/python3.9/site-packages/sklearn/ensemble/_hist_gradient_boosting/gradient_boosting.py:1302: FutureWarning: The loss 'least_squares' was deprecated in v1.0 and will be removed in version 1.2. Use 'squared_error' which is equivalent.
  warnings.warn(
/opt/conda/envs/Python-3.9/lib/python3.9/site-packages/sklearn/ensemble/_hist_gradient_boosting/gradient_boosting.py:1302: FutureWarning: The loss 'least_squares' was deprecated in v1.0 and will be removed in version 1.2. Use 'squared_error' which is equivalent.
  warnings.warn(

Score: 0.78
```