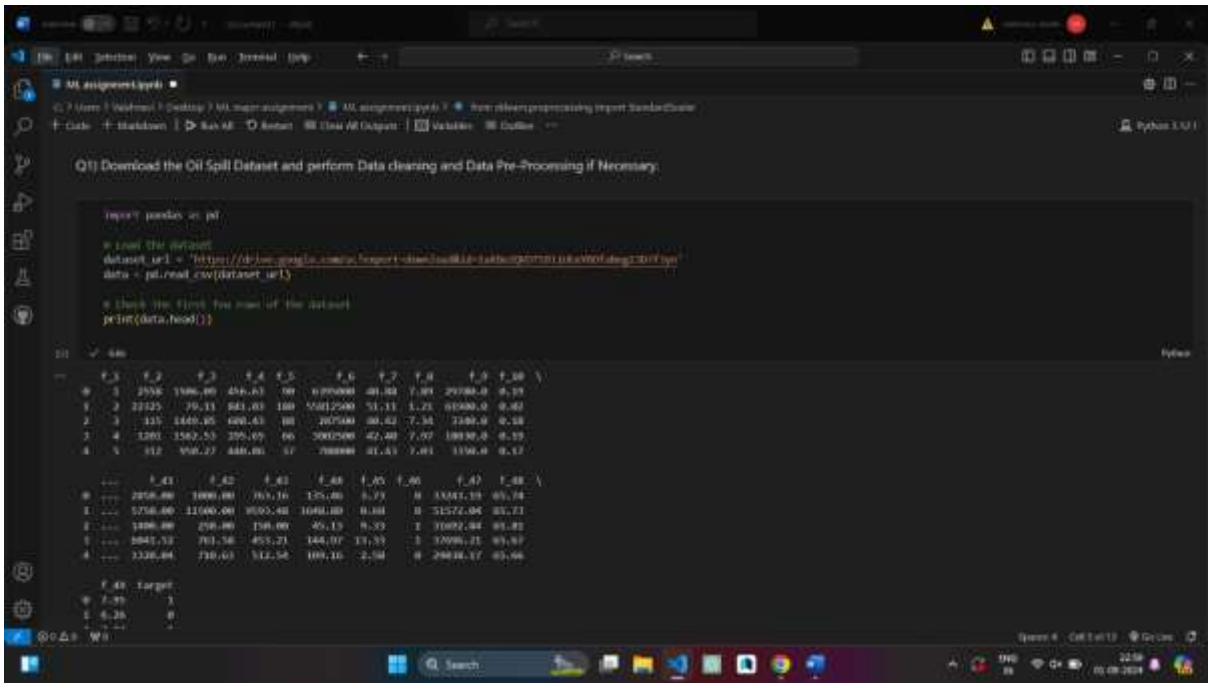
Name: Vaishnavi Digambar Jevale

Email id: vaishnavijevale59@gmail.com

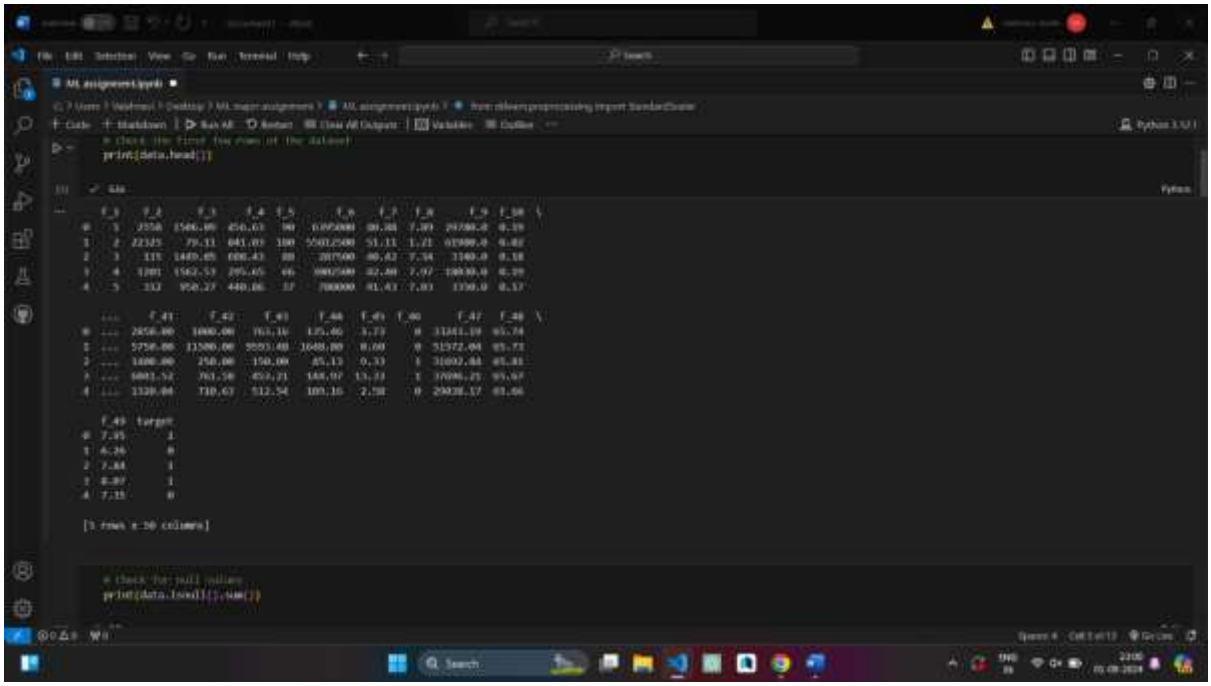
Phone no.: 9021573607

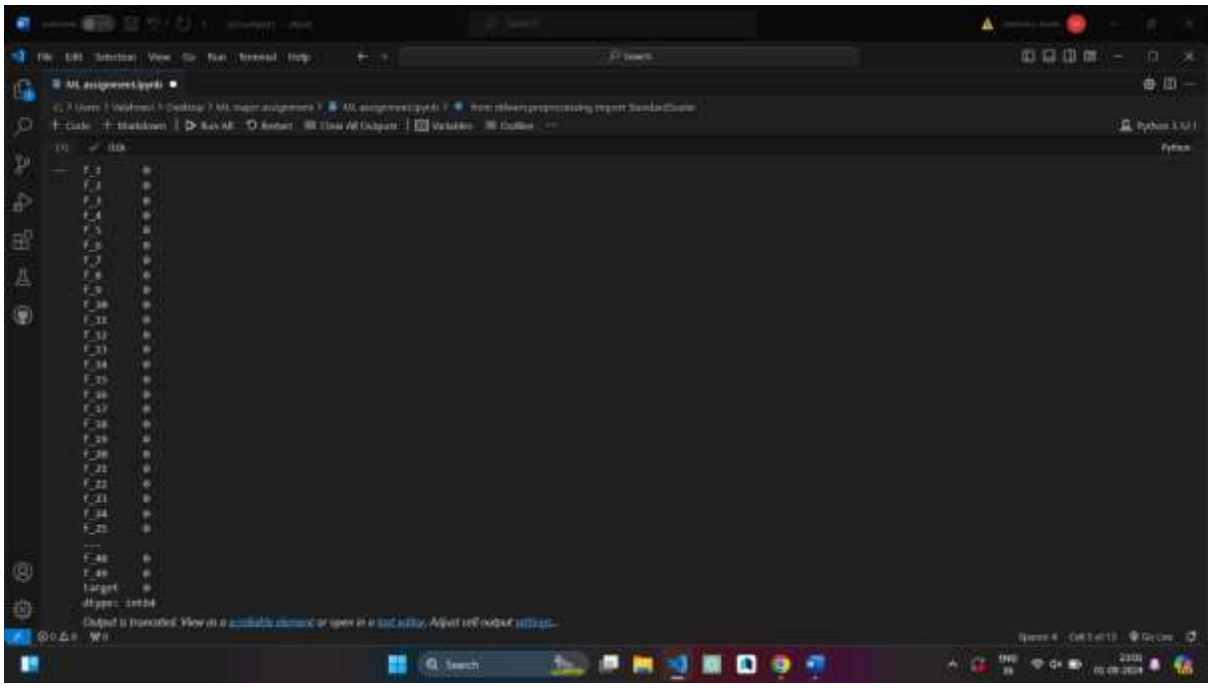
Q1) Download the Oil Spill Dataset and perform Data cleaning and Data Pre-Processing if Necessary.

INPUT:



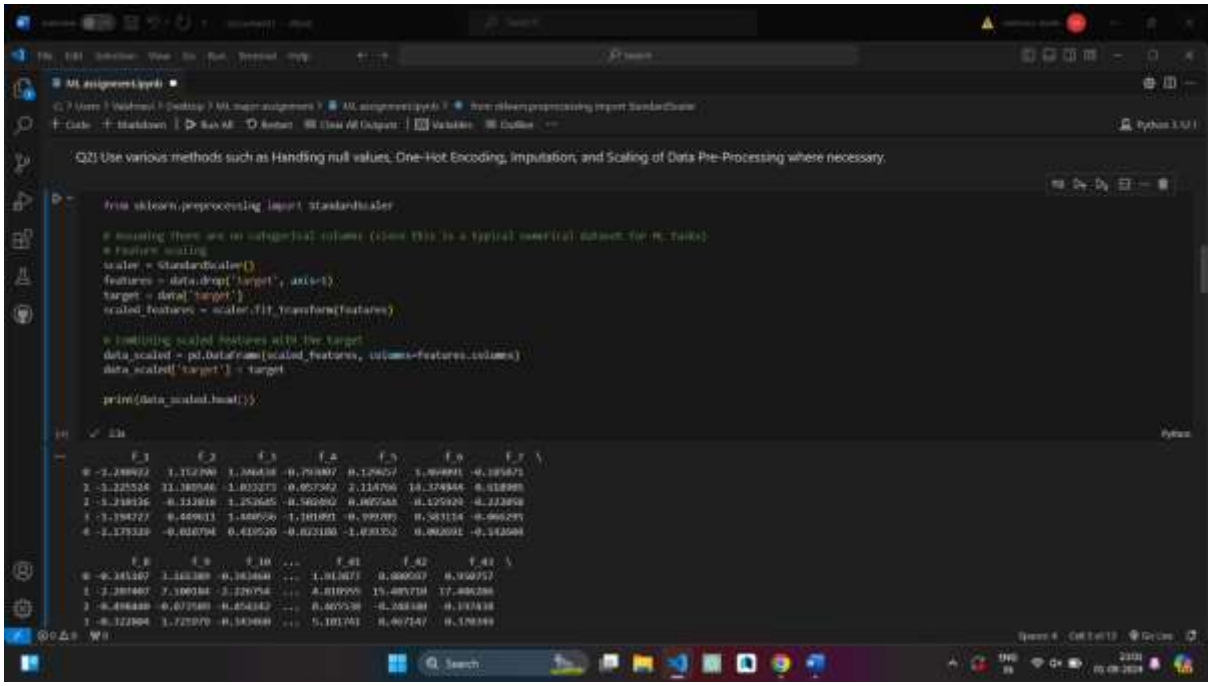
OUTPUT:



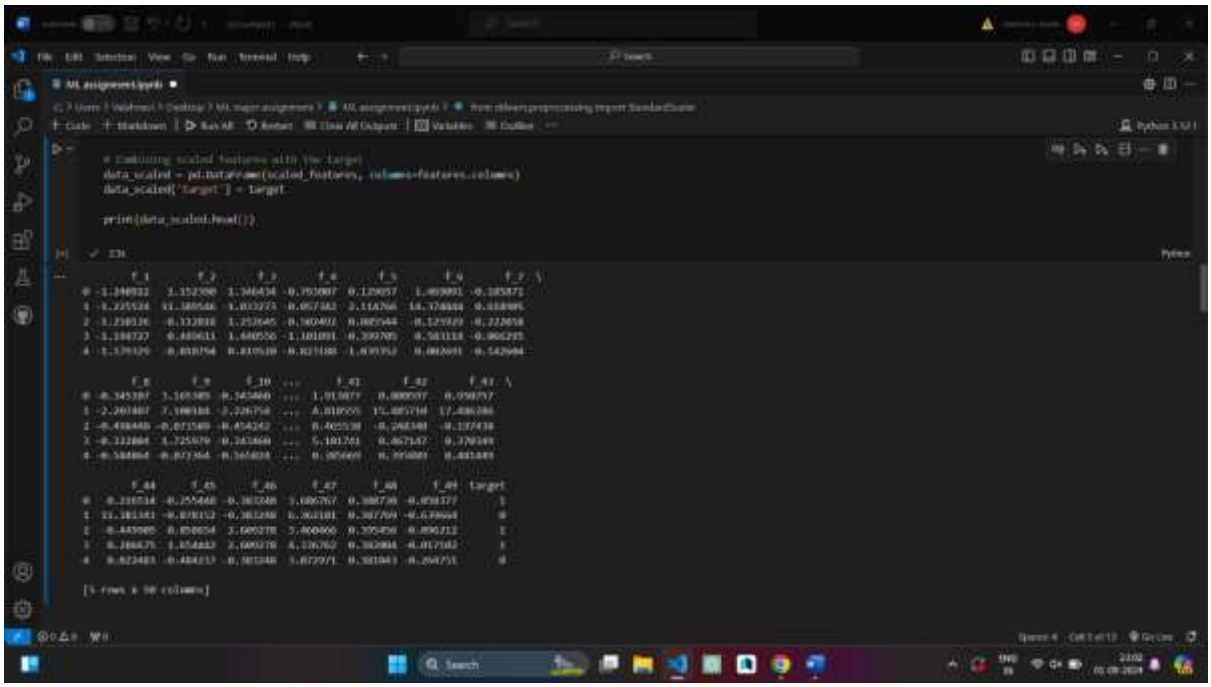


Q2) Use various methods such as Handling null values, One-Hot Encoding, Imputation, and Scaling of Data Pre-Processing where necessary.

INPUT:

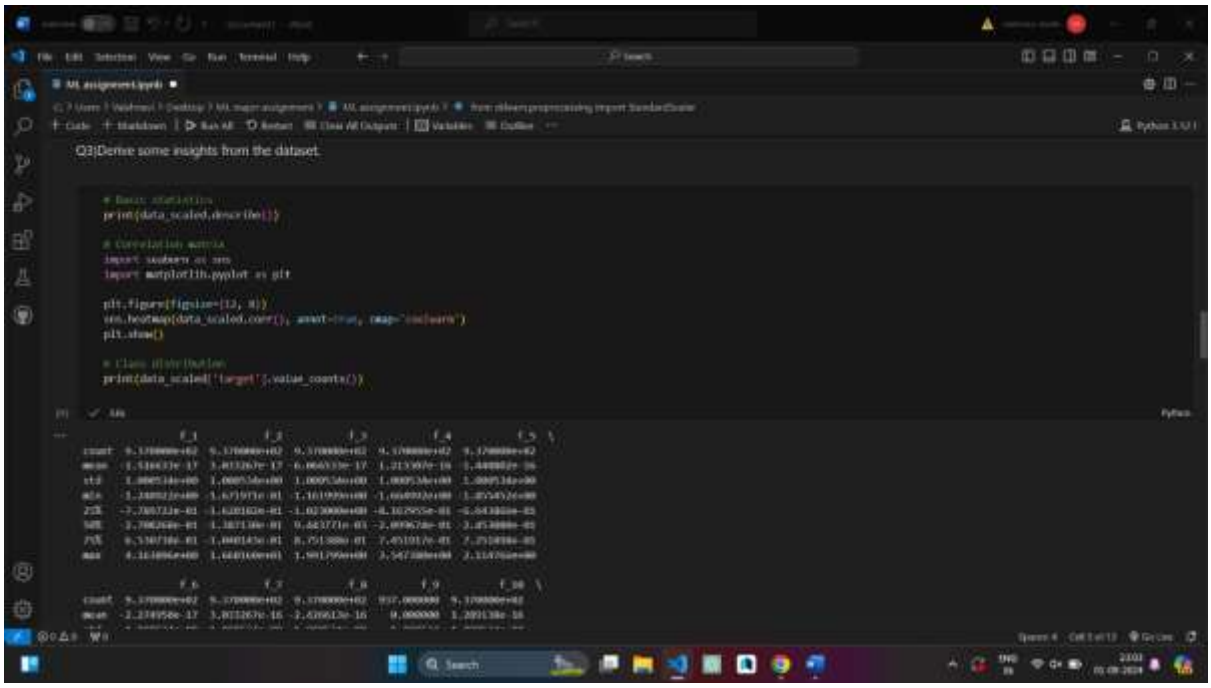


OUTPUT:

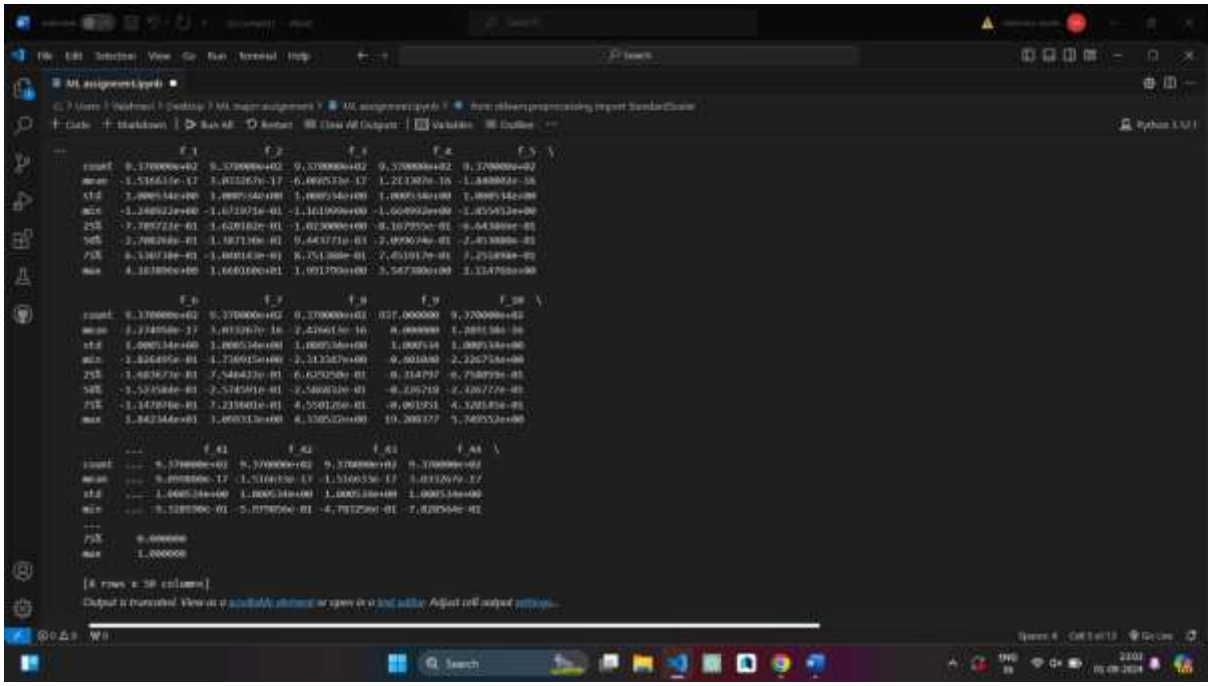


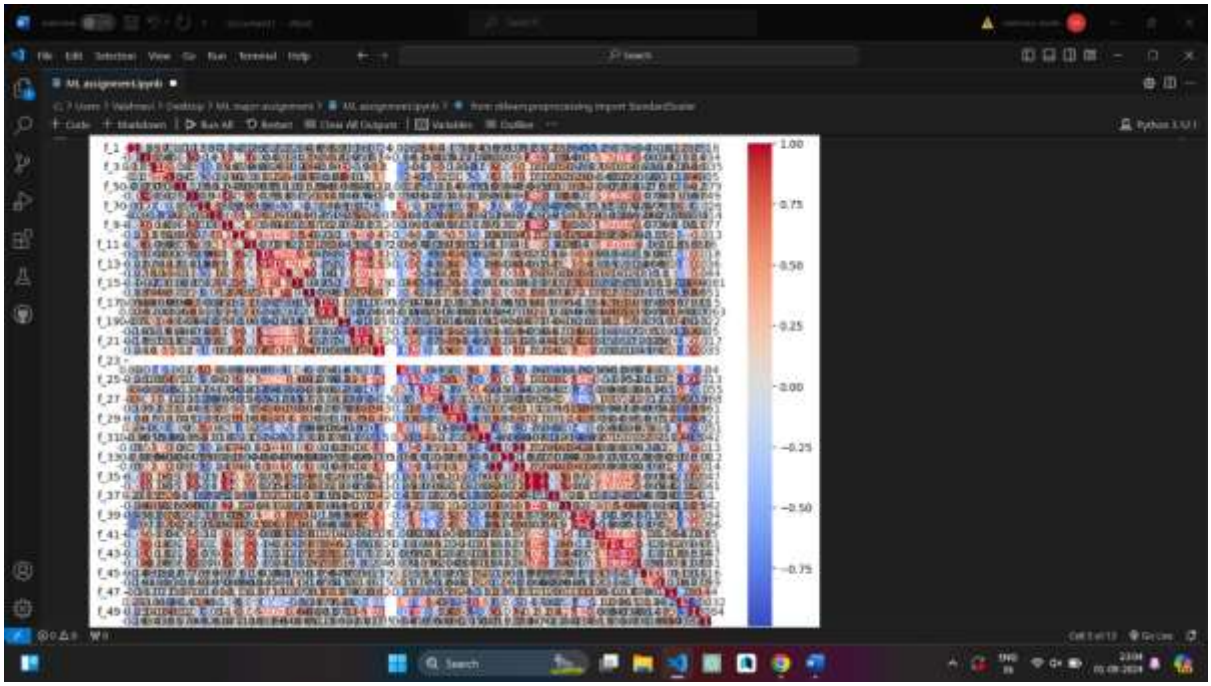
Q3)Derive some insights from the dataset.

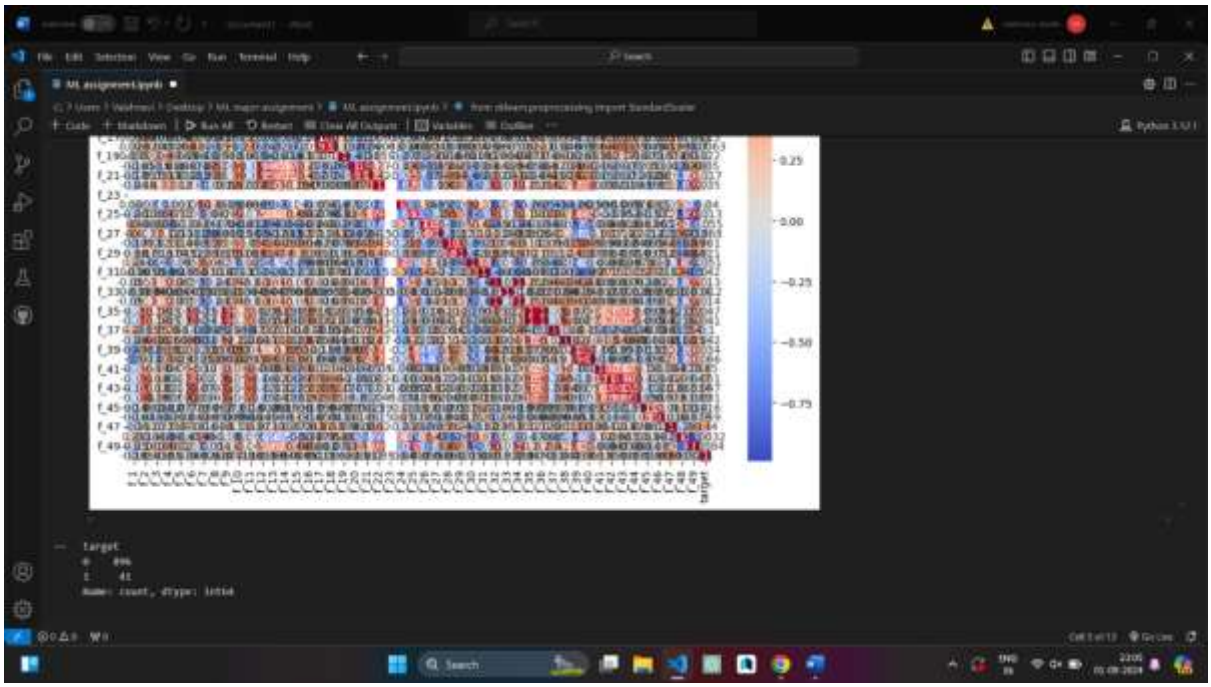
INPUT:



OUTPUT:

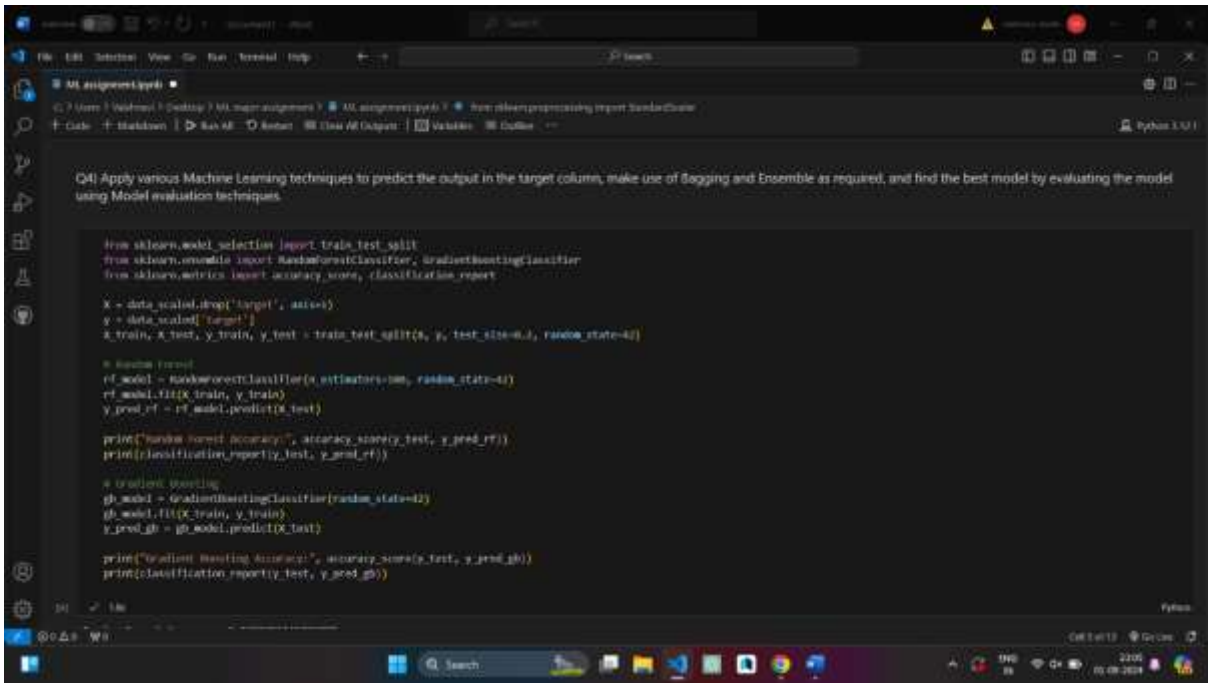




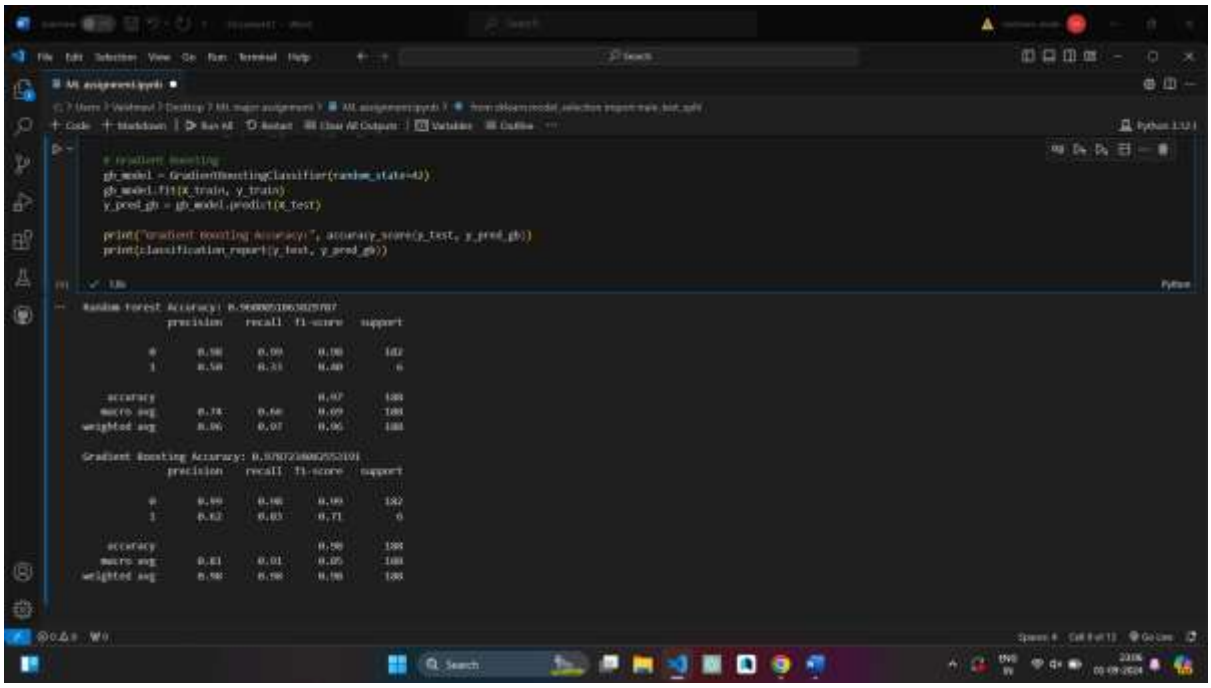

target
0 496
1 41
Name: count, dtype: int64

Q4) Apply various Machine Learning techniques to predict the output in the target column, make use of Bagging and Ensemble as required, and find the best model by evaluating the model using Model evaluation techniques.

INPUT:

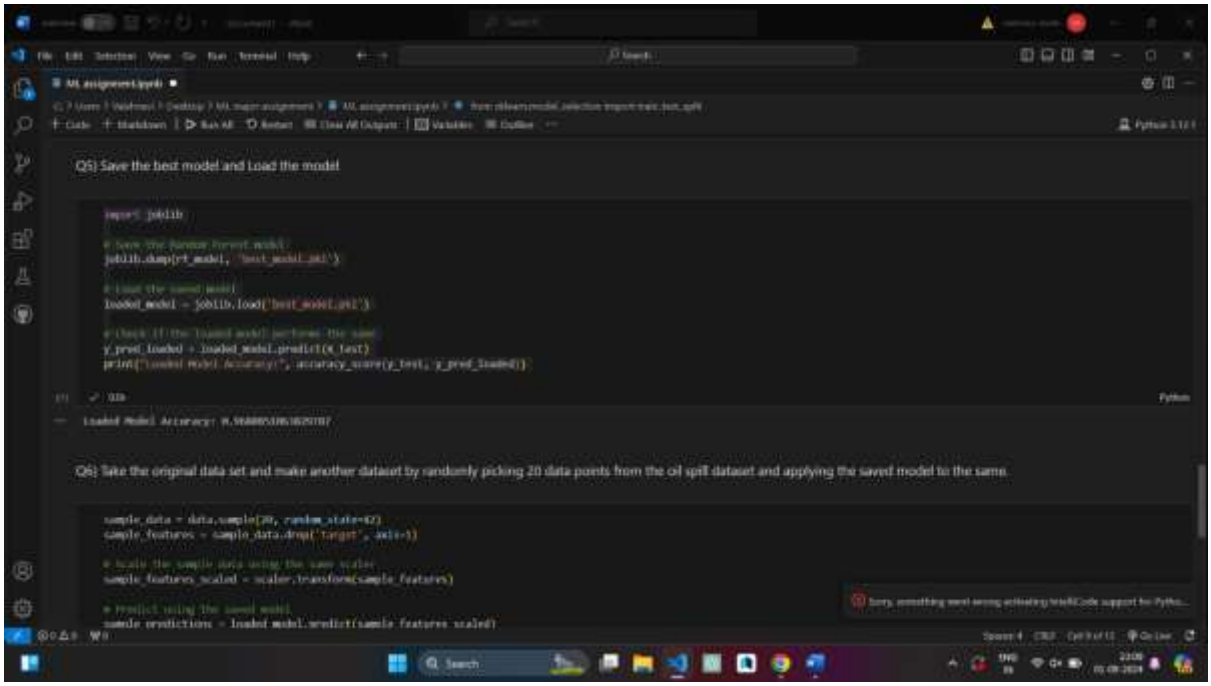


OUTPUT:

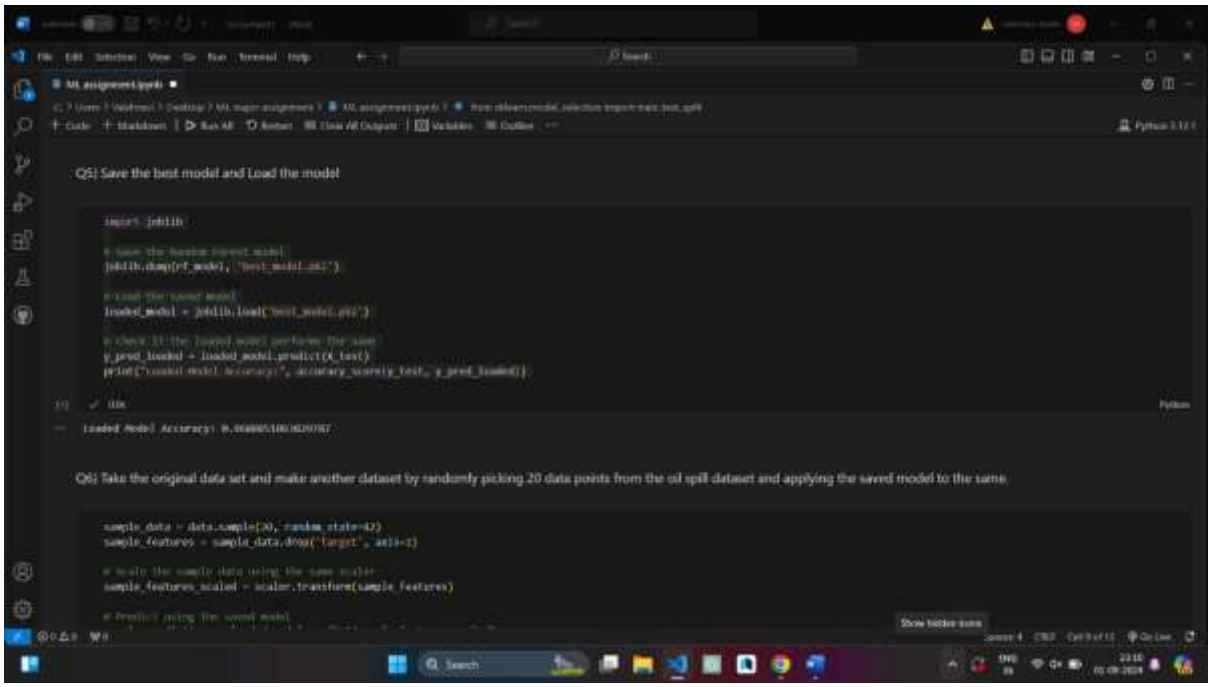


Q5) Save the best model and Load the model

INPUT:

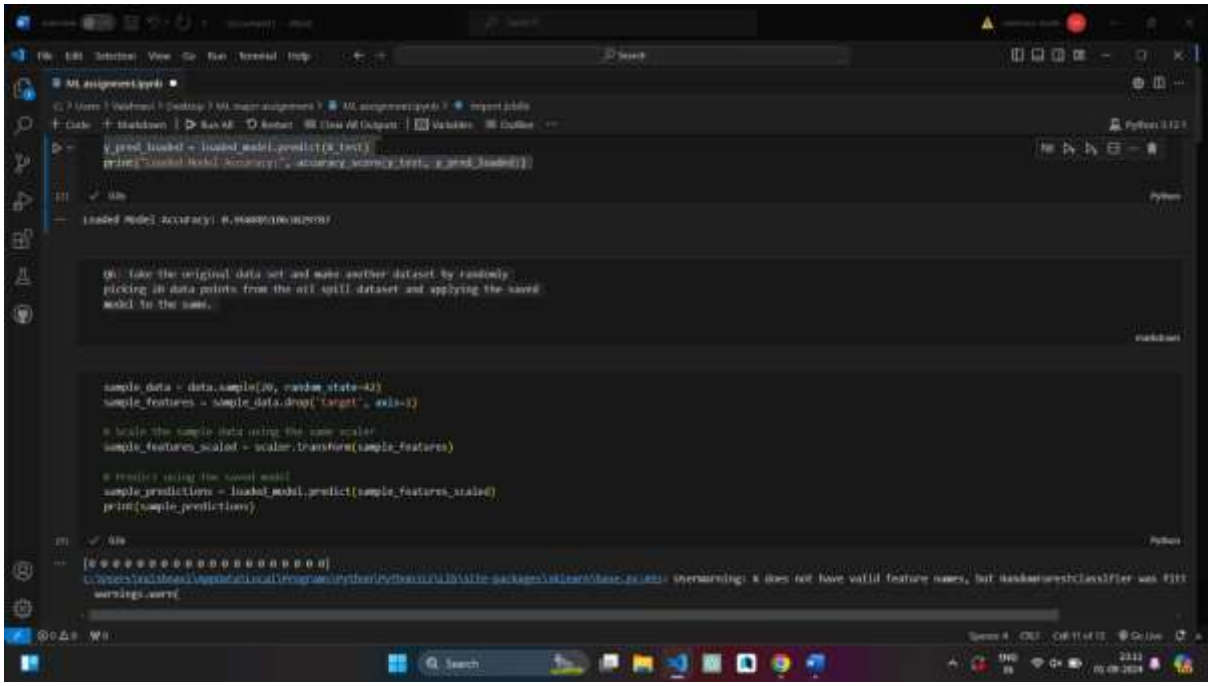


OUTPUT:

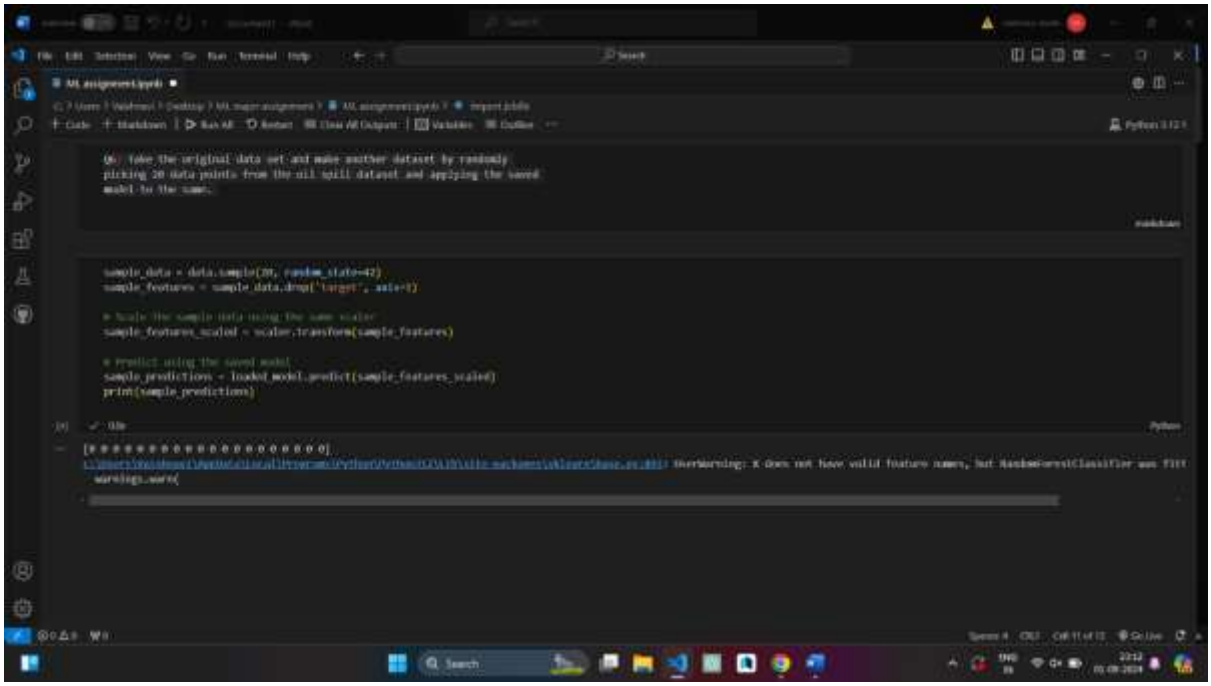


Q6) Take the original data set and make another dataset by randomly picking 20 data points from the oil spill dataset and applying the saved model to the same.

INPUT:



OUTPUT:


Q6: take the original data set and make another dataset by randomly
picking 20 data points from the oil spill dataset and applying the saved
model to the same.
sample_data = data.sample(20, random_state=42)
sample_features = sample_data.drop('target', axis=1)
sample_features_scaled = scaler.transform(sample_features)
sample_predictions = loaded_model.predict(sample_features_scaled)
print(sample_predictions)
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]