Project Design Phase-I
Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID13012
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Domain Name	Artificial Intelligence
Project Name	A Novel Method for Handwritten Digit Recognition System
Maximum Marks	4 Marks

Solution Architecture Diagram:

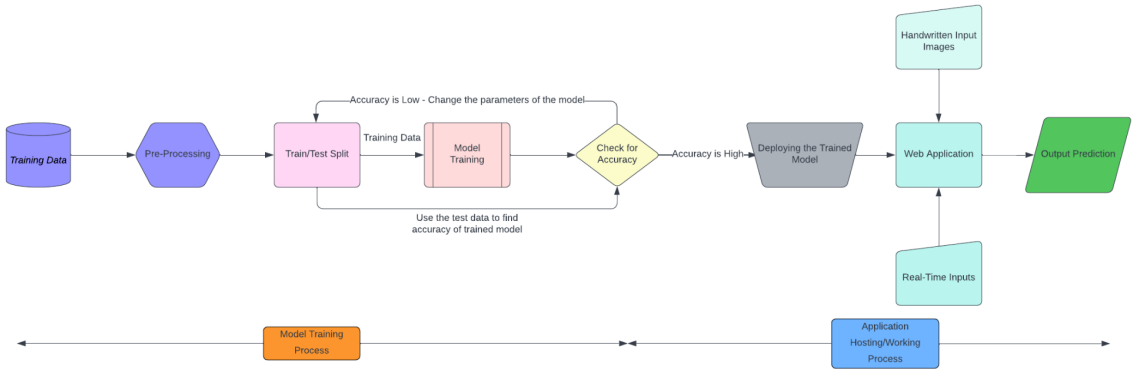

Figure 1: Architecture and data flow of Handwritten Digit Recognition application

Workflow:

- Install the TensorFlow library.
- Prepare the model's dataset by pre-processing.
- For the purpose of classifying the handwritten digits, create a neural network model.
- Plot the accuracy change over time.
- Analyze the test data to evaluate the model.
- Speculate on the model summary.

The MNIST dataset is frequently used for handwritten digit recognition. The dataset consists of 10,000 test photos and 60,000 training images. Since they most closely mirror the human brain, artificial neural networks are heavily used in image processing. The recognition of handwritten characters using the MNIST dataset is a significant project that has used neural network models. In essence, it recognises scribbled and scanned digits. In addition to detecting handwritten numbers in scanned photos, our handwritten digit identification system can now recognise handwritten numbers entered by the user using an integrated GUI.