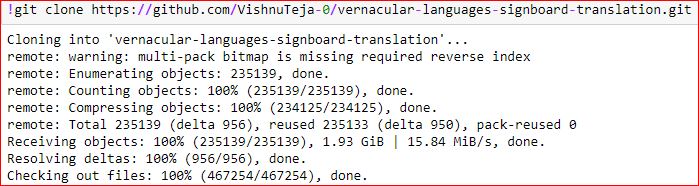
**MODEL**

**Text Detection and Recognition**:



Importing Libraries:

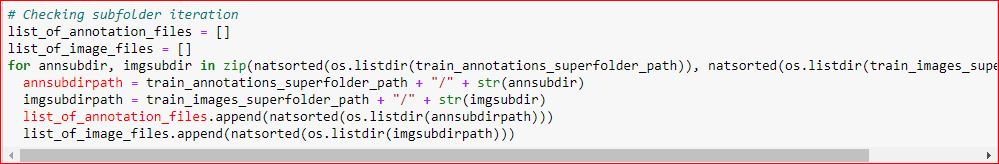


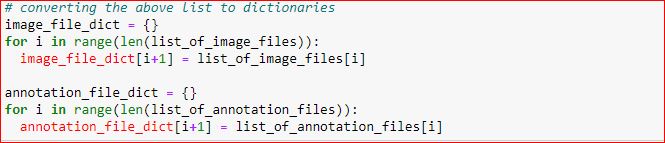


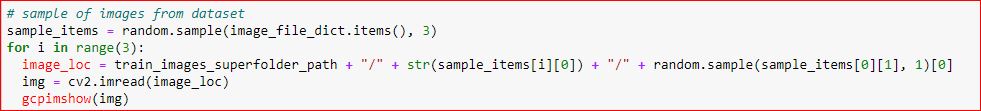
Dataset Preparation:





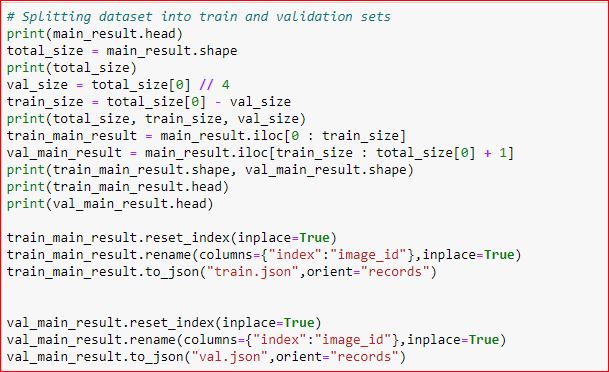




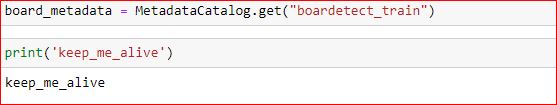


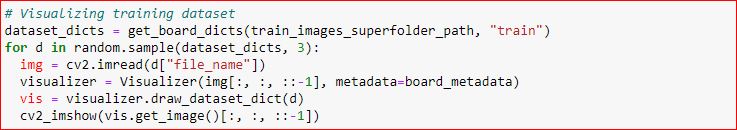




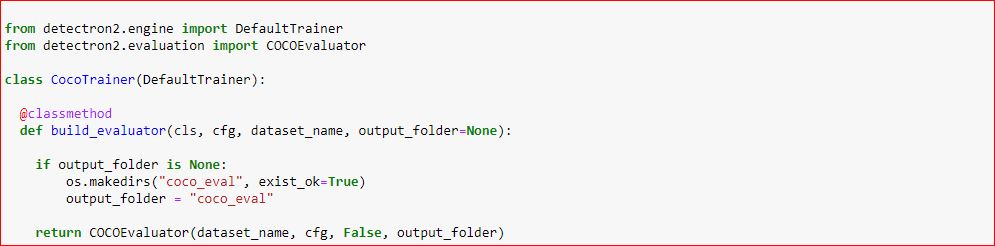


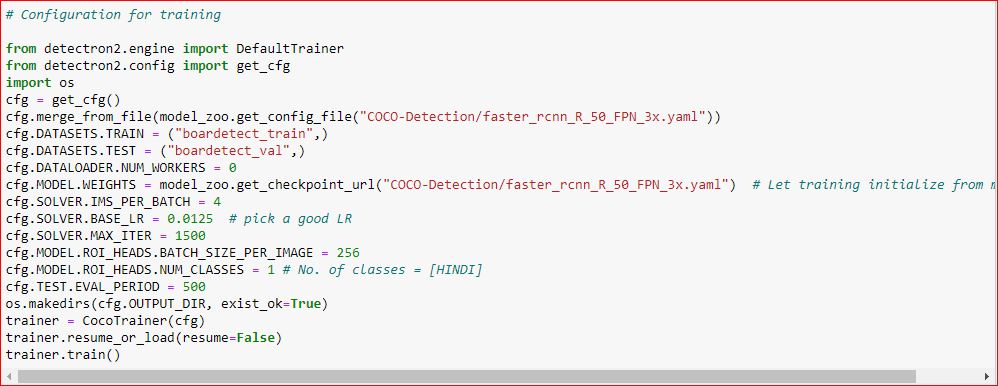


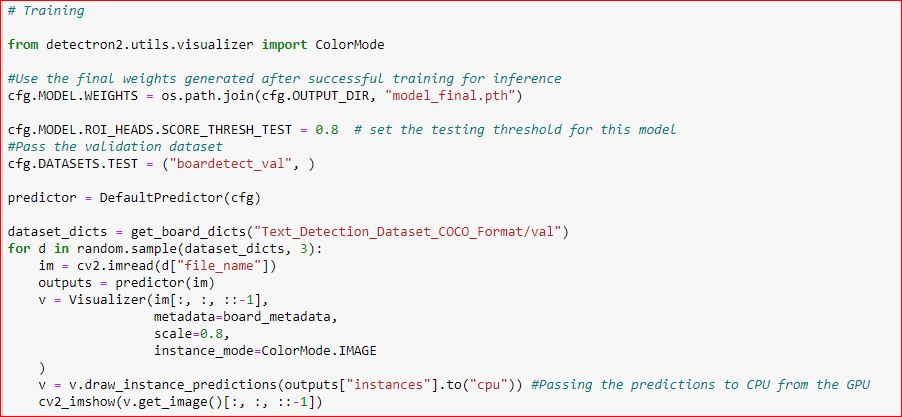




Training – Text Detection





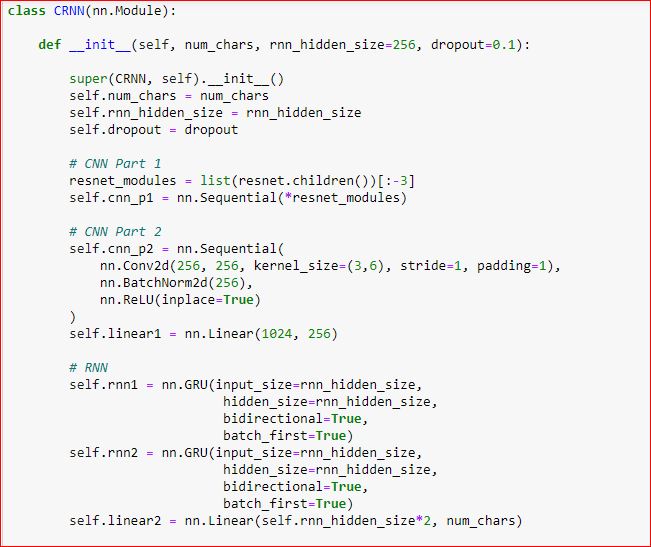


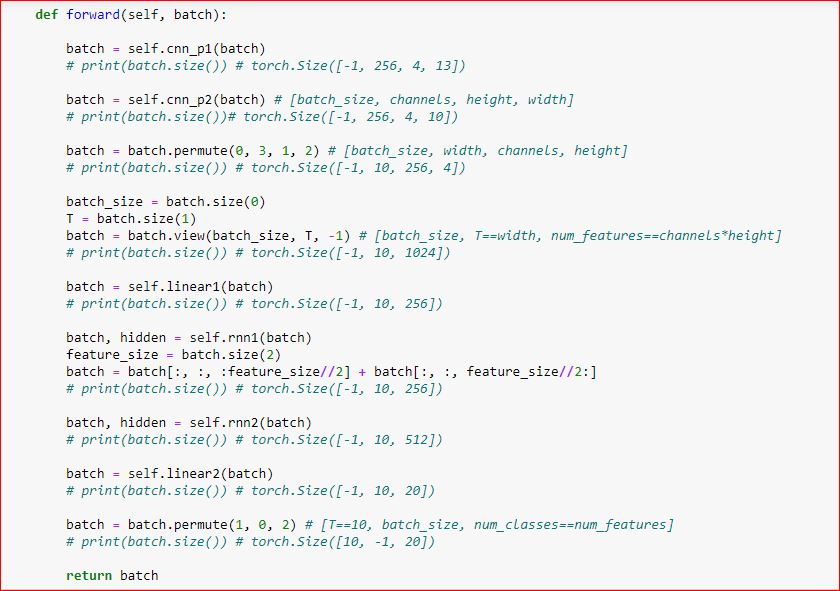
MODEL- TEXT RECOGNITION





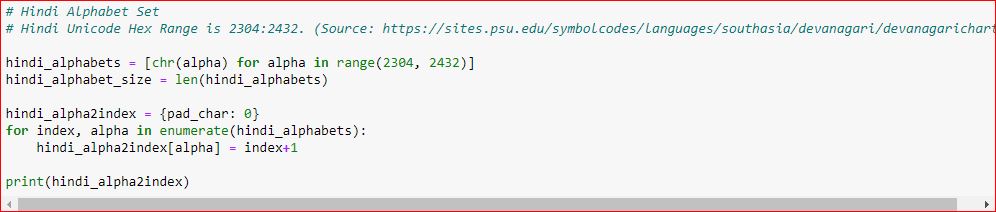




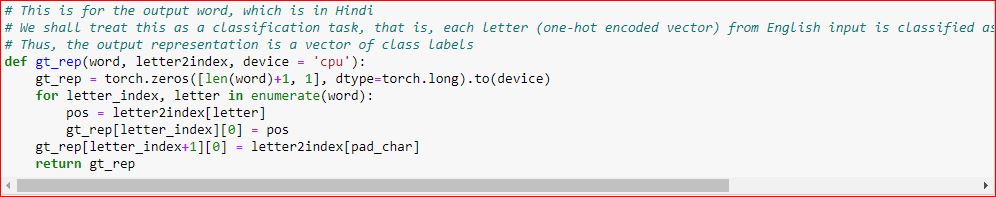


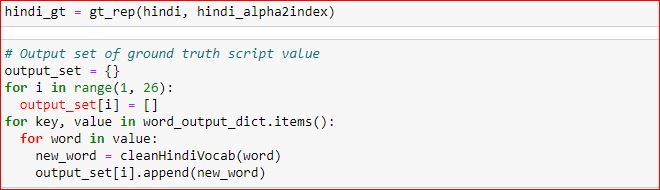


DATA PREPARATION- TEXT RECOGINITION



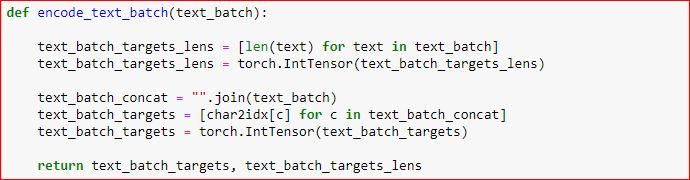


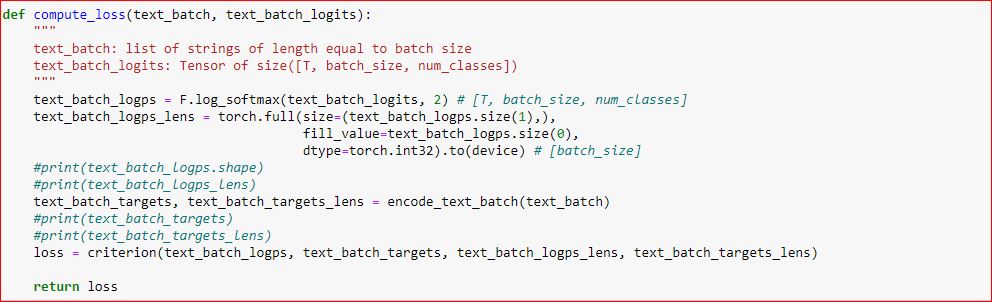




DEFINE LOSS







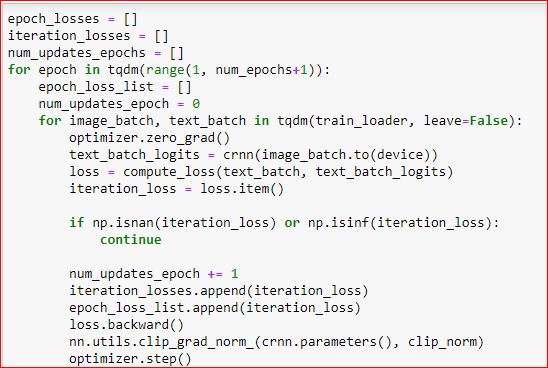


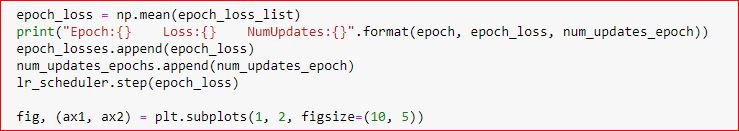
TRAINING- TEXT RECOGNITION



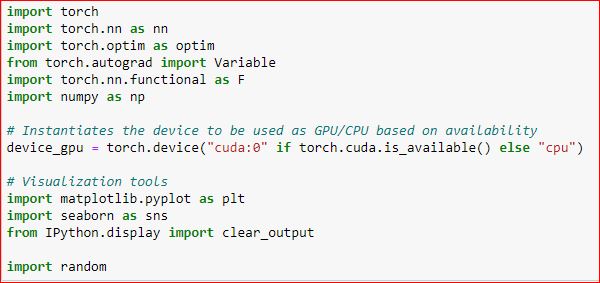




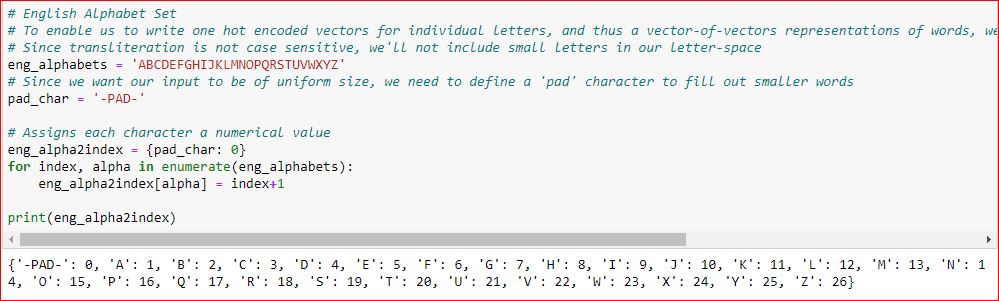


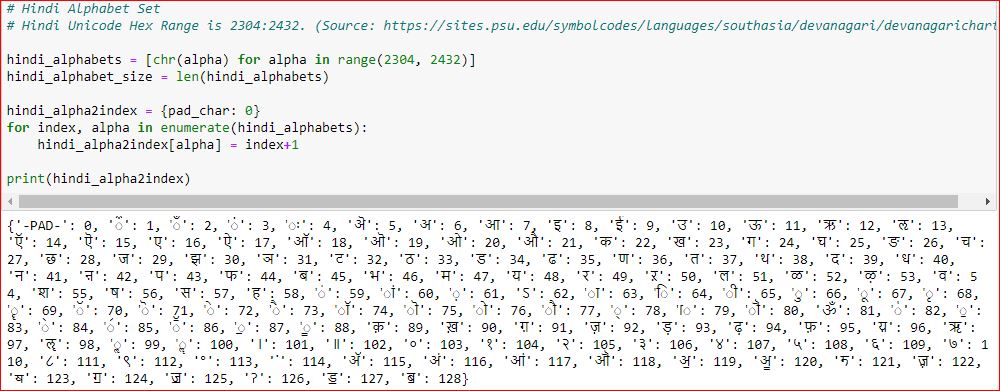


**TEXT TRANSLITERATION**

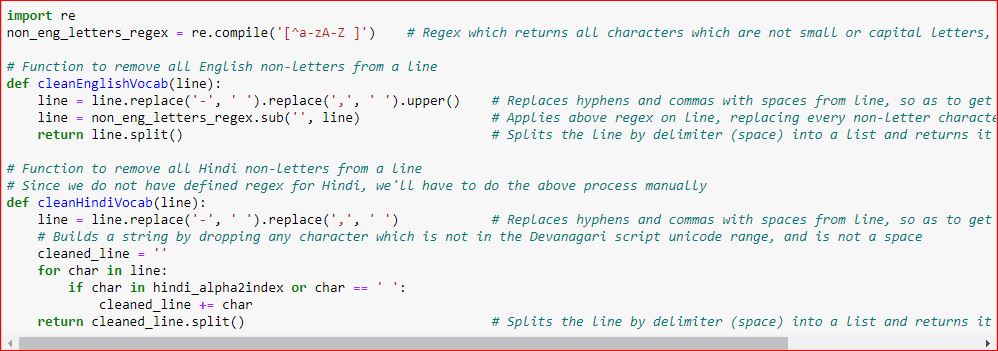


ALPHABETS SETUP

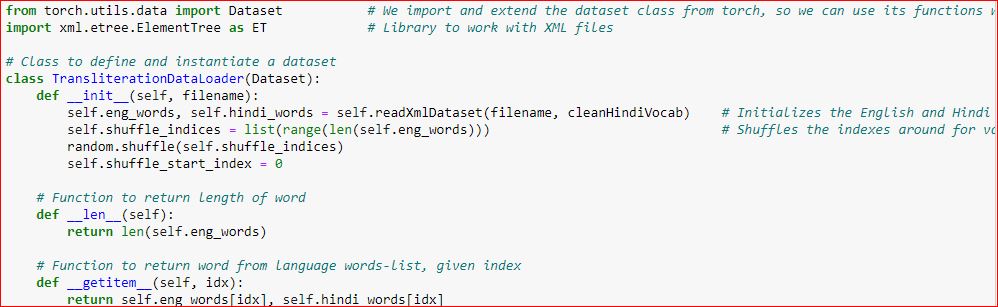


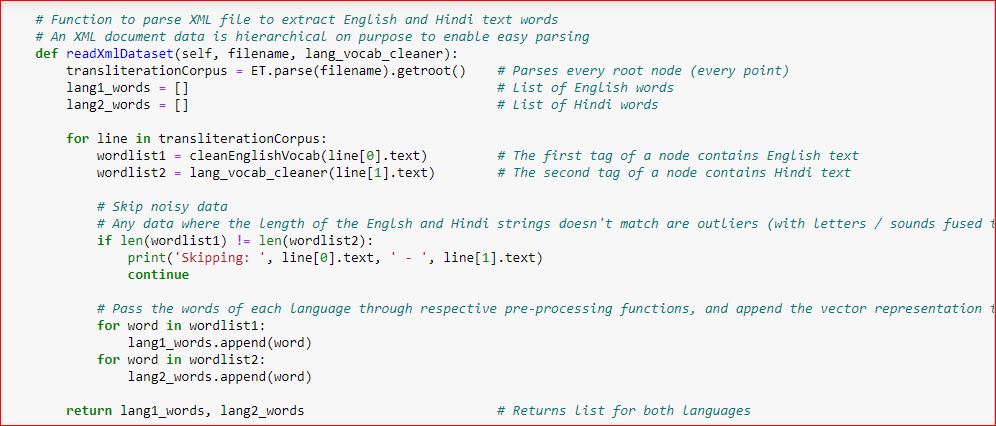


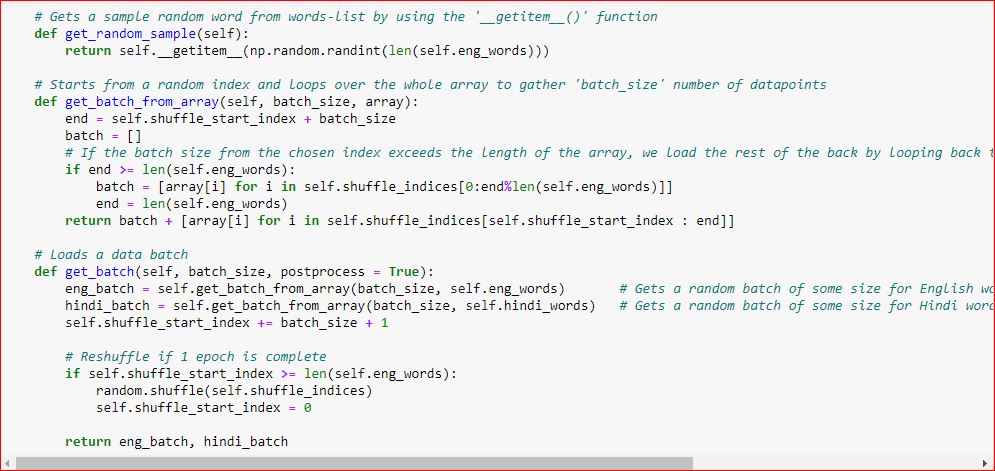
HELPER FUNCTIONS FOR DATA PRE-PROCESSING

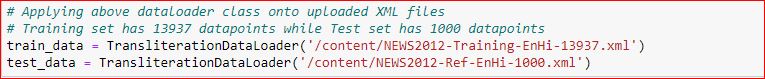


DATASET LOADING

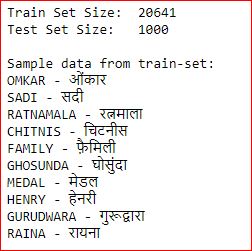




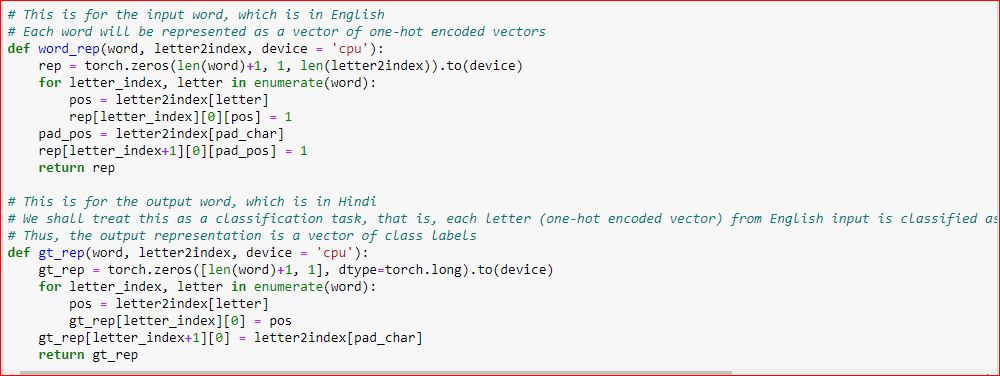


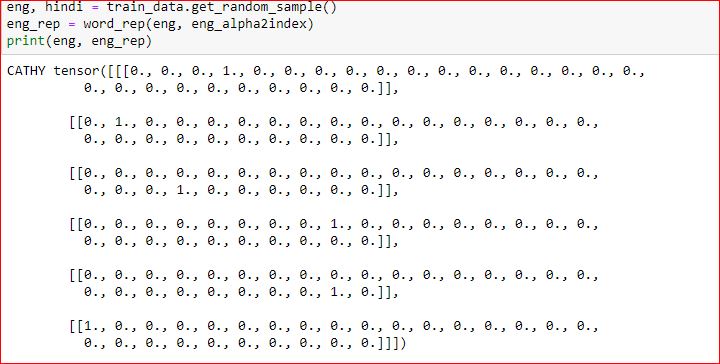


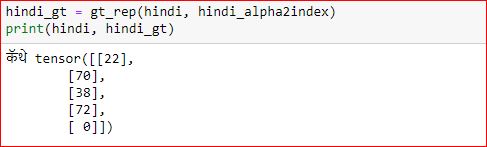




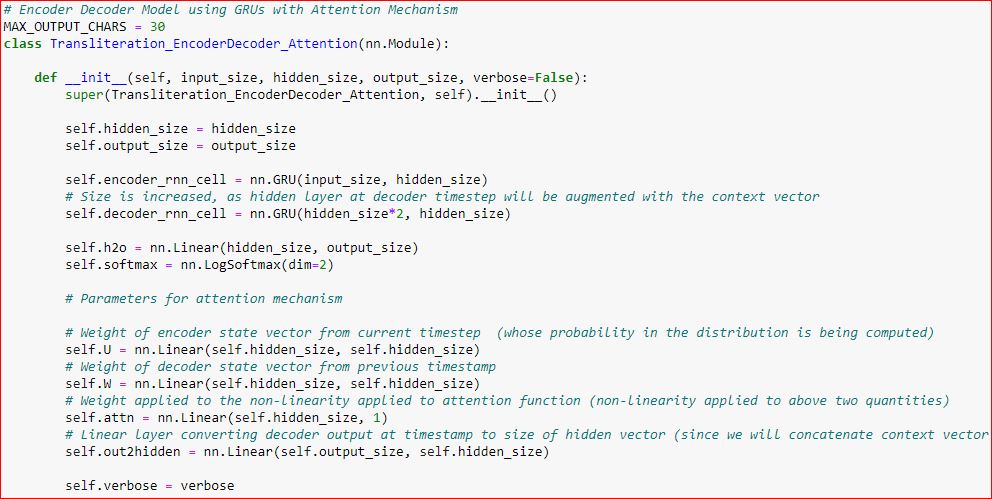
ENCODING WORDS

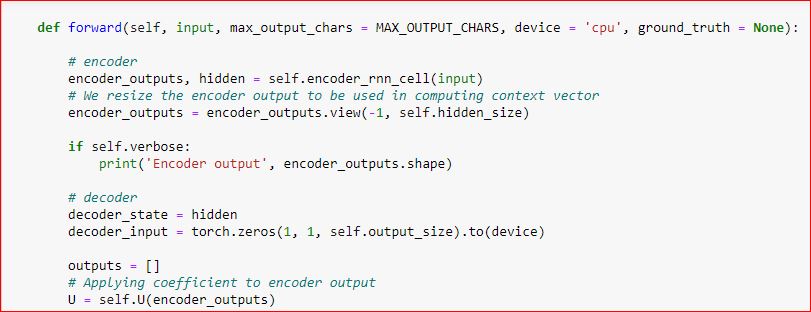


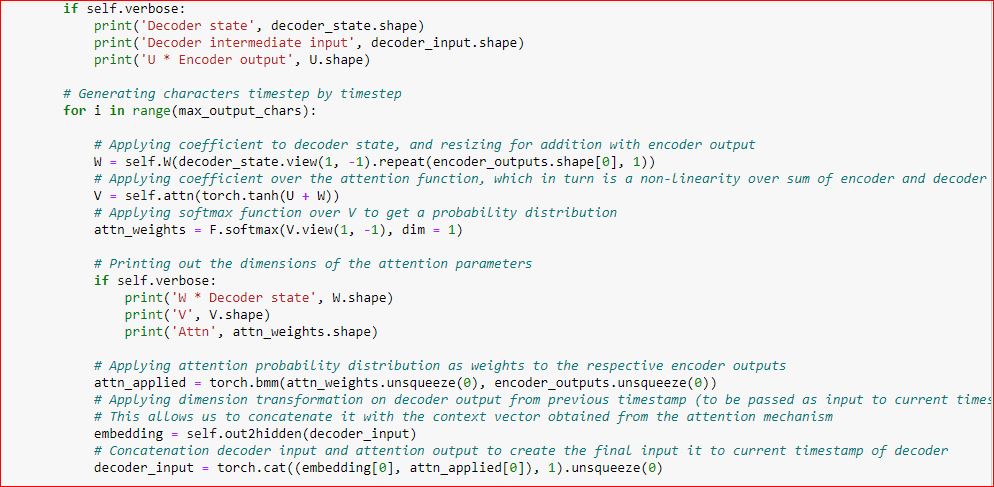


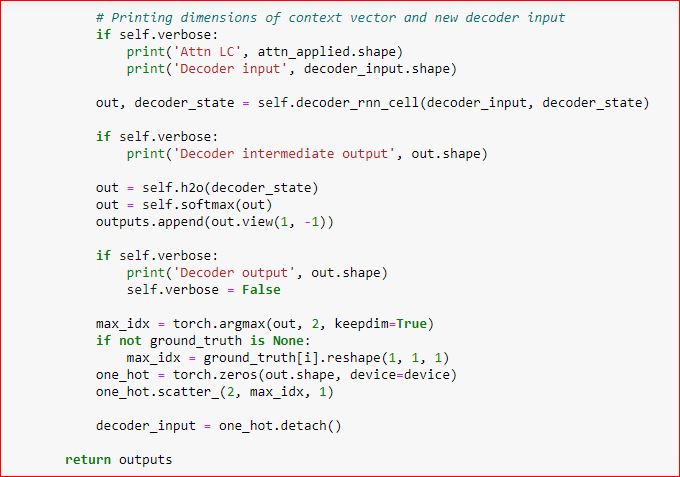


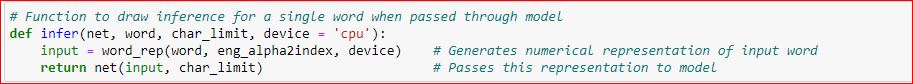
NETWORK ARCHITECTURE

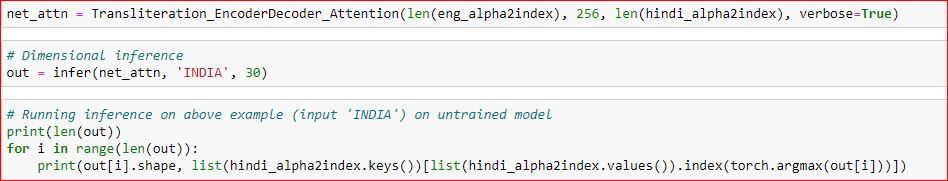






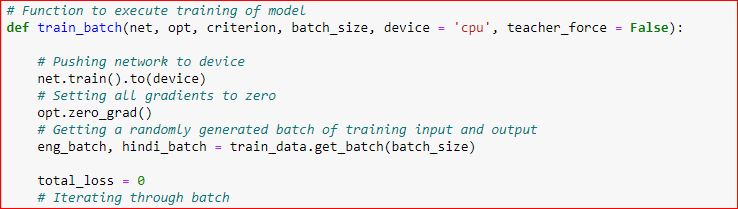


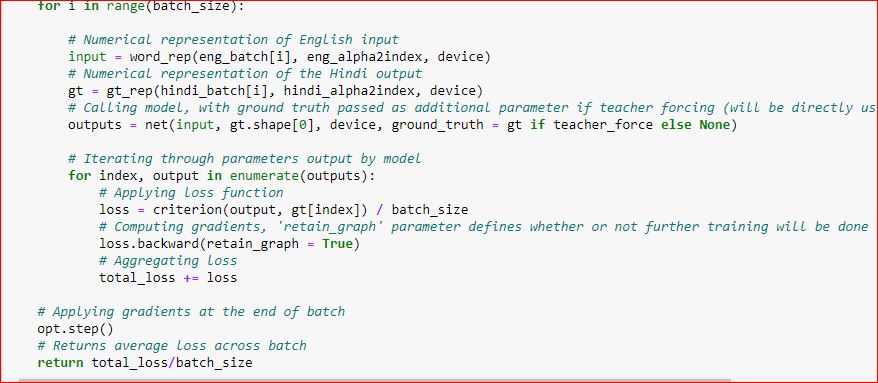




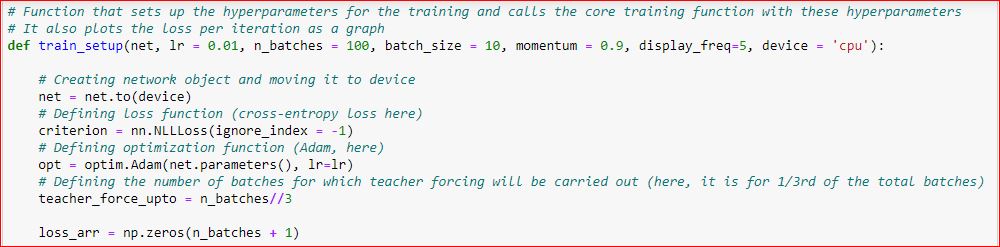
TRAINING

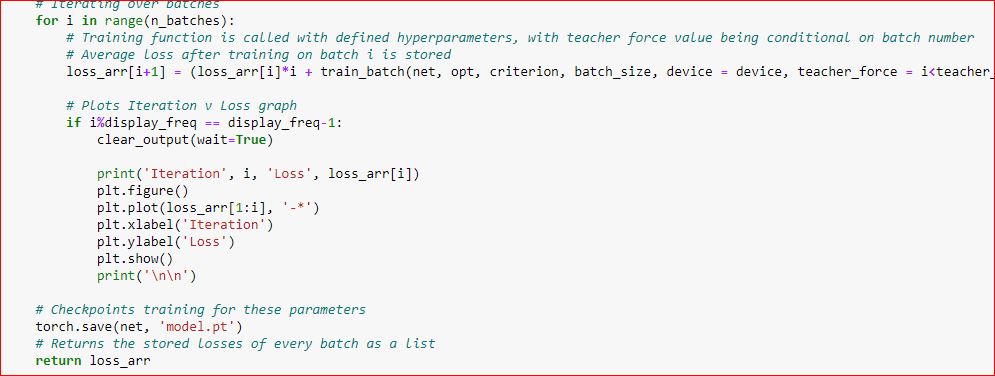
CORE TRAINER



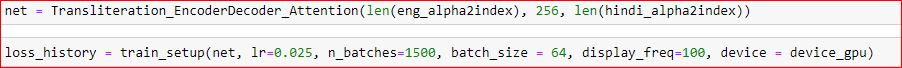


TRAINING HELPER

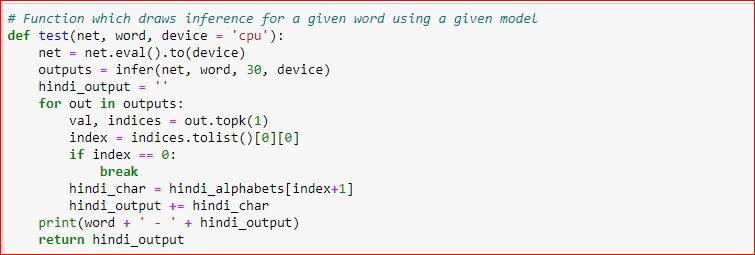


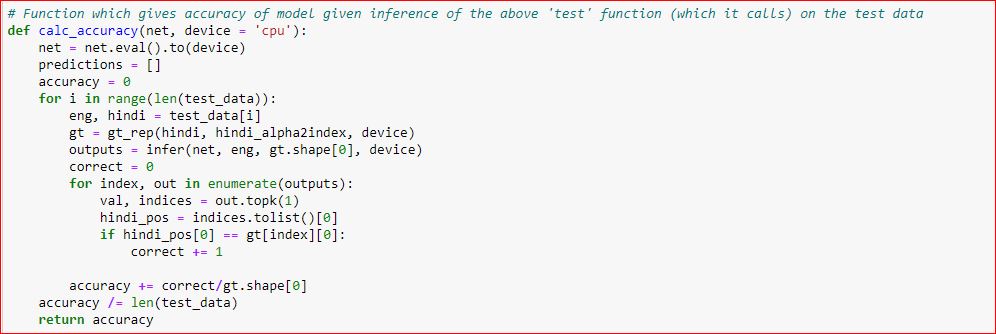


TRAINING



INFERENCE

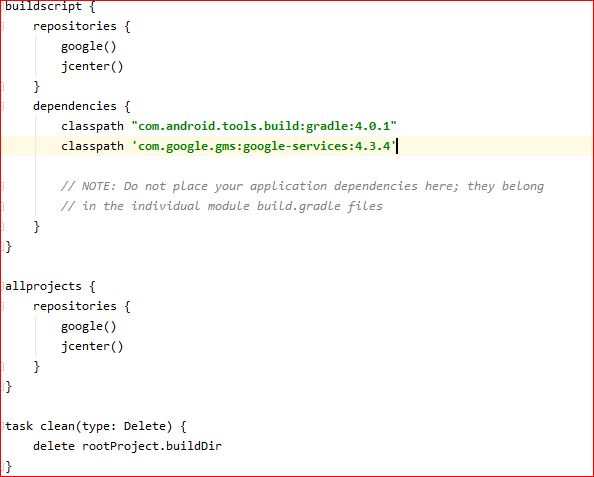




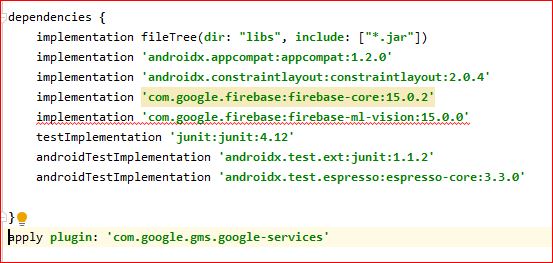


**ANDROID APP**

Build Gradle:

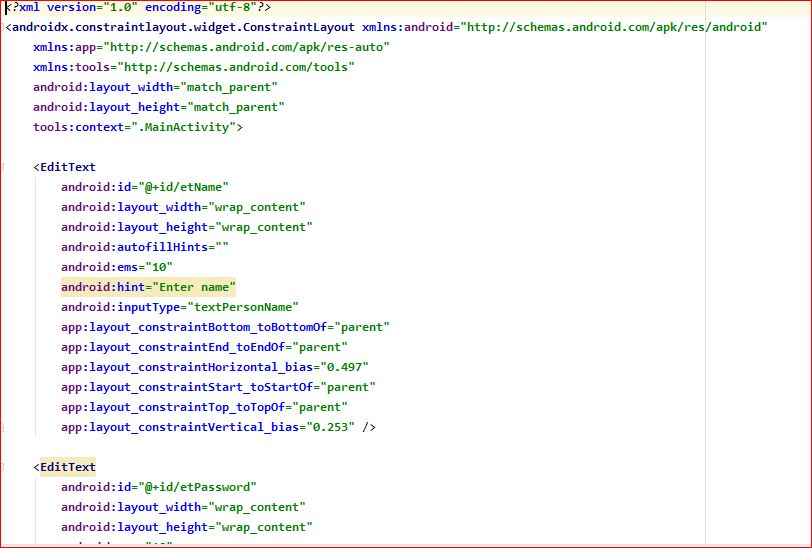


Dependencies:

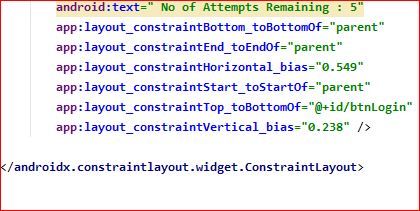


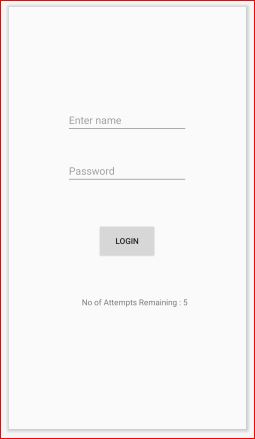
**XML Files**:

1. Main Activity









UI FOR LOGIN

1. Text Recognition Screen:

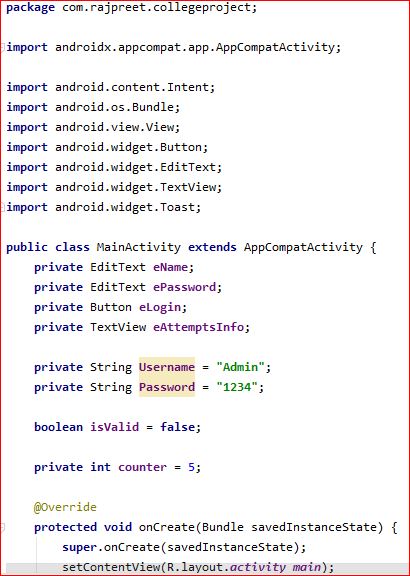


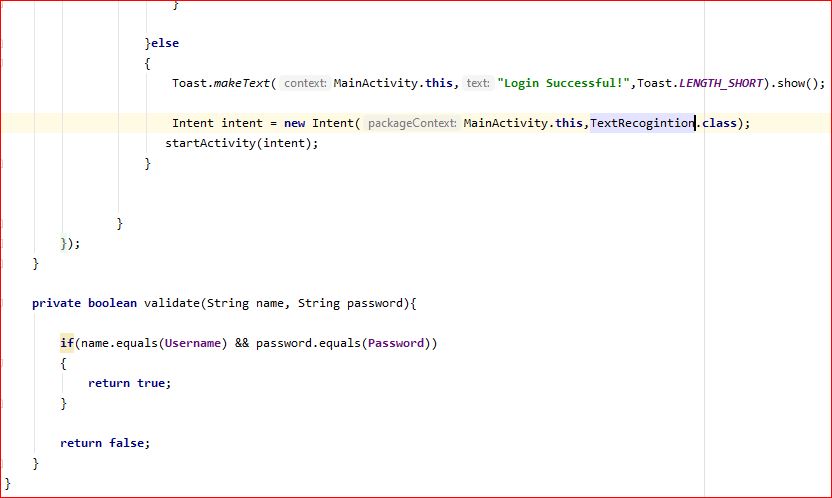




UI FOR CAPTURE IMAGE

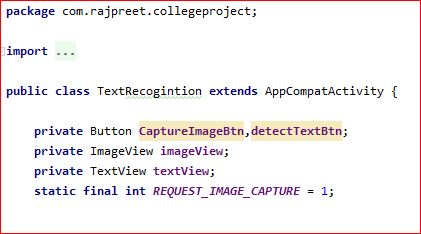
3.JAVA Code for Main Login Screen

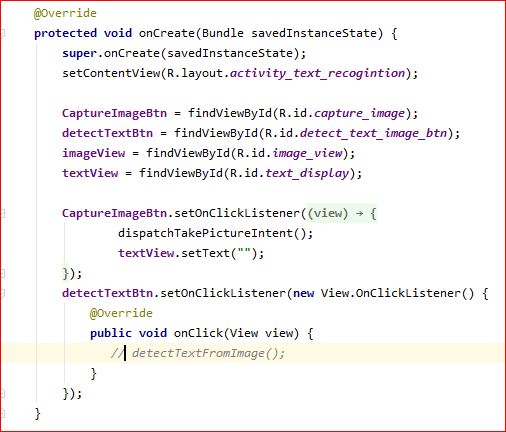




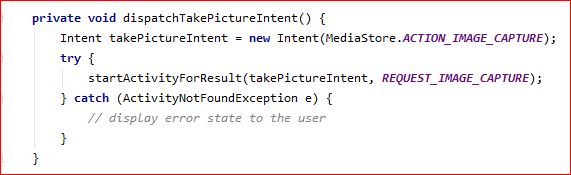
4.Text Recognition Code:

The below code is for the declaration of the buttons and the variables:



This code is to call the buttons from the xml document and initialize them :

This code is to take the permission of the user to use camera to capture the image:



Following code displays the text captured from the image and thus use it as an input to our model.

