# Third Year B. Tech (EL & CE)

**Semester: VI Subject:** Data Science for Engineering

**Name: Shreerang Mhatre Class: TY**

**Roll No: 52 Batch: A2**

# Experiment No: 06

**Name of the Experiment**: **Classification using naive bayes model**

**Performed on: 25/04/2024**

**Submitted on: 25/04/2024**

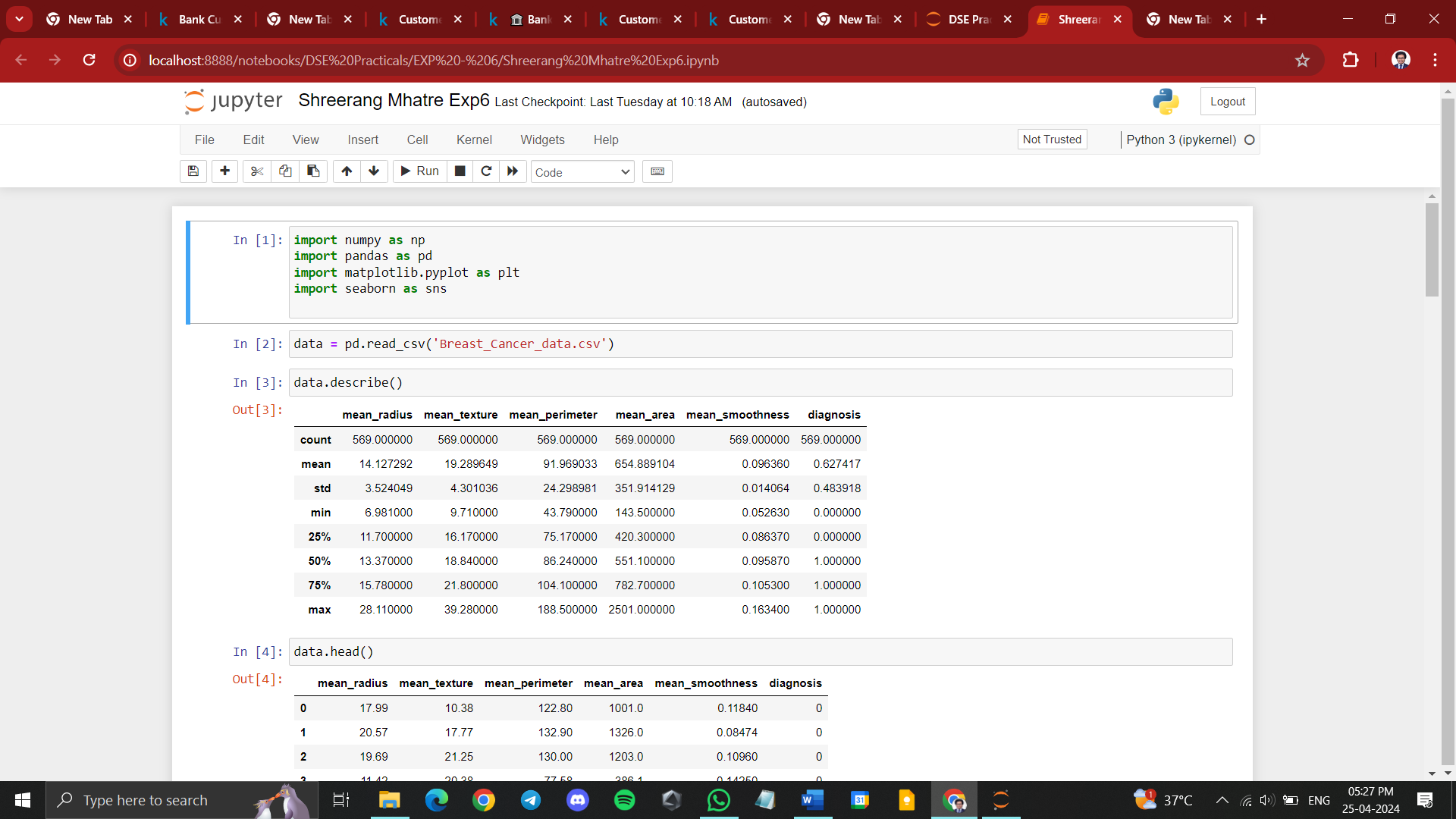
**Problem Statement:**

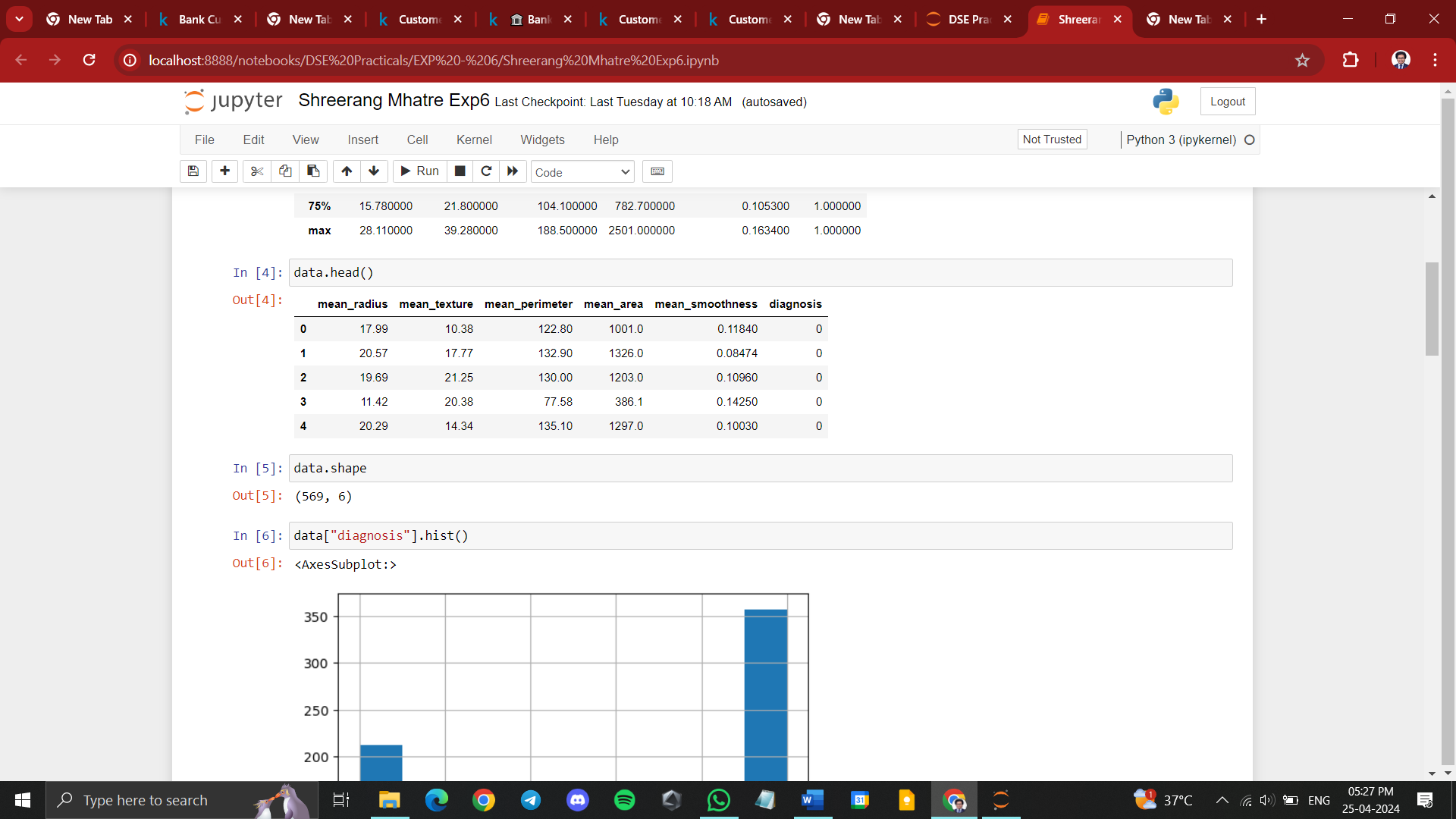
Aim: Write a python program to build a model to classify the type of cancer. The data has

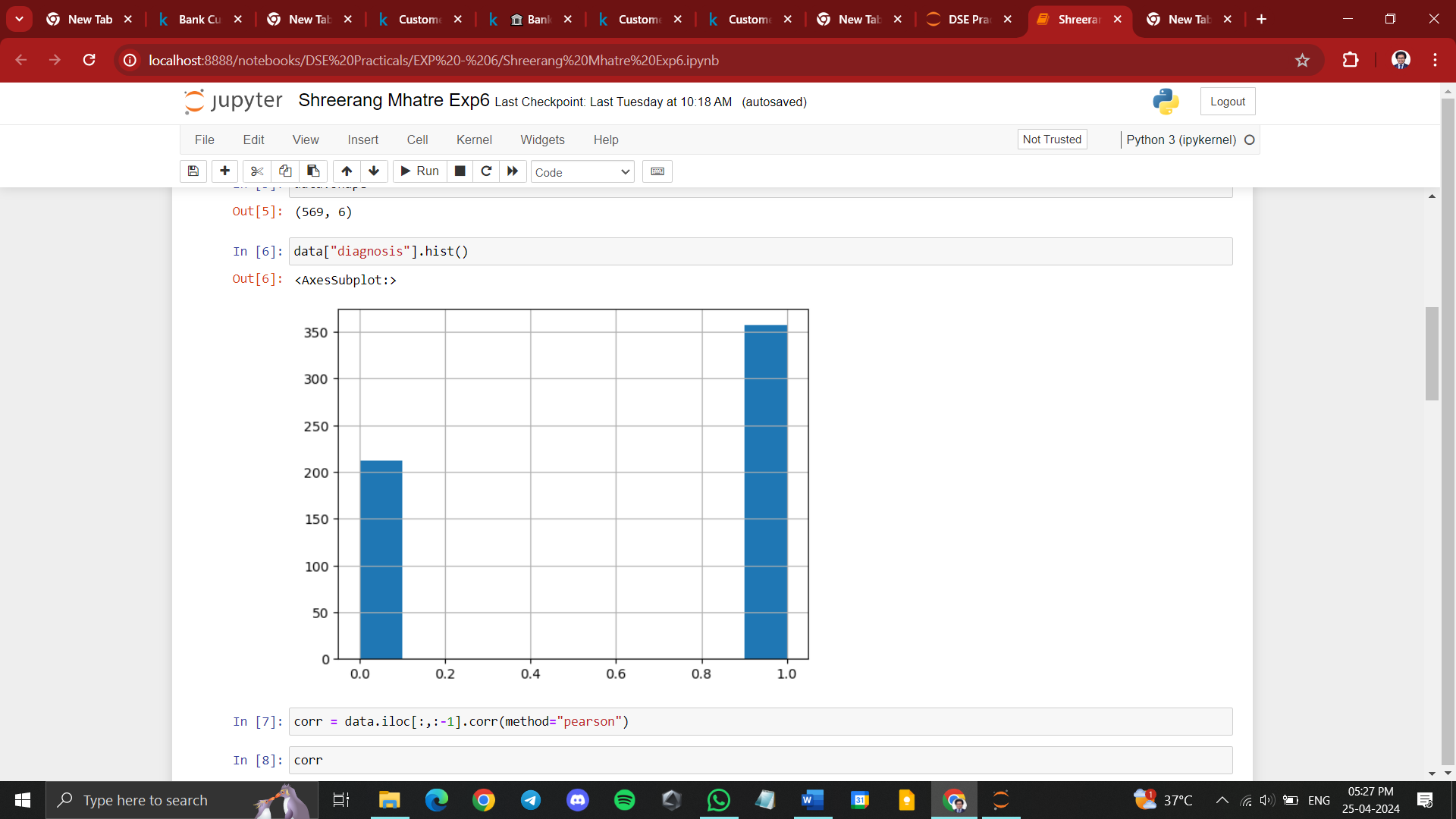
two types of cancer classes: malignant (harmful) and benign (not harmful).

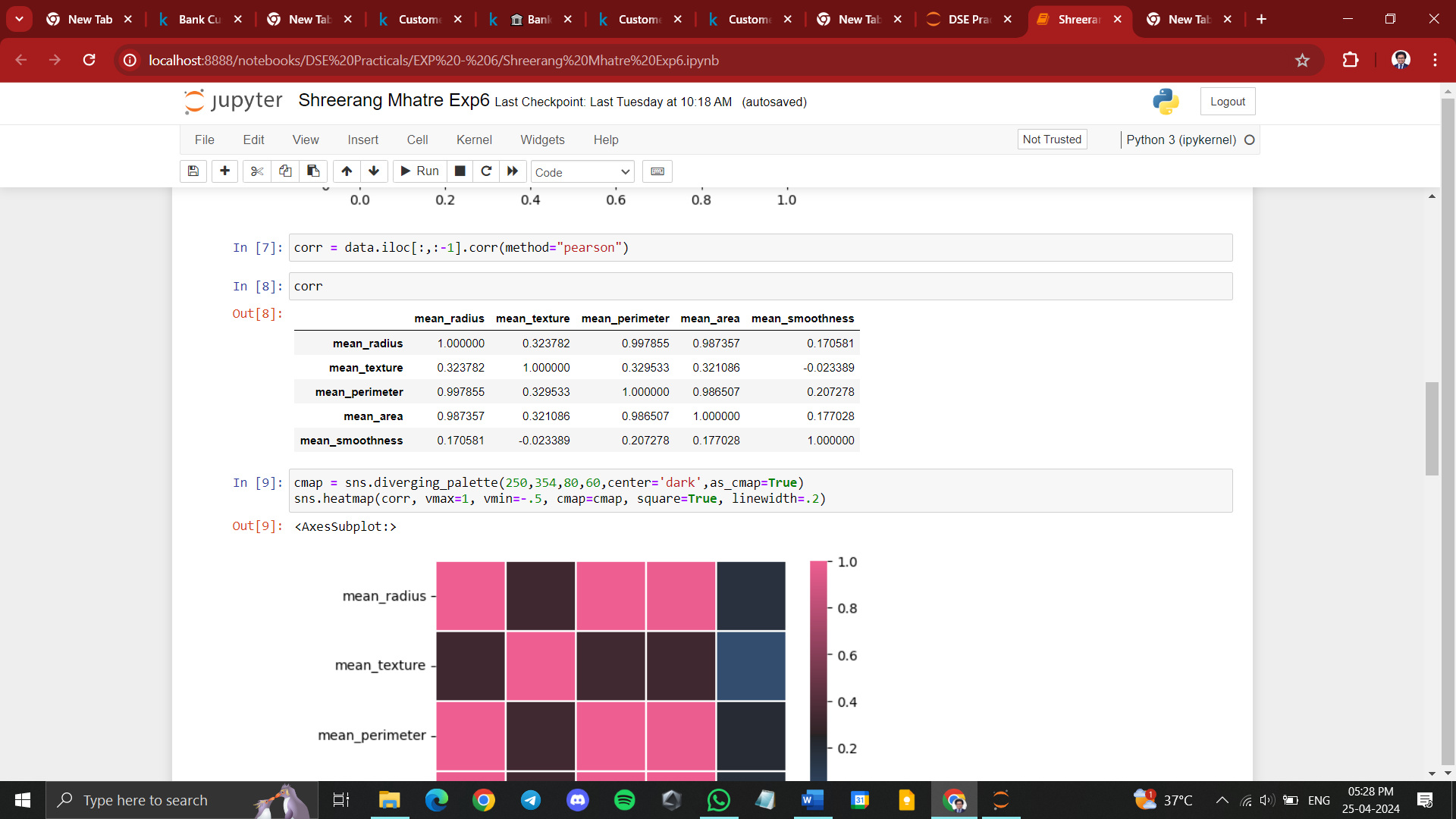
Perform following steps:

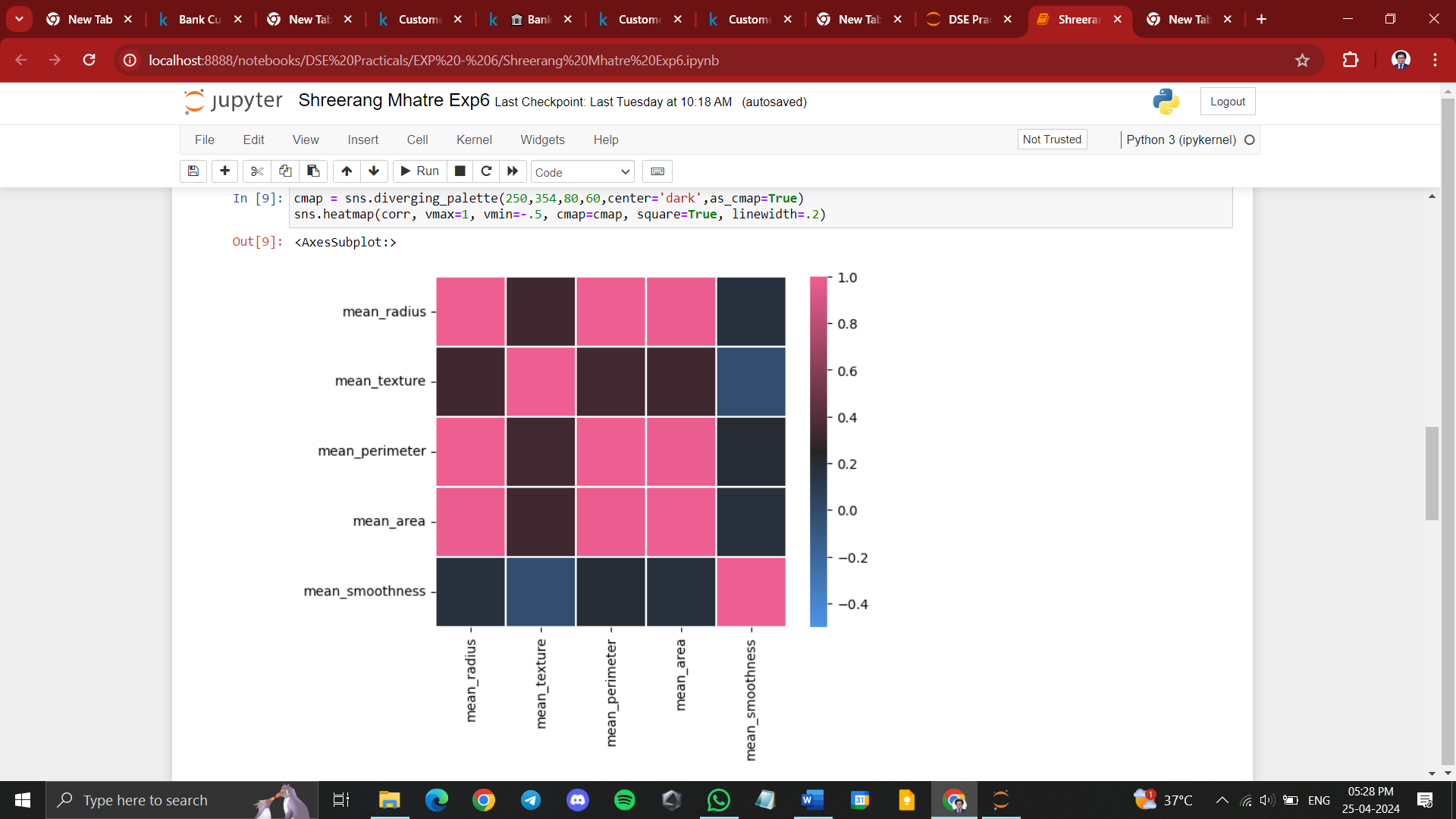
* Load the Data (The dataset is available in the scikit-learn library).
* Exploring Data: Prints features, Shape, Size, labels, head records, data types, outliers etc.
* Split the data into train and test set.
* Select the classification model.
* Fit the model on train data.
* Predict the outcome on test data.
* Evaluate the performance of model: Confusion Matrix, accuracy, F1, precision,
* Check of Tuning Hyperparameters of the model to improve performance.

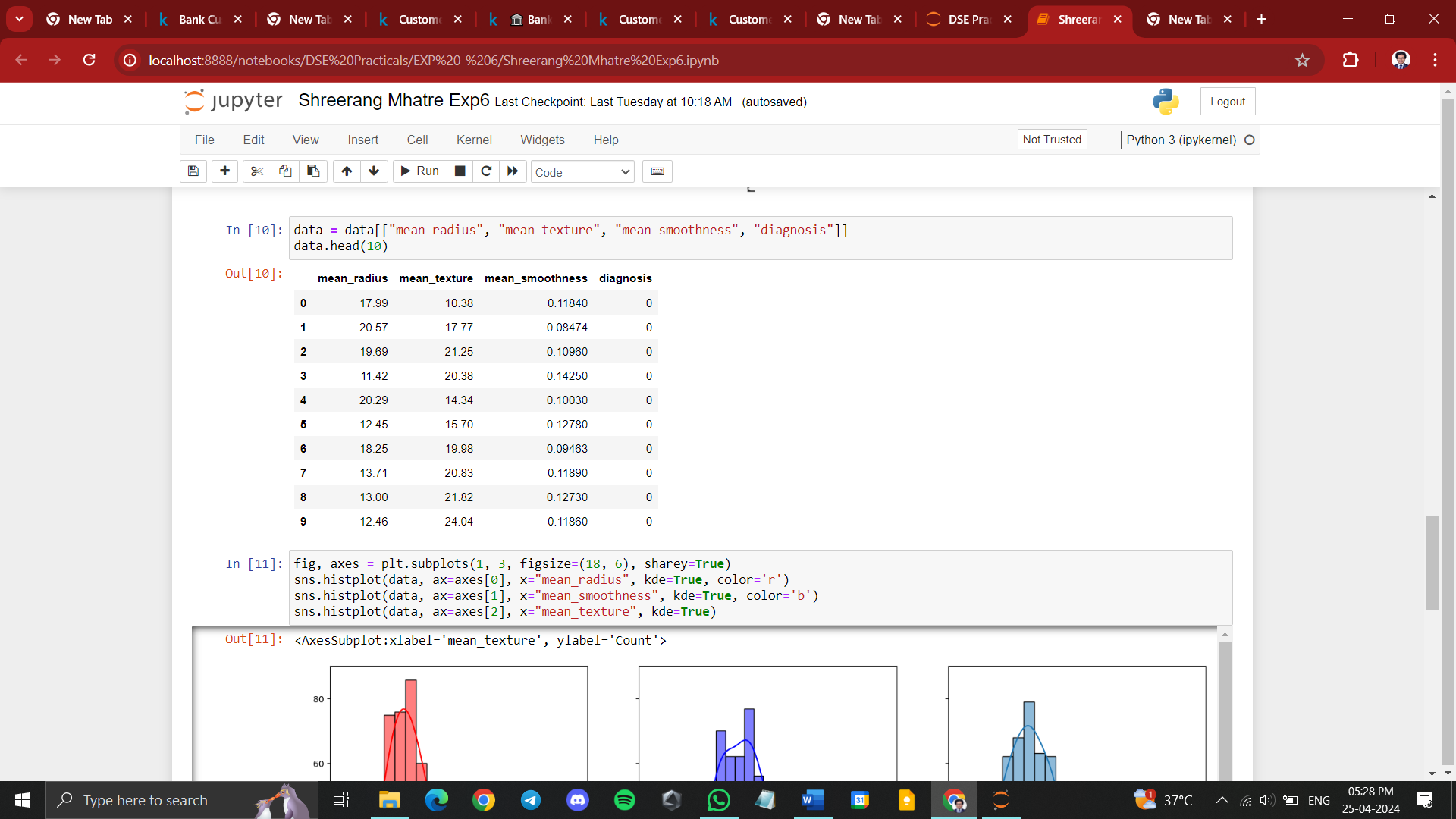
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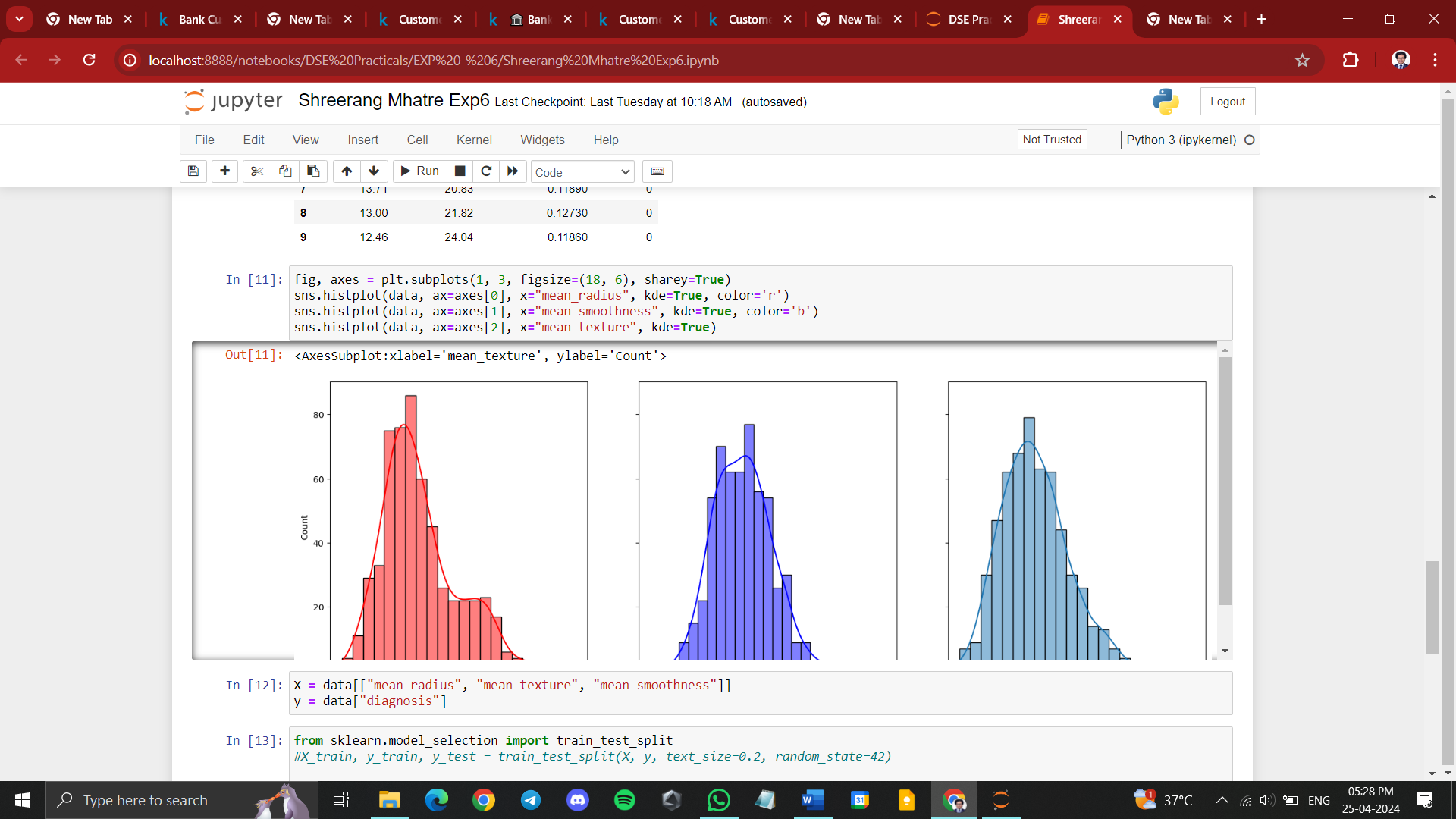
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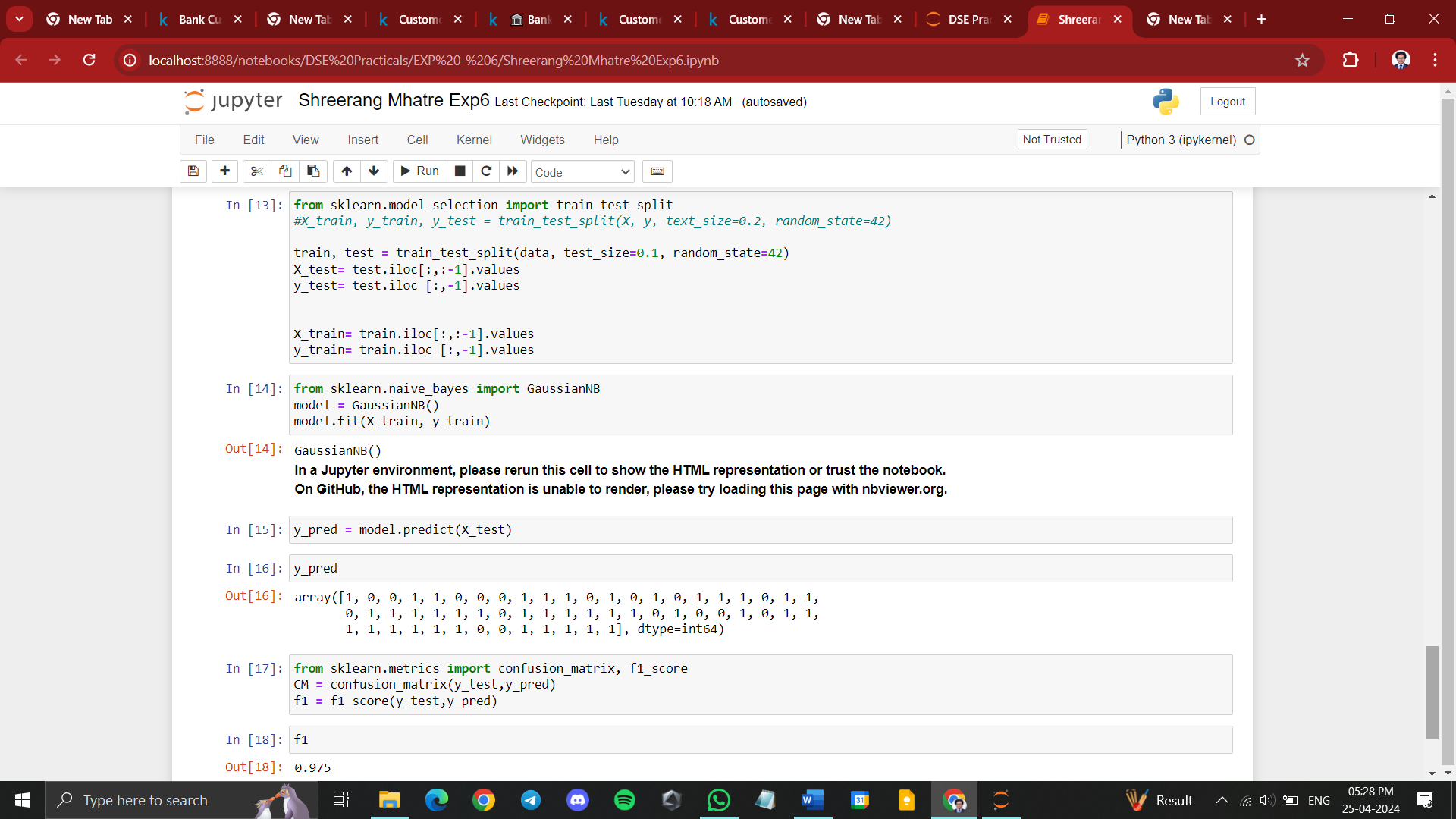
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