



Speak in Emoji

A game with serious purpose

Qimeng Gan



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Introduction

What project is it ?

- Online game
- Deal with emoji
- Aim to get a database which records the translation
- Web application



Speak in Emoji

profile



test

level 0

messages

0

settings



background

edit password

log out



One Player



Two Players

<http://flask-env.z9mj7ncxnb.eu-west-1.elasticbeanstalk.com>

Motivation

Why I interested in this project ?

Why this project is meaningful?



- People especially youth use emoji a lot because it make sense.
- Does people really understand others' way to use emoji?
- GWAP: Academic but Fun
- To be a 'dictionary' for other Machine learning project

Progress

**What technologies do I use
to implement functions?**



- Translation of Emoji :
 - Mysql in utf8mb4
 - Levenshtein distance
- Game: HTML+flask
- Online: AWS
- Two player mode: websocket



Levenshtein distance

- Idea

- kitten \Rightarrow sitten (substitution of "s" for "k")
- sitten \Rightarrow sittin (substitution of "i" for "e")
- sittin \Rightarrow sitting (insertion of "g" at the end).

- Implement

- $$\text{lev}_{a,b}(i, j) = \begin{cases} \max(i, j) & \text{if } \min(i, j) = 0, \\ \min \begin{cases} \text{lev}_{a,b}(i-1, j) + 1 \\ \text{lev}_{a,b}(i, j-1) + 1 \\ \text{lev}_{a,b}(i-1, j-1) + 1_{(a_i \neq b_j)} \end{cases} & \text{otherwise.} \end{cases}$$

[1]The Levenshtein distance mathematical definition

- Consider each emoji as a character



- Elastic Beanstalks

- Environment

- Requirement.txt

- EC2, RDS

- Security group

For developing

类型 ⓘ	type	协议 ⓘ	protocol	端口范围 ⓘ	port range	来源 ⓘ	source	描述 ⓘ
MYSQL/Aurora		TCP		3306		0.0.0.0/0		
MYSQL/Aurora		TCP		3306		sg-0c267749d9df75807	(awseb-e	

For application, allow EC2 access RDS



Why this way

Why I choose these technologies ?

- Database
 - RDS
- Advantage of flask
- AWS
 - Server
 - Good provider
- Websocket

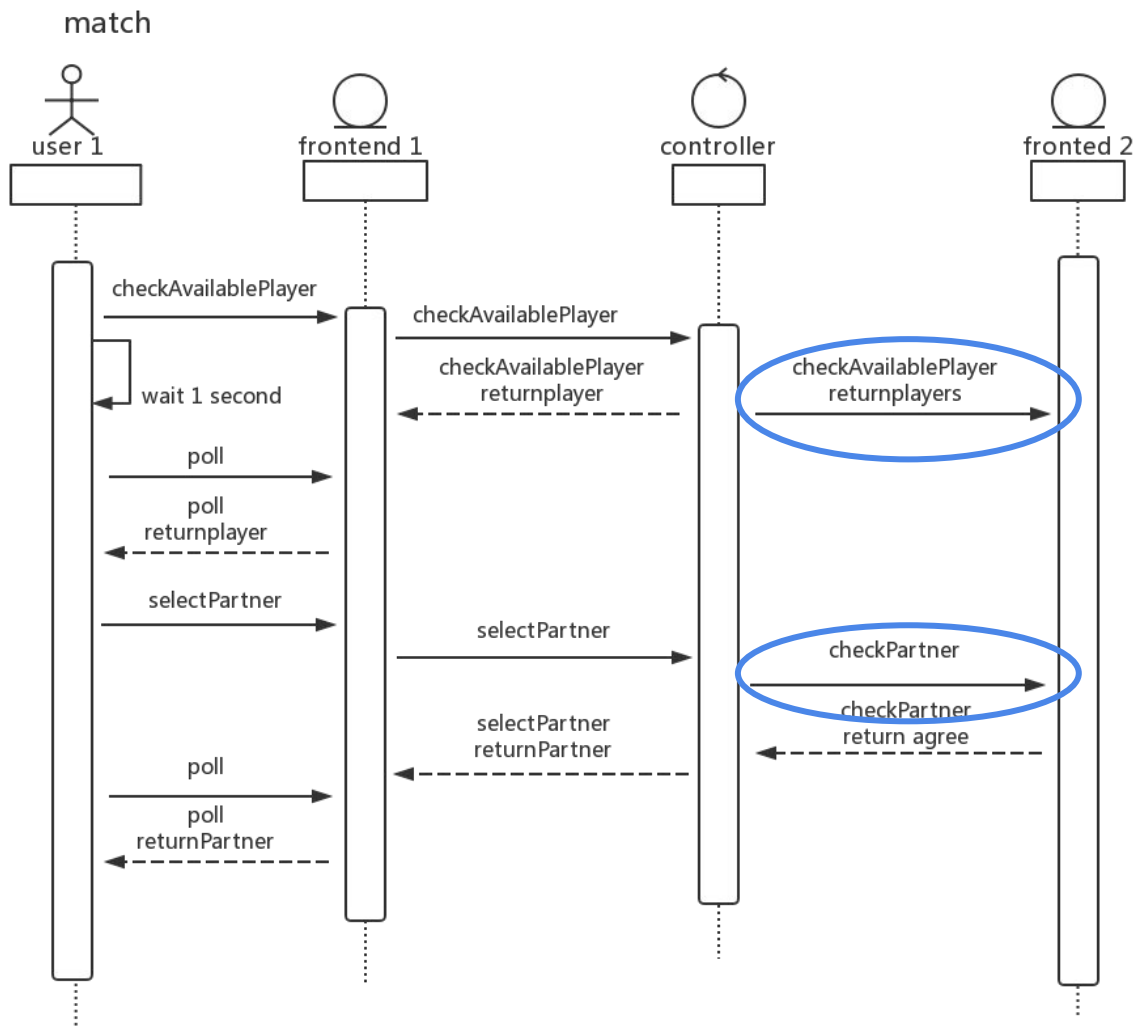


Advantage of flask

- Python
 - The syntax of the programming language is easier for me to understand comparing with php.
 - Dictionary: easy to implement algorithm
- Flask
 - URL
 - Flask vs SpringMVC
 - Configuration file

Websocket

Protocol that server can enable the server to actively send information to the client.



Estimate

How the project perform ?

How is it to achieve the goal?



- Users

- Number

- User group attribute

- level, media

- Translation

- Number

- Recognition



Problem

What problem does the system have according to estimation?

- Unstable loading speed
- Distortion

Conclusion



- Learn how to develop a web application
- Inspire me why we translate emoji
- Learn some distance algorithm
- Challenge but Sense of accomplishment

**Thank you for listening.
What question do you have?**

Speak in Emoji

