Final Project - Semester B
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The main idea of this project was to implement the methods and models we learned during the

semester
The main focus of this work is dimensions reduction

We achieved this gool by take a data with lot of different features and reduce them by using PCA

In the first two notebooks I just started to understand how to use the tools I have in my arsenal

When I reached the third notebook, I learned how to use my tools more effectively due to the nature of the assignment

I can say that the 3 notebook was the most difficult for me because it was very hard to improve the results there,

I tried several options of image size and colors

After I use stuck on 65% on grey scale and 50X50 size image I changed my image to color and 32X32 image size and that help me to improve the model even with less ddimensions compare for what I had in the gray scale

In this notebook I learn how to use most of the models and methods

Most of the work in the last notebook was to clean and organize the data form there it was much easier to modeling etc.

In this work I used the following Models and Methods:

Models:

- K Neighbors Classifier
- Logistic Regression
- Random Forest Classifier
- XGB Classifier
- Ada Boost Classifier
- Gaussian Classifier
- Voting Classifier (hard and soft)
- Bagging Classifier
- Stacking Classifier

Methods:

- Data Scaling
- Dimensionality reduction using PCA
- Grid/Randomized Search

- Pipeline
- Ensemble Methods