## **Project Documentation**

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**Topic** – Predicting Fashion MNIST classes

**Description** – In this project, I have used Convolutional Neural Network using Keras to train my model and predict the fashion mnist classes. I have trained my model with 32, 64 and 128 convolutional layers and applying relu activation function. As intructed, I applied 1000, 1000, 500 and 200 dense networks.

With 50 epochs and 1 verbose, I got an accuracy of 0.9482 on training set and 0.9274 on validation data.



I plotted a graph of epochs vs accuracy. From the graph obtained, it is observed that as the epochs increases, the accuracy gets better. But after 45 epochs, the training accuracy becomes almost constant. On the other hand, the validation accuracy first increases, then after about 30 epochs, it decreases. It may be due to the reason that the data on which it is trained may be a little different from test set. Or it may be due to the fact that two images are somewhat similar.