

# Dog Matcher

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# Outline

## Goal

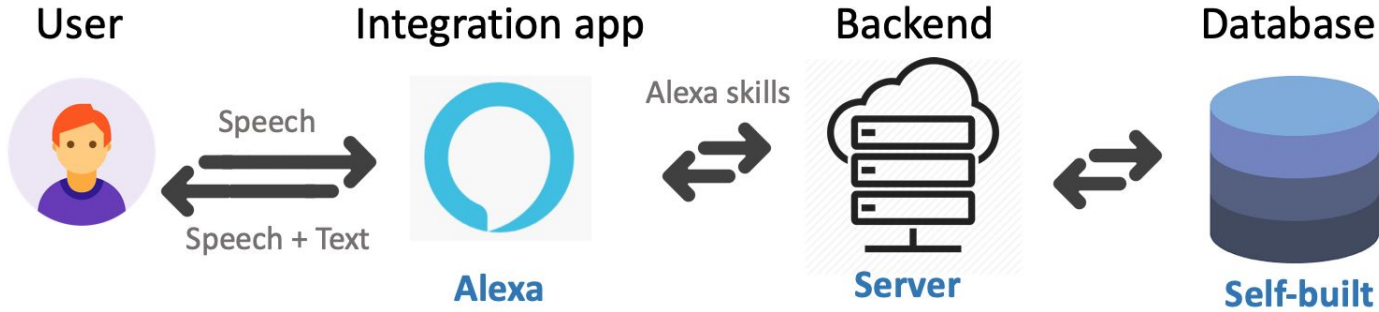
Build a interactive system that helps user find the most suitable dog breed based on user's life habits

## Challenges:

- State tracking
- Coreference resolution
- Complex information presentation
- Multi-initiative



# Framework



## Chatting

User chats with Dog Matcher about his/her lifestyle. During the process, user can ask for clarification at any time

## filtering

Backend obtains user's requirements and search through the database to find the best match(es)

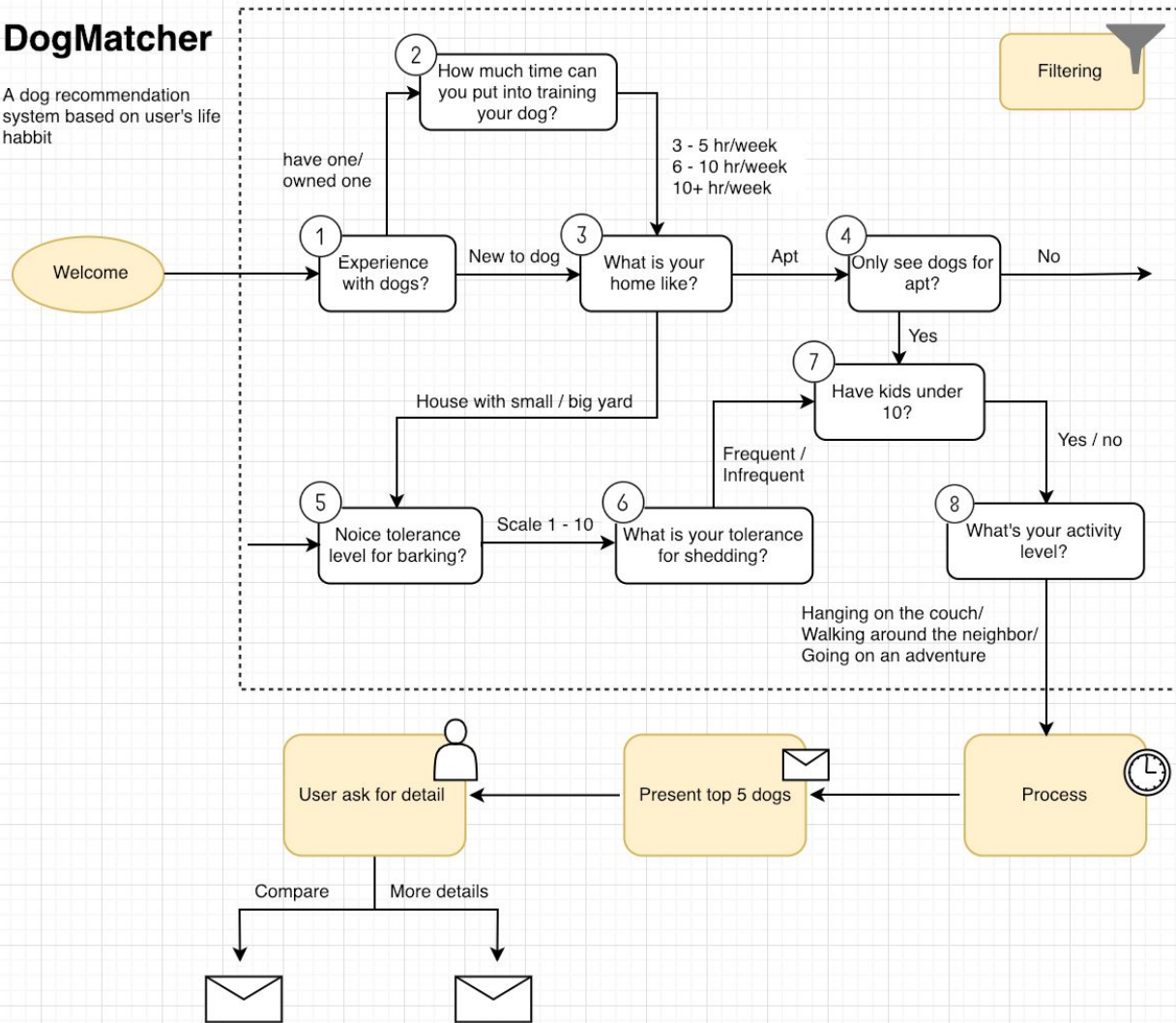
## presenting

Matches are presented on Alexa app, user can ask for more information for a particular breed, or compare two of them

# Flowchart

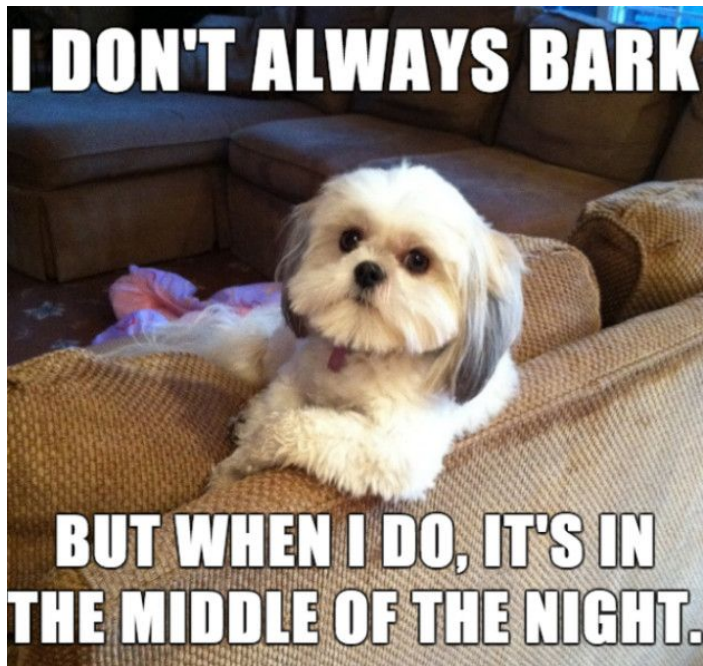
## DogMatcher

A dog recommendation system based on user's life habit



## Demo

Want a quiet dog? Let's find your perfect match!



- State tracking
- Coreference resolution
- Complex information presentation
- Multi-initiative

## What we did

Zijie	Shangyu	Guirong	Anyan
Setup VPS & Web Server. Backend Main Logic Design & Implementation. Alexa Skills.	Web Crawler Create Database Alexa Visualization Question Generation Response Generation	Alexa Skills Multi-initiative Response Generation NP pronoun resolution	Alexa Skills Project Logic Design Database Filter Result Generation Response Generation

# What we learned

## Zijie

- Establish standard i.e naming convention
- Treat user intent as action
- Ask “good” question

## Guirong

- Collaboration makes a good project
- The ability of Alexa parser
- Have to track conversation

## Shangyu

- Team dev using Github
- How human beings speak
- Stay late, stay late and stay late

## Anyan

- Think and discuss before do
- Code modularity and reusability
- Start early, start early and start early

# Future work

		Realization	Improvement
1	State tracking	✓	<ul style="list-style-type: none"><li>• Distribution over possible states</li><li>• More robust error handling</li></ul>
2	Text generation	✓	<ul style="list-style-type: none"><li>• Add more logics</li><li>• Improve vocabulary</li></ul>
3	Multi-initiative	✓	<ul style="list-style-type: none"><li>• Ask more type of question</li></ul>
4	Pronoun resolution	✓	<ul style="list-style-type: none"><li>• More “human” pronoun: last one, first two, etc</li></ul>

- Error handling
- Add complexity to the system
- More vivid display such as pictures
- More user driven



*Thank you*

