Indian Currency Notes Classifier For Blind People

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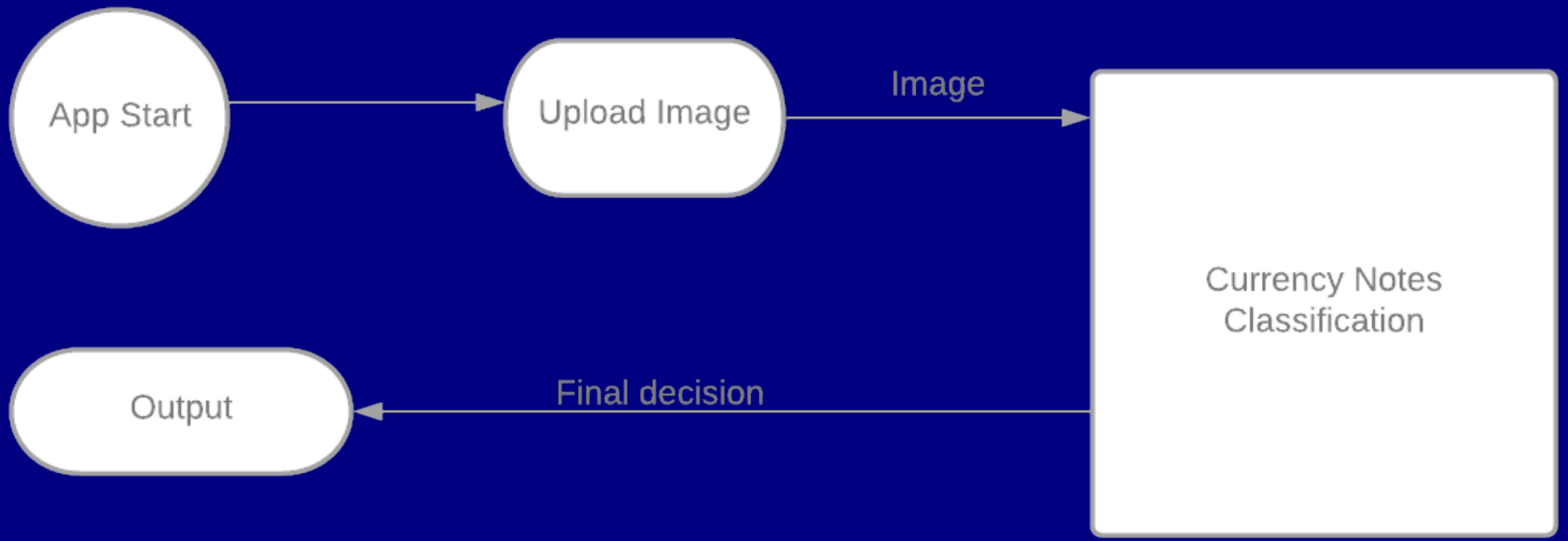
Introduction

- In the present situation, the reputation for currency denomination is becoming a vibrant topic.
- An important aspect of our normal life is money transactions. Particularly the visually impaired people ,suffer in cash exchanges . They may not now be ready to properly comprehend one-of-a-kind denominations and are often betrayed by distinct individuals.

Objective

- Our model is useful for recognizing and identifying the denomination of the currency depending on the trained currency images.
- We are using seven denominations of the Indian currency which are captured in all orientations for testing and training datasets

Approach


App Start
Upload Image
Image
Currency Notes Classification
Output
Final decision

Steps for training the model

- Data Collection
- Building CNN model
- Training the model
- Evaluating the model
- Integrating with flask
- Deploying

Tech Stacks

- Python 3.8.5
- Tensorflow
- Keras
- Latex
- Flask

Problems faced

- Taking up a lot of processing power.
- Needing a large amount of data for training.
- Being difficult to interpret since deep learning is still a developing and rapidly changing field.

Learnings

- CNN algorithm
- CNN Layers
- Activation Functions
- Optimizers
- Latex
- Flask

References

- https://iopscience.iop.org/article/10.1088/1757-899X/992/1/012016/pdf
- https://towardsdatascience.com/a-comprehensive-guide-to-convolutional-neural-networks-the-eli5-way-3bd2b1164a53

Github Link

- https://github.com/ratnadeepikavuddagiri/Indian-Currency-Classifier

Thank you !