LAB Logbook

Lab 1

**Write one sentence each for any of the five Pandas classes you find interesting.**

**1. pandas.DataFrame:** The most widely used class for managing tabular data is a two-dimensional, labelled data structure with columns of perhaps various sorts.

**2. pandas.Series:** An object containing labels that resembles a one-dimensional array that is frequently used to handle a single dataset row or column.

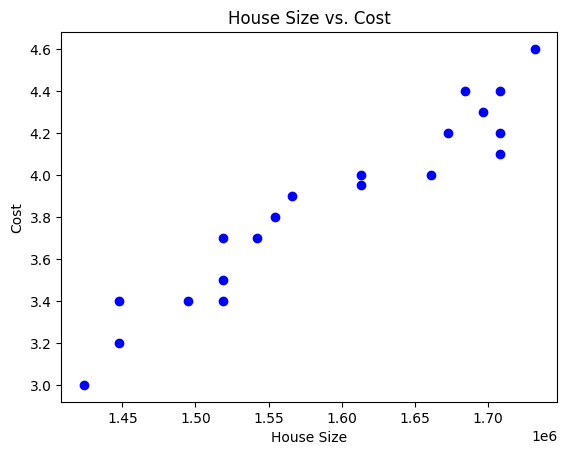
**3. pandas.Index:** Supports effective lookups and alignment operations by providing DataFrame and Series objects an unchanging pattern of labels.

**4. pandas.Timestamp:** Combines robust datetime operations with date and time functionalities to represent a single point in time.

**5. pandas.Categorical:** Improves performance and memory use by handling categorical data efficiently by storing discrete values with a set number of categories.

Lab 2

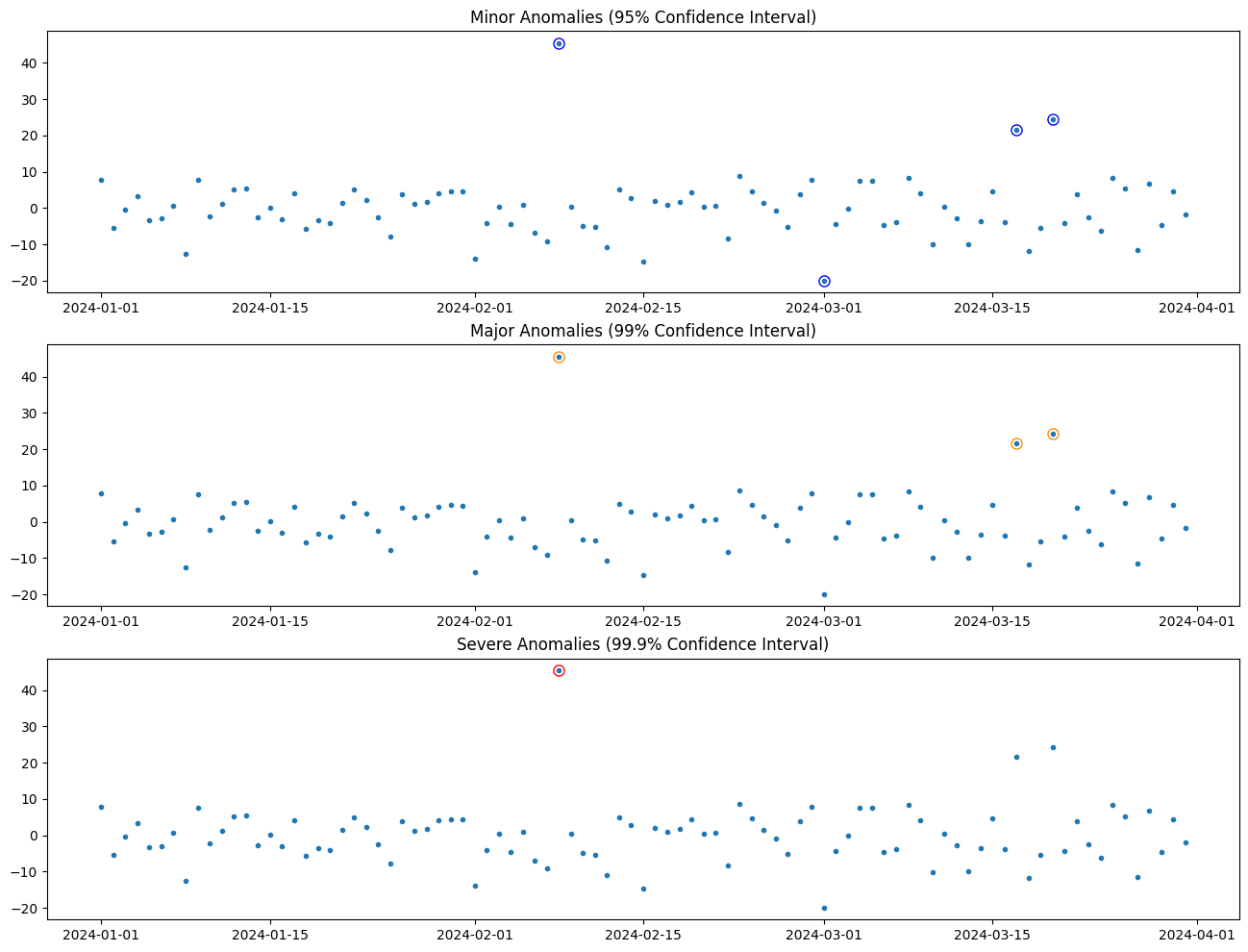
**Record the guess you made for the cost of a slightly larger house with a size of SID\*0.75. Don't worry if your guess is incorrect.**

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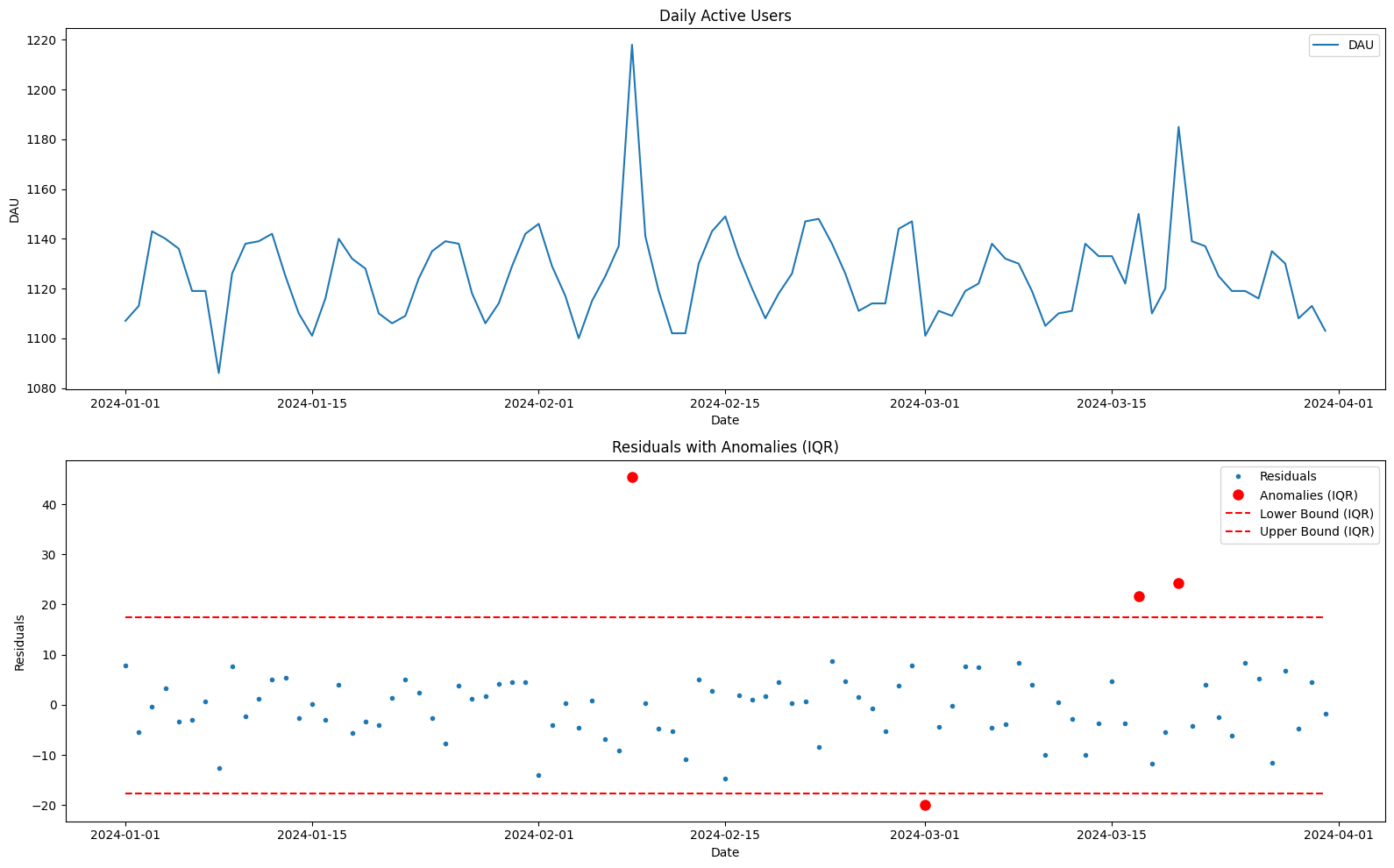
Lab 3

**Plot of anomalies using Z-score and IQR methods.**

**Z-Score:**

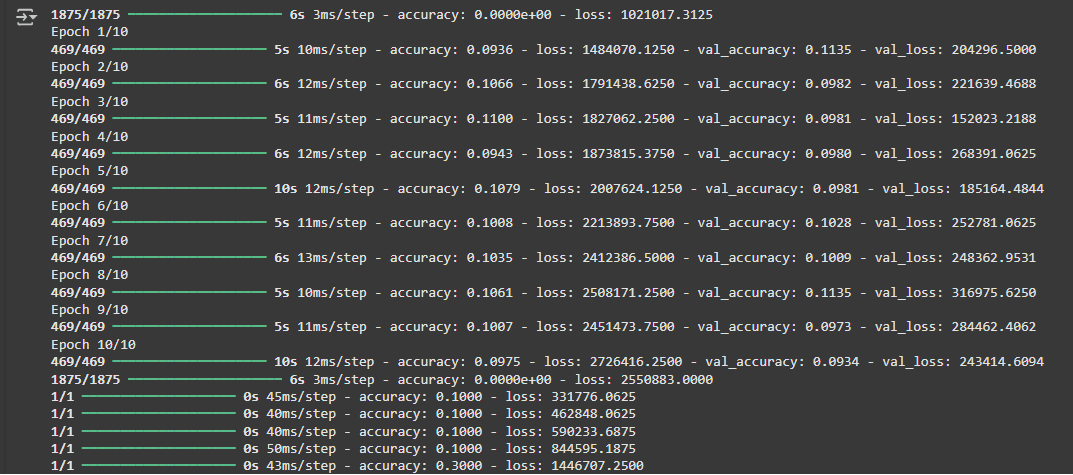
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**IQR:**

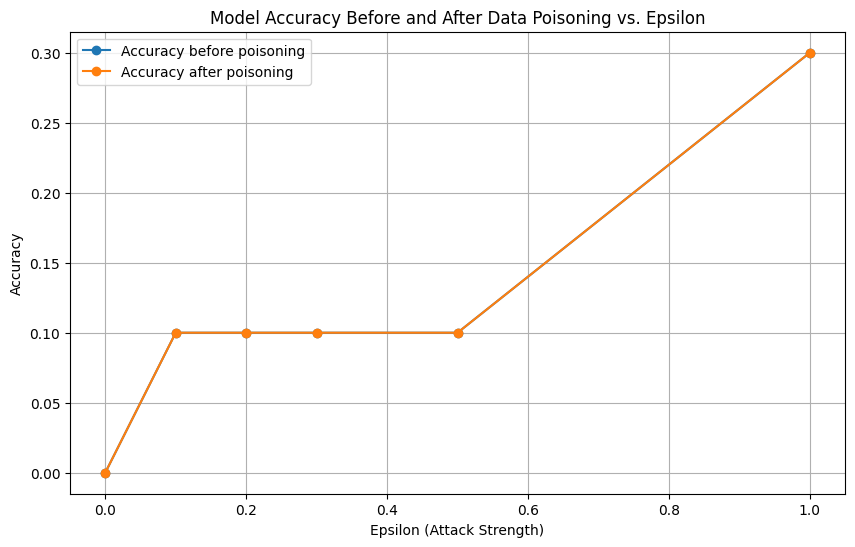
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Lab 4

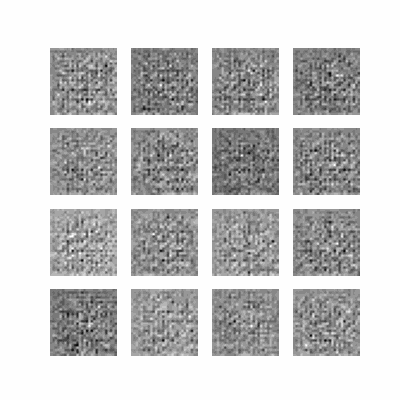
**Plot a graph showing the model's accuracy for each epsilon value. The model accuracy before and after data poisoning.**

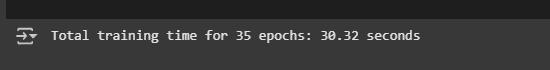


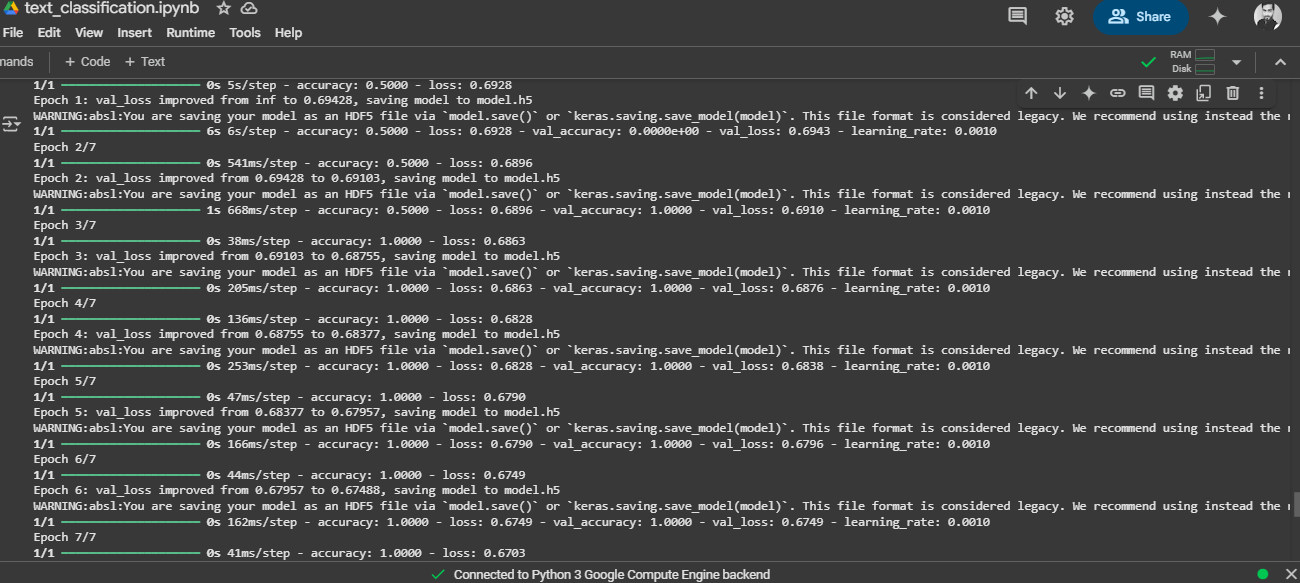
**Model accuracy Plot:**



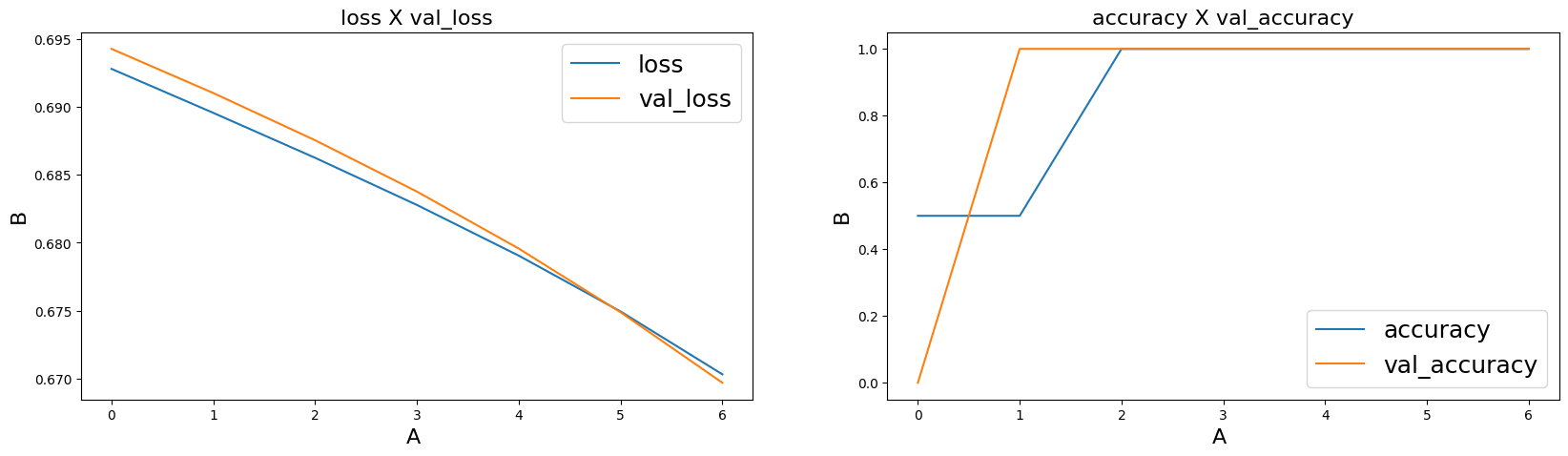
Lab 5

SID is 2372735. SO, EPOCHS = 35

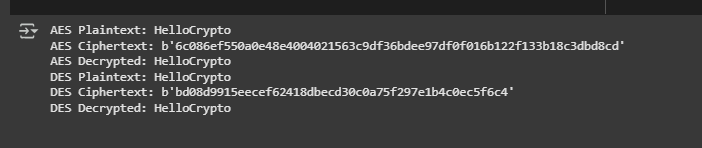


Lab 6

Provide a graph showing the history of training and validation loss based on your code. You should enhance the style of the plot to make it more visually appealing and presentable.

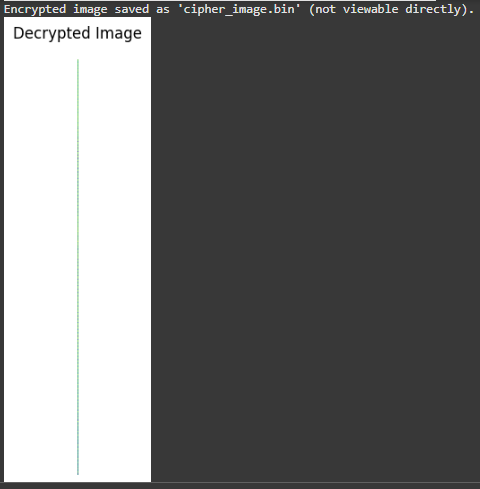


Lab 7

1. Sample of plain and cypher text for AES and DES

2. Real image and cipher image for the image of any choice using AES.





3. Explain in one word - 'YES' or 'NO' whether your encryption method for the images is good.

Yes

Lab 8

Lab 9

Lab 10

Lab 11

Lab 12