# Third Year B. Tech (EL & CE)

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

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**Roll No: 52 Batch: A2**

# Experiment No: 04

**Name of the Experiment**: **Understanding Statistical concepts in Python.**

**Performed on: 26/02/2024**

**Submitted on: 18/04/2024**

**Problem Statement:**

The average test scores are given: test scores: 83,85,87,89,91,93,95,97,99,100. Find

Mean, Median, Variance, Standard deviation of the data. Show the information on

the bell curve.

Consider given product price data: price\_data= [13,43,54,34,40,56,34,61,34,23].

Find Range, 25th Percentile and IQR.

A person tries to analyse the last 12 months interest rate of the investment firm to

understand the risk factor for the future investment. The interest rates are:12.05, 13,

11, 18, 10, 11.5, 15.08, 21, 6, 8, 13.2, 7.5.

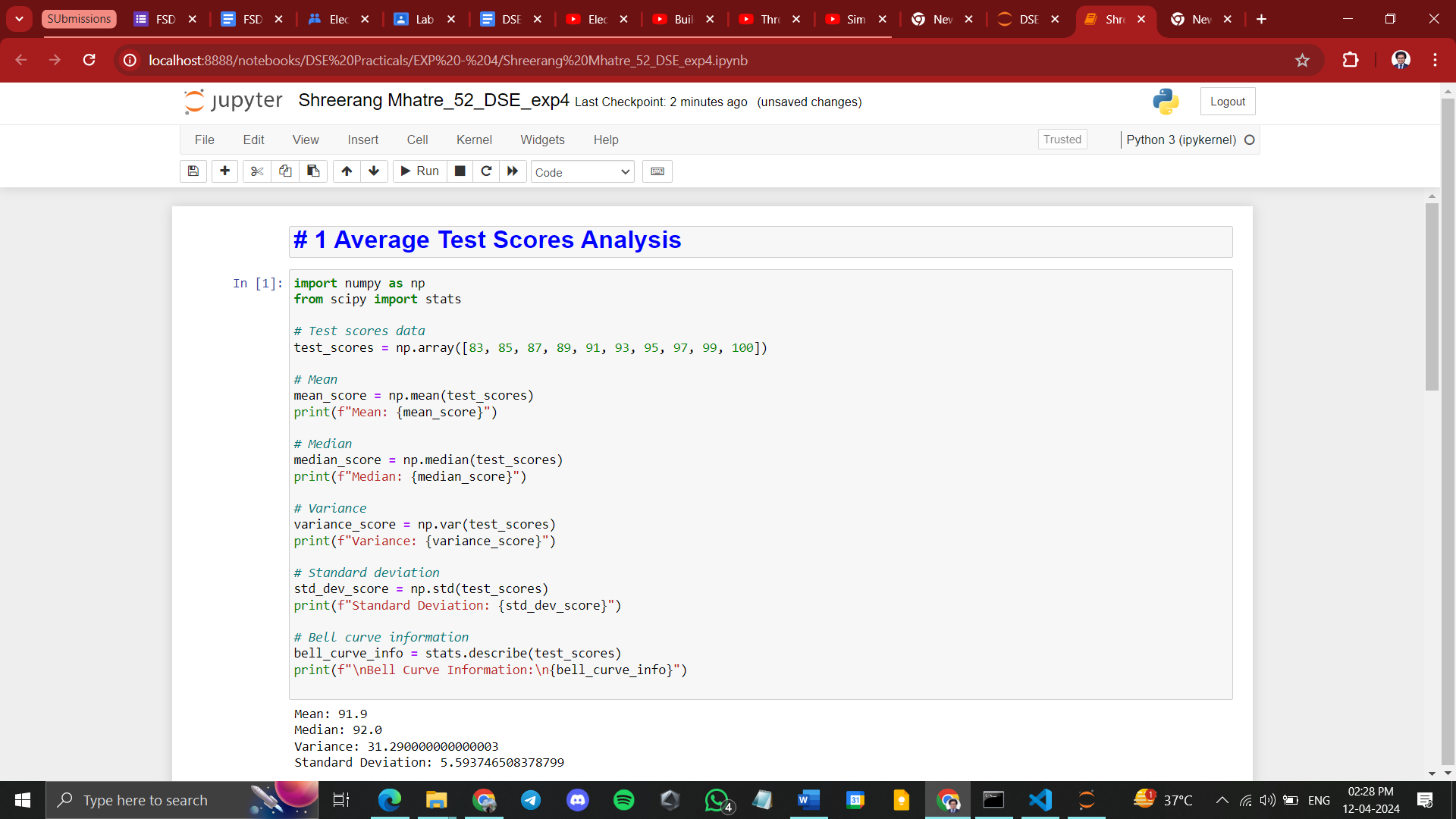
Calculate Skewness and Kurtosis and comment on it.

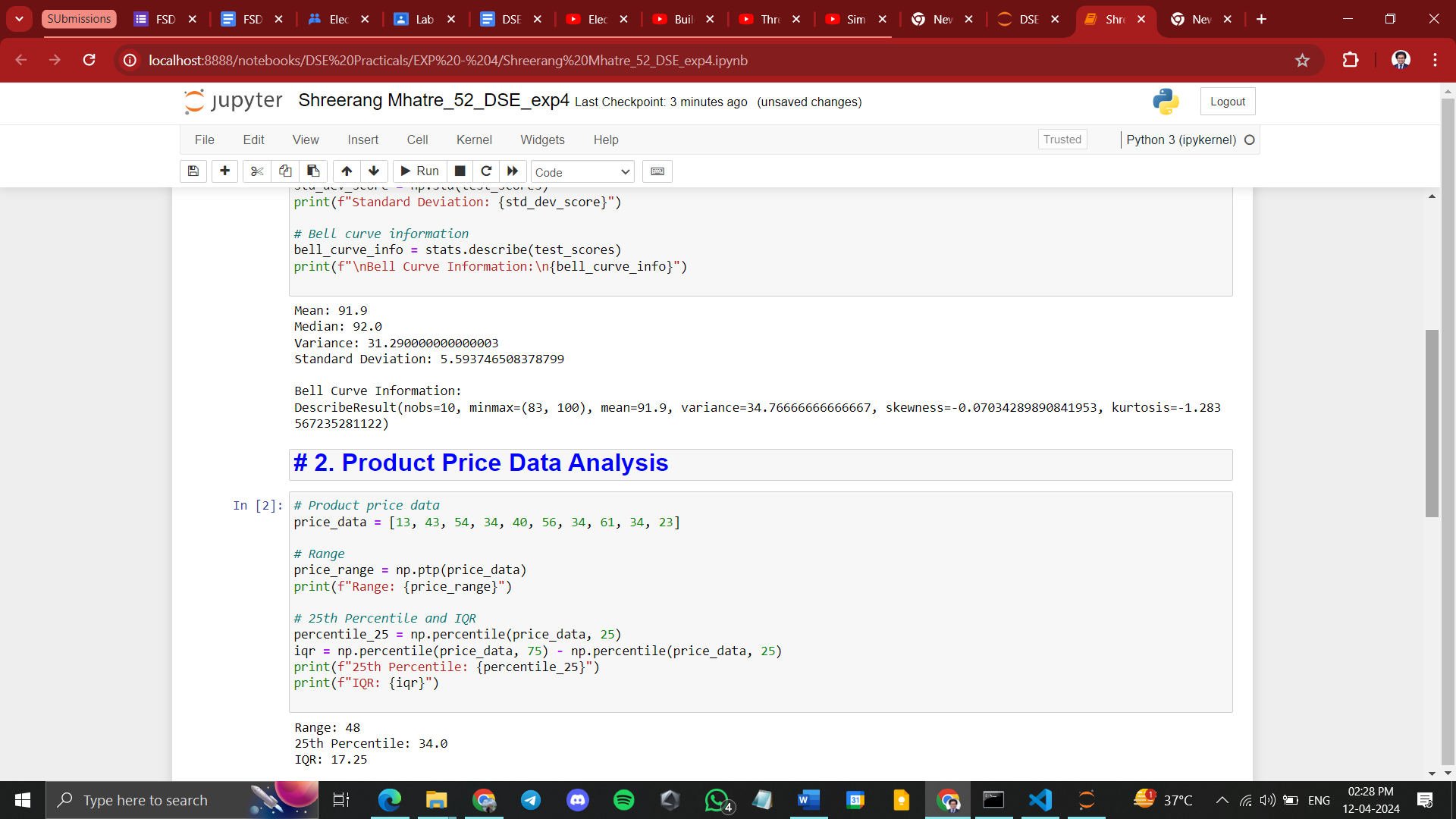
1. Hypothesis Testing

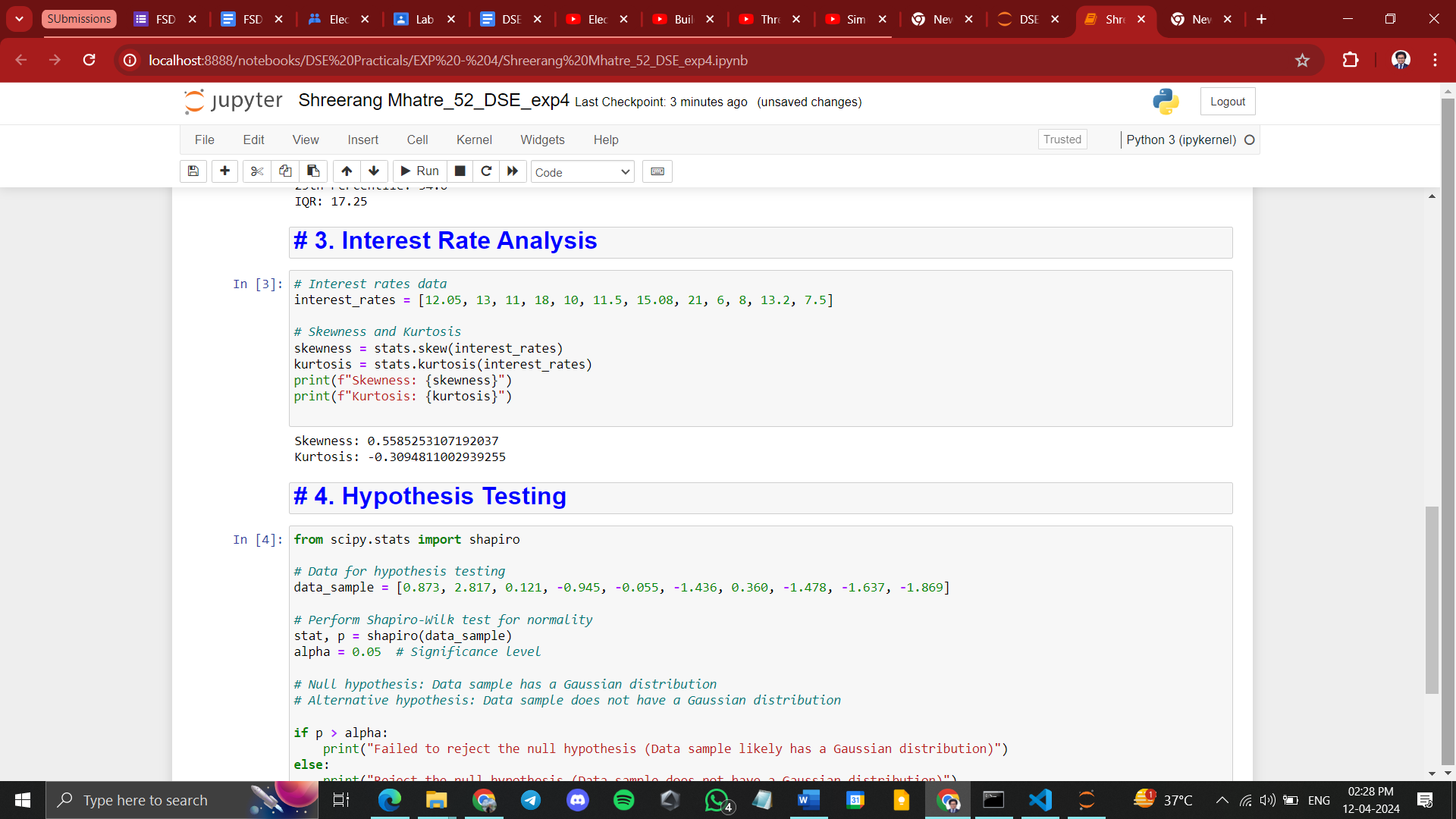
a. Consider below data and tests whether a data sample has a

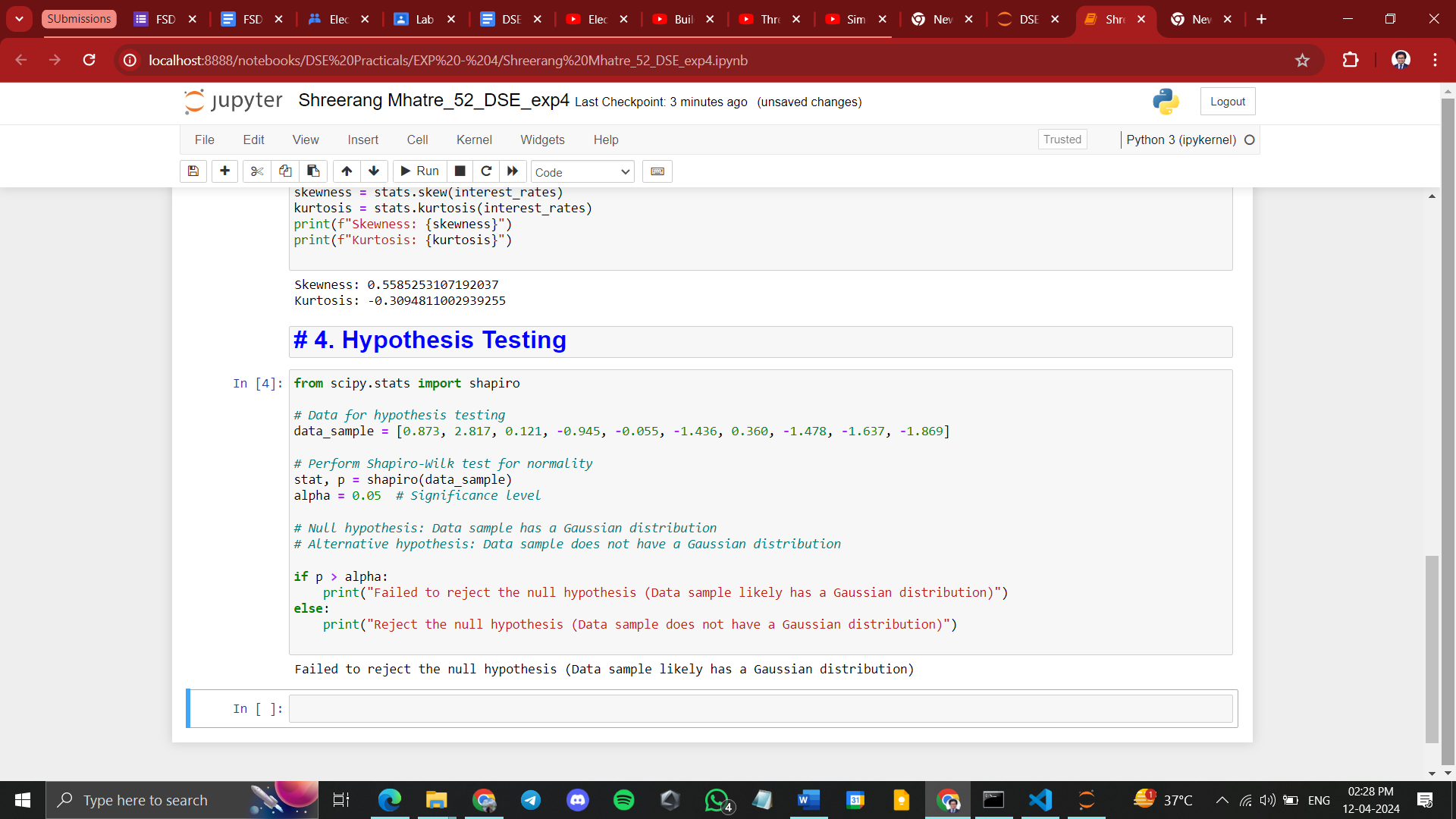
Gaussian distribution by formulating hypothesis test

**data = [0.873, 2.817, 0.121, -0.945, -0.055, -1.436, 0.360, -1.478, -1.637, -1.869]**

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