K S INSTITUTE OF TECHNOLOGY

No. 14 , Raghuvanahalli , Kanakapura Road , Bengaluru – 560109.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROJECT PHASE – 1 (18CSP77)

"BIRD SPECIES IDENTIFICATION - WIINGS"

Batch No. : 2021_CSE_03

Team Members :

R. Pratiksha

Sourabh Santosh Kamble

Sudhanshu Joshi

Sujay GS

Under the guidance of

Dr. Deepa S R

Assoc. Prof, CSE Dept

CONTENTS

OVERVIEW

- WIINGS is an application which concerns with the identification of the type of bird species when the image is uploaded.
- Large scale, accurate bird species recognition is essential for avian biodiversity conservation.
- Nowadays, birdwatching is a common hobby nevertheless to identify their species it requires the assistance of bird books.
- Identification of the species needs to be carefully analyzed and categorized; large scale bird identification remains almost an impossible task to be done manually.

PROJECT GOALS

- Provides a handy tool to admire the beauty of birds, and to assist them in recognizing the species and the details concerning to it in the form of web application.
- Accurate prediction of the species of birds and suggestions on the hotspot areas for birding.
- Real time tracing of bird species in a certain location.

PROJECT APPLICATION

This application is,

- Handy tool for local people to look for the type of species and details pertaining to it's life span when looking forward to have a bird as a pet.
- Valuable for birdwatchers and ornithologists.
- Convenient tool for architects who are involved in making thesis on birds and it's classifications.
- Suitable for any age group.

REQUIREMENT SPECIFICATION

HARDWARE REQUIREMENTS :

- Hard Disk : 5 GB and above
- Ram : 2 GB and above

TECH STACK :

- Frontend : Flutter
- Database : Firebase
- Backend : DJango
- Libraries : PyTorch, Tensor
- APIs : ebird-api, wikipedia-api

SOFTWARE REQUIREMENTS :

- Operating system : Windows 10/Ubuntu/Android 8 and above
- Coding Language : Python, JS, Dart
- IDE : Google COLAB, VS Code

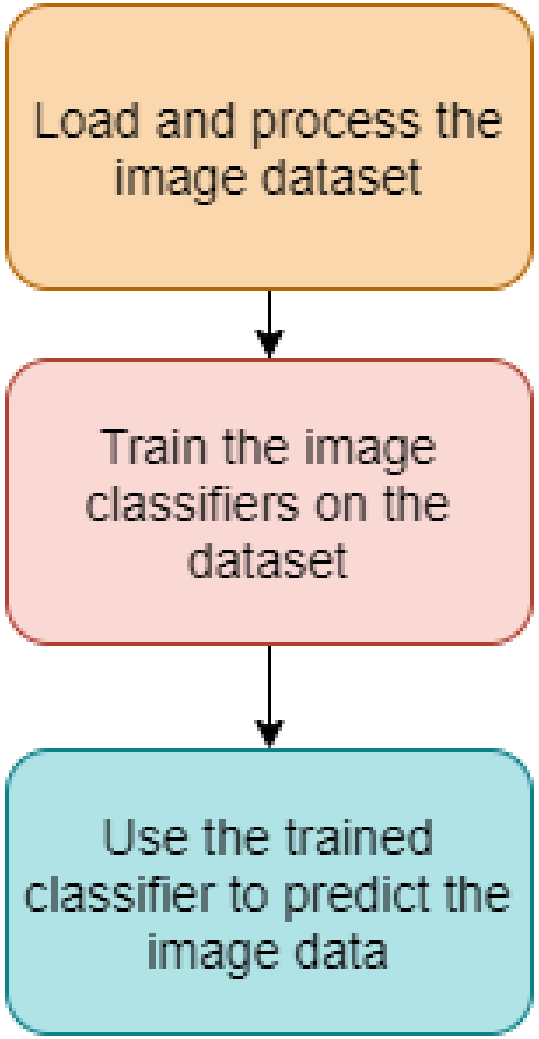
DATA SET

http://www.vision.caltech.edu/visipedia/CUB-200.html

- **Number of categories:** 200
- **Number of images:** 6,033

PART	ATTRIBUTES
Eye	Eye Color
Beak	Beak Shape, Beak Color, Beak Length
Crown	Crown Color
Tail	Tail Shape, Tail Pattern
Wings	Wing Pattern, Wing Color, Wing Shape
Head	Head Pattern

Steps involved in implementation



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Thank you