PROJECT OBJECTIVES AND PROJECT FLOW

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Project Objectives

By the end of this project you will:

- Know fundamental concepts and techniques of the Artificial Neural Network and Convolution Neural Networks
- Gain a broad understanding of image data.
- Work with Sequential type of modeling
- Work with Keras capabilities
- Work with image processing techniques
- know how to build a web application using the Flask framework.

Project Flow:

- The user interacts with the UI (User Interface) to upload the image as input

- The uploaded image is analyzed by the model which is integrated
- Once the model analyses the uploaded image, the prediction is showcased on the UI

To accomplish this, we have to complete all the activities and tasks listed below

- Understanding the data.
  - Importing the required libraries
  - Loading the data
  - Analyzing the data
  - Reshaping the data.
  - Applying One Hot Encoding
- Model Building
  - Creating the model and adding the input, hidden and output layers to it
  - Compiling the model
  - Training the model
  - Predicting the result
  - Testing the model by taking image inputs
  - Saving the model
- Application Building
  - Create an HTML file
  - Build Python Code