### HELP DOCUMENT

# Packages

# Numpy

NumPy is a library for the Python programming language, adding support for large, multi-dimensional arrays and matrices, along with a large collection of high-level mathematical functions to operate on these arrays.

NumPy targets the CPython reference implementation of Python and gives functionality comparable to MATLAB. Python bindings of the widely used computer vision library OpenCV utilize NumPy arrays to store and operate on data.

#### Panda

pandas aims to be the fundamental high-level building block for doing practical, real world data analysis in Python. Additionally, it has the broader goal of becoming the most powerful and flexible open source data analysis / manipulation tool available in any language.

## Tensorflow

TensorFlow is a Python library for fast numerical computing created and released by Google. It is a foundation library that can be used to create Deep Learning models directly or by using wrapper libraries that simplify the process built on top of TensorFlow.

#### Keras

Keras is an open-source software library that provides a Python interface for artificial neural networks. Keras acts as an interface for the TensorFlow library.

Keras contains numerous implementations of commonly used neural-network building blocks such as layers, objectives, activation functions, optimizers, and a host of tools to make working with image and text data easier to simplify the coding necessary for writing deep neural network code. In addition to standard neural networks, Keras has support for convolutional and recurrent neural networks.

## **PROCEDURE**

- 1. Since the code is running on google colab, we can execute the code by running all the cells one after the other.
- 2. Initially, upload the data set onto the drive.
- 3. In the second cell, to import the dataset which is in our drive, we have to copy the path of the dataset and provide it there.
- 4. Then run the cells and get the output.