

Low Level Design Document

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Project Overview:

The capacity of computers to detect human handwritten digits is known as handwritten digit recognition. Because handwritten digits are not flawless and can be generated with a variety of tastes, it is a difficult assignment for the machine. The solution to this problem is handwritten digit recognition, which uses an image of a digit to recognise the digit present in the image.

Solution:

Firstly, we are going to import all the modules that we are going to need for training our model. The Keras library already contains some datasets and MNIST is one of them. So, we can easily import the dataset and start working with it. The image data cannot be fed directly into the model so we need to perform some operations and process the data to make it ready for our neural network. Then we will build our CNN model which is very effective for image classification purposes. Later on, we will build the GUI on Tkinter where we can draw a digit on the canvas then recognize the digit and show the results.

Tools / Technologies / libraries Used:

1. Jupyter Notebook
2. Keras
3. Tensorflow
4. Numpy
5. Tkinter