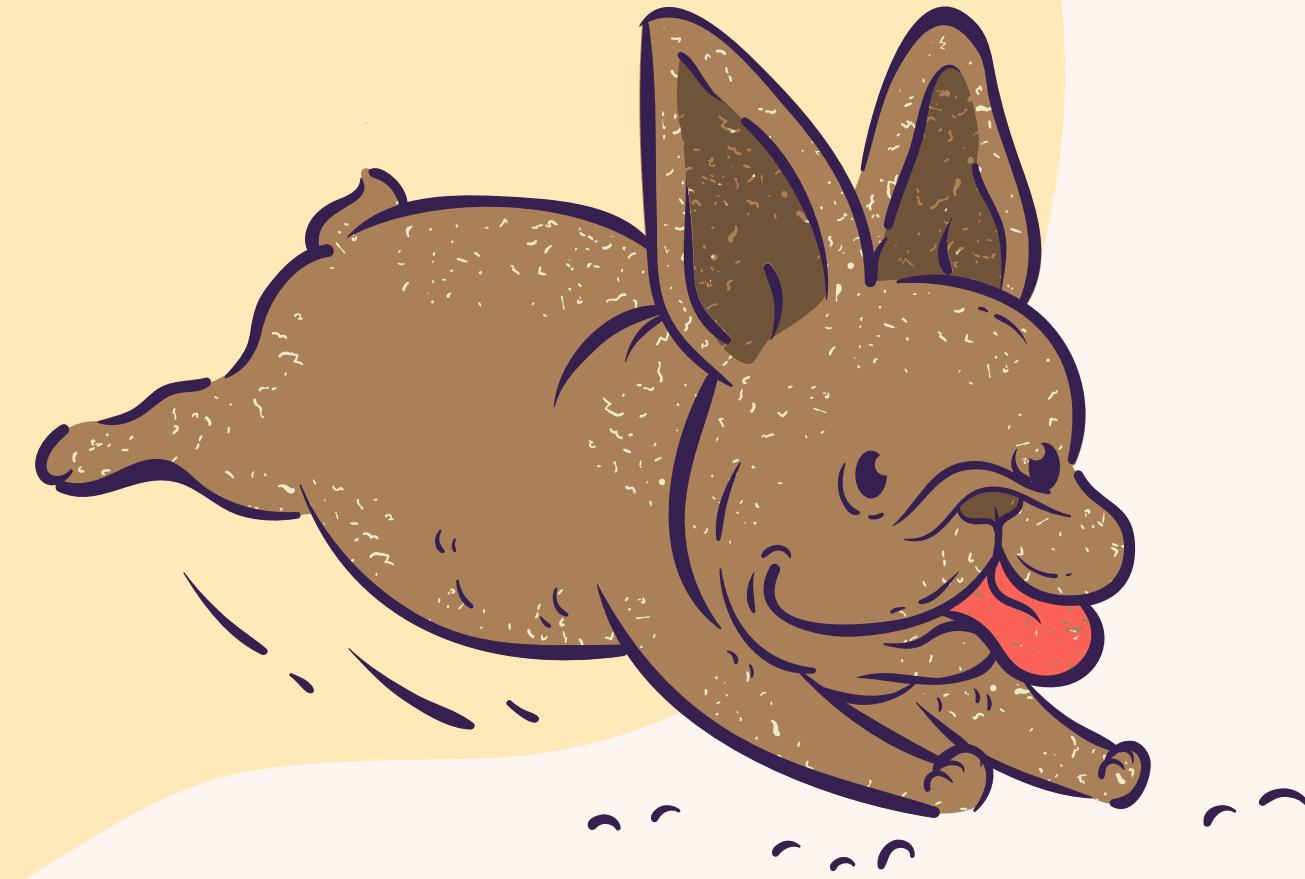


# HOMELESS PET NETWORK

AI5 FINAL PROJECT BY  
TEAM COOKIE-MONSTER

02



# PROBLEM

The core problem we are trying to solve is to help future dog owners find a dog who is a good fit for their lifestyle and family environment.



# Homeless Pet Network

search dogs



**Meadow**

Female



**Kit Kat**

Female



**Frida**

Female



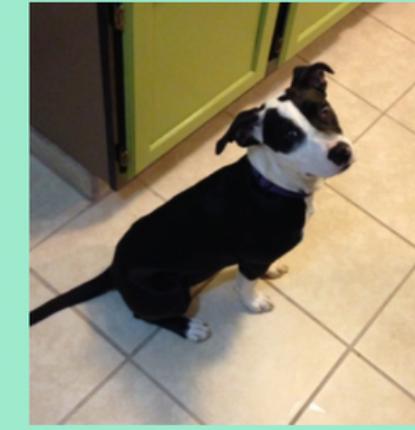
**Snowflake**

Female



**Violet**

Female



**Jangle**

Female

03

# SOLUTION

A user friendly app that helps connect future dog owners with dogs available for adoption.

# APP FEATURES

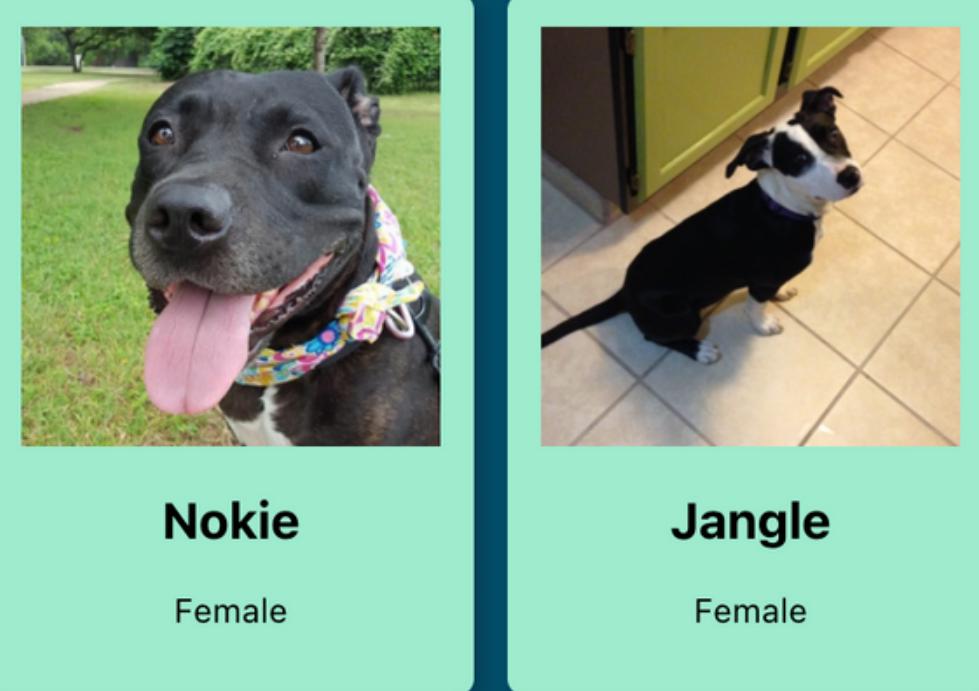


- 01** Help the user search for dogs based on certain features such as size and color.
- 02** Find similar dogs by uploading a picture of a dog the user is interested
- 03** Connect the dog with the user by allowing the user to chat with a persona of the dog
- 04** Put up a dog for adoption

# DOG SEARCH WITH FEATURES

**Homeless Pet Network**

black

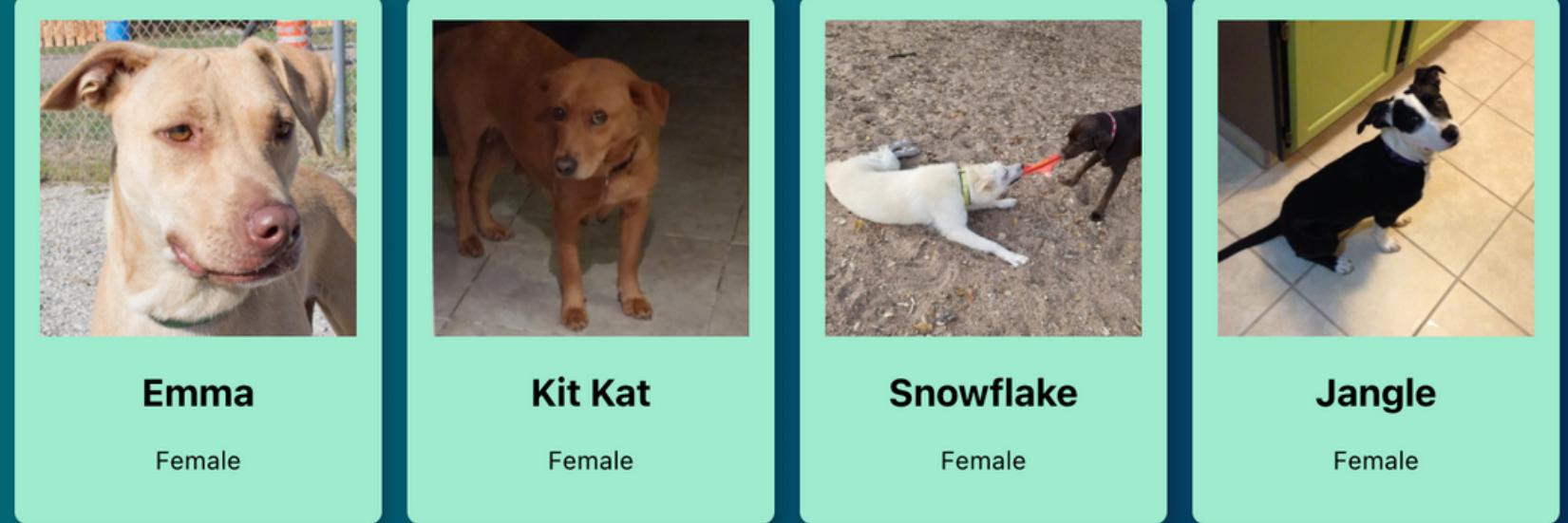


**Nokie**  
Female

**Jangle**  
Female

**Homeless Pet Network**

labrador



**Emma**  
Female

**Kit Kat**  
Female

**Snowflake**  
Female

**Jangle**  
Female

1. Ask for features like color, size, breed
2. Query database
3. Return results



# DOG SEARCH WITH IMAGE

Query Image

1866556



1866556

1982728

Similar Dogs

1760205

1756376

30668091

29826688

16756367

27766498

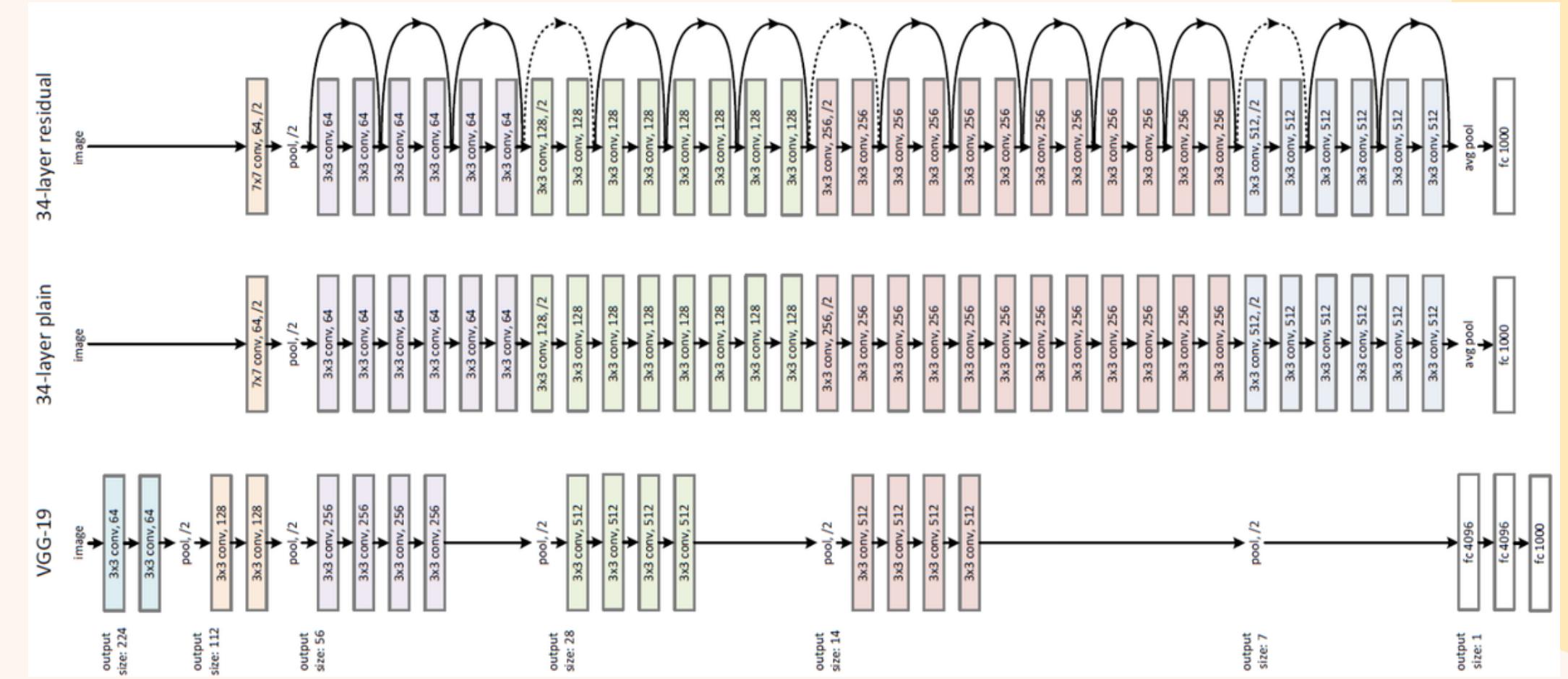
20341183

14163107



1. Upload picture
2. Generate embedding
3. Run a similarity search over available dog embeddings
4. Return most similar

# DOG SEARCH WITH IMAGE



- As a POC we are using pretrained resnet as a feature extractor and are using its outputs as embeddings.
- Next steps ->
  - Use EfficientNet
  - Finetune on dog images



# PET CHATBOT

Hi WHat is your name

Reply-> Angelina

How old are you

Reply-> 4 years old

WHat do you love

Reply-> Angelina

Which breed

Reply-> Terrier

are you house trained

Reply-> working hard to master house training

are you pretty

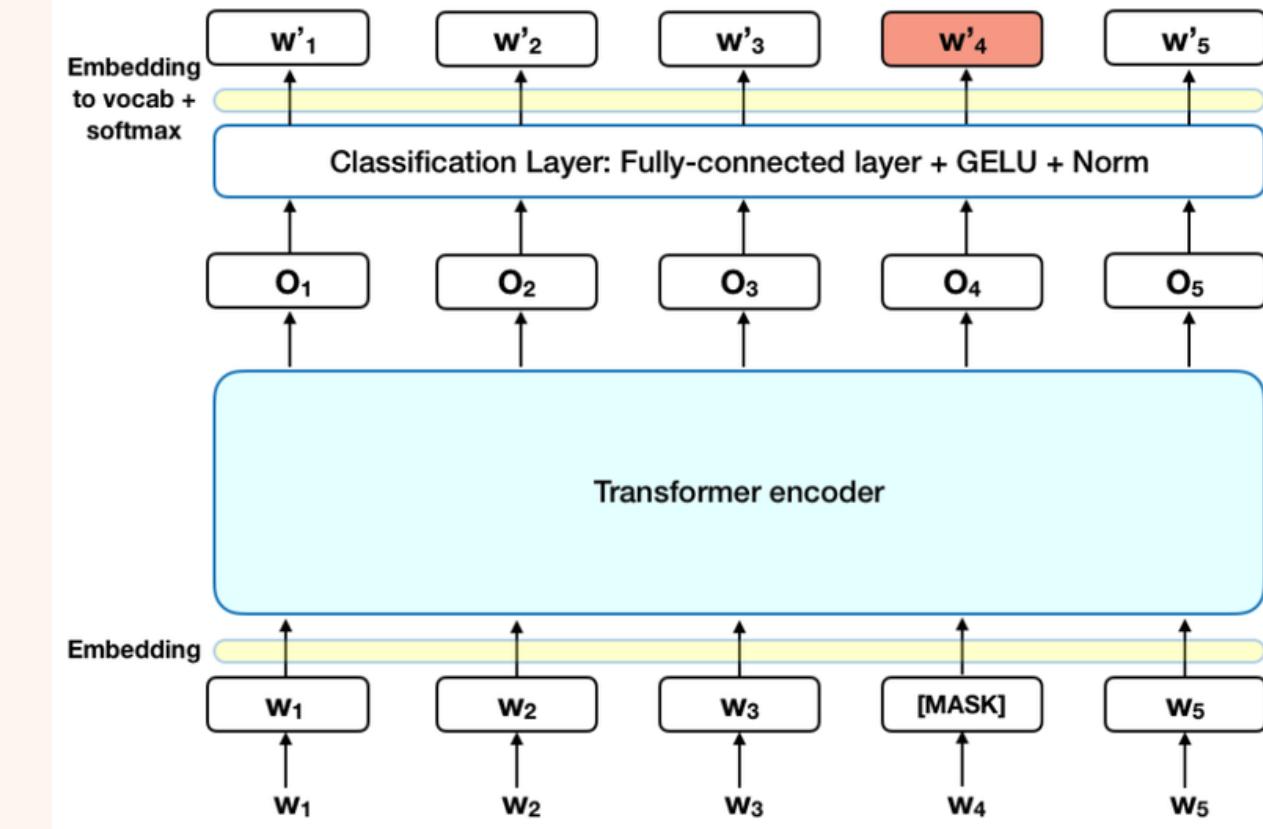
Reply-> Angelina

1. Find a suitable pet and click on chat

2. Ask questions



# PET CHATBOT



- Currently using pretrained BERT for question answering. Context is generated by using features of dog.
- Next steps ->
  - Use GPT2
  - Finetune for dogs
  - Add chat history to context



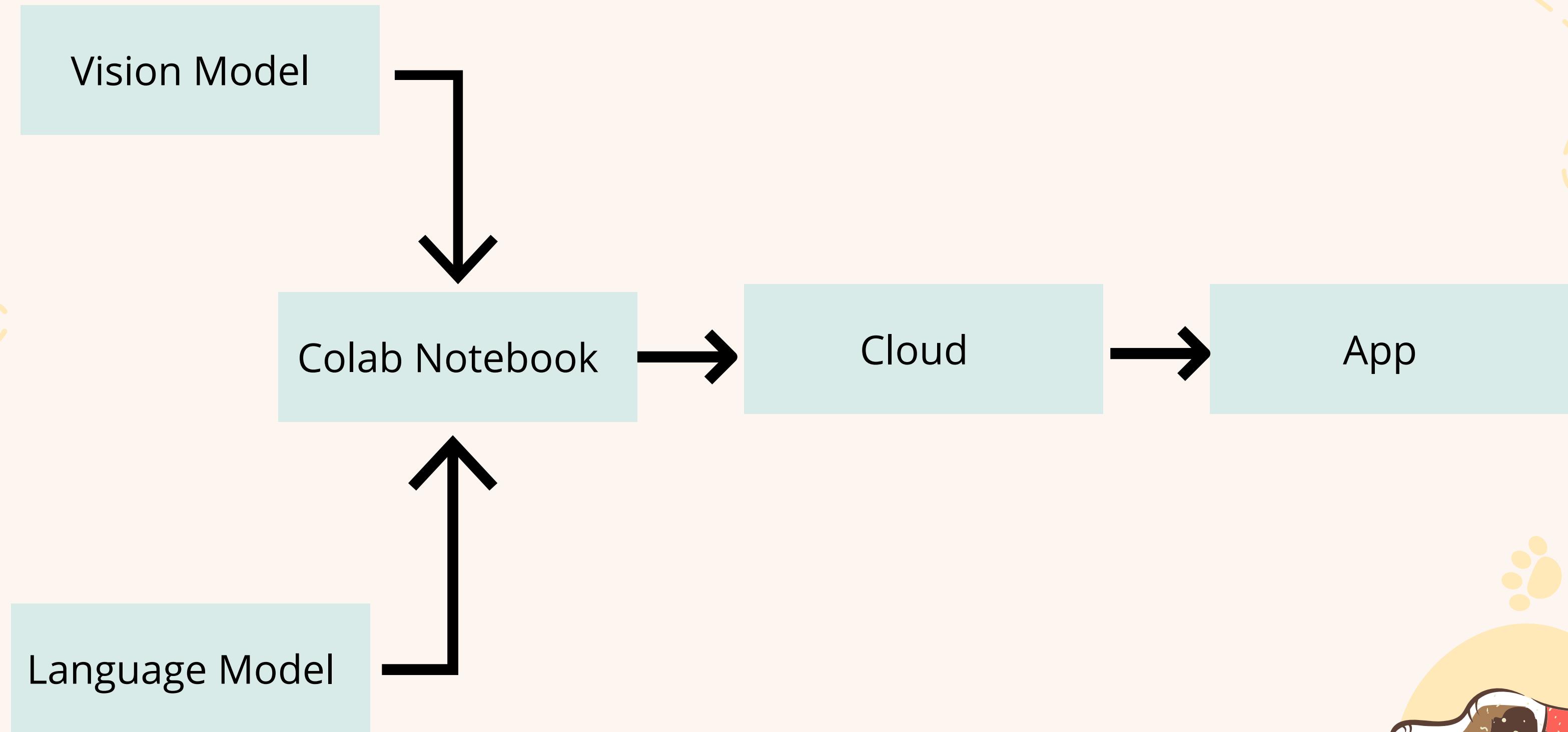
# PUT UP A DOG FOR ADOPTION



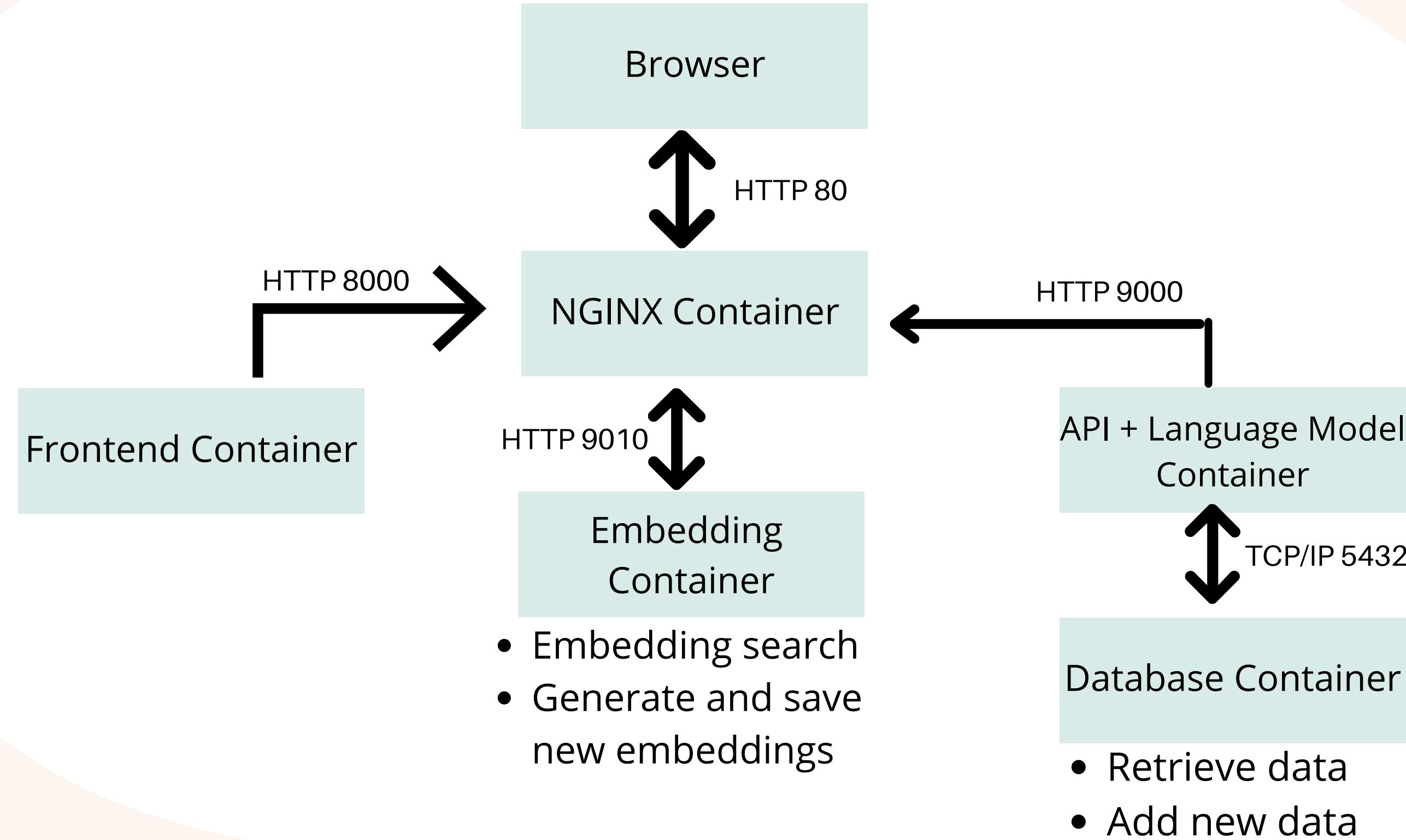
1. Click on add entry
2. Upload picture and add details
3. Generate embedding
4. Add to database



# WORKFLOW



# APP STRUCTURE



- Backend
- Talk to user



# THANK YOU

MONEY CAN BUY YOU A FINE DOG,  
BUT ONLY LOVE CAN MAKE HIM WAG  
HIS TAIL.

- RICHARD FRIEDMAN

