

MukGo

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Team 6

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TARGET USER



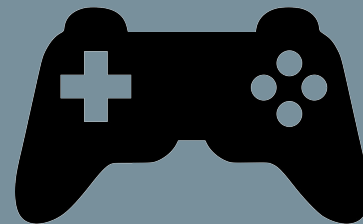
Want to show off their restaurant reviews



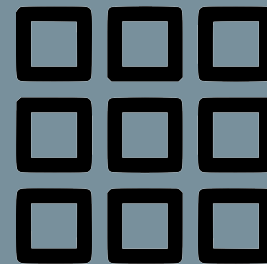
Interested in game



Want to see categorized reviews



Don't want unhealthy reviews



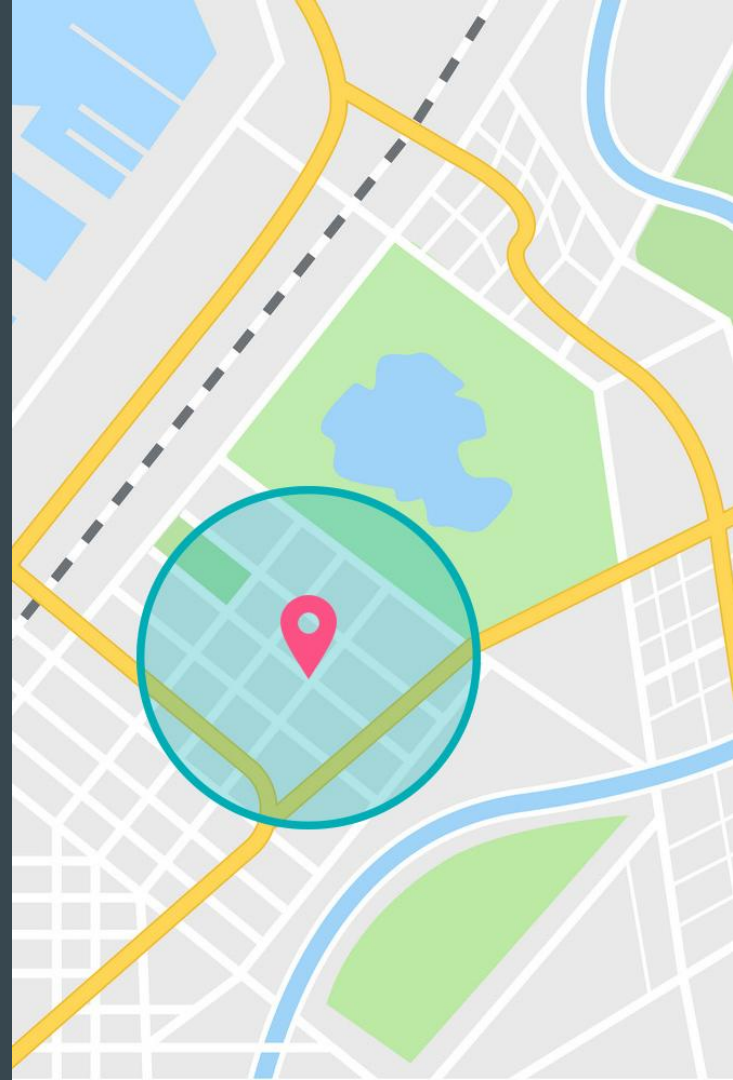
KEY IDEA: Geolocation-based Review

Mukgoers can only find restaurants and leave reviews within their **sights**.

Mukgoers get **experience points** for their activities.

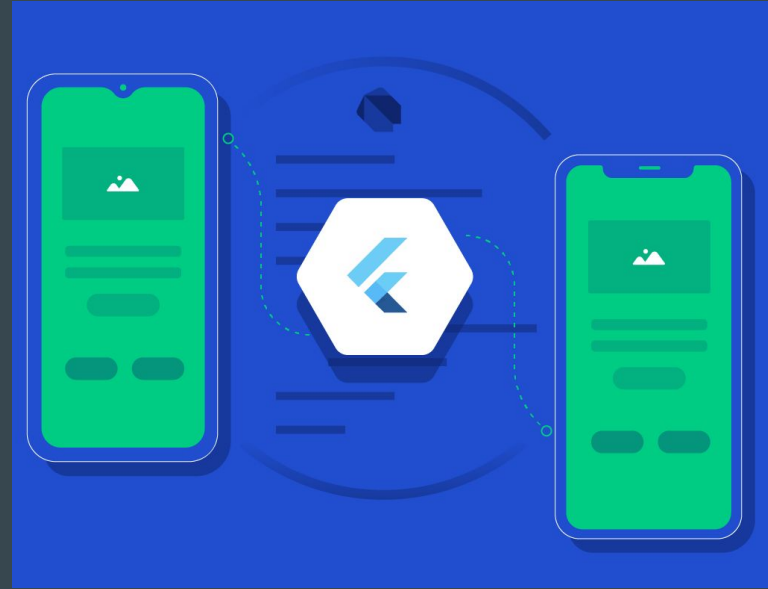
If mukgoers' experience points reaches certain threshold, their **levels** get upgraded.

Can see **ranking** of top N mukgoers.



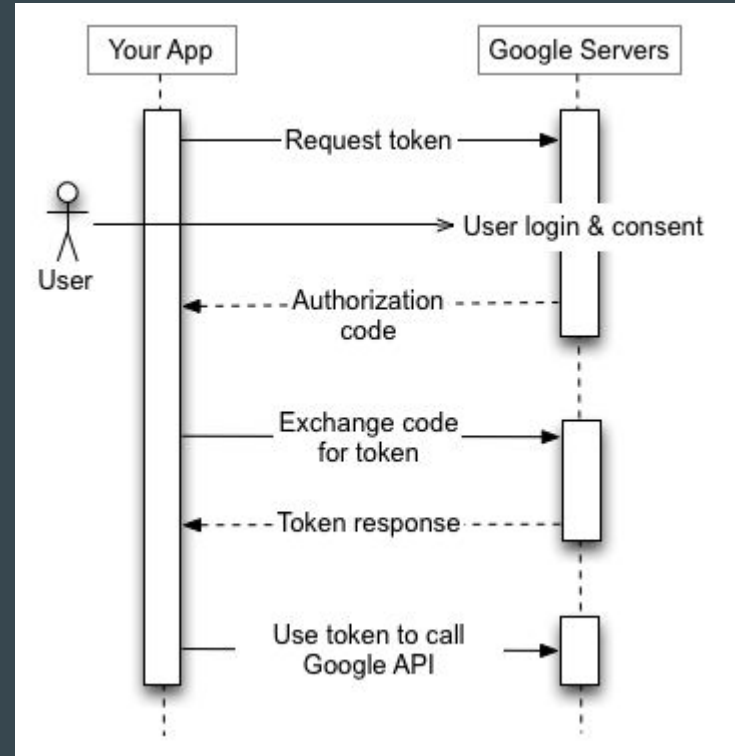
TECHNICAL CHALLENGES (Flutter)

- Lack of Mobile app development experience
- We choose to use **Flutter framework** for our frontend development
- **Cross platform** (code once, run on many platforms)
- Provide **easy & fast** developer experience (Dart language, Hot Module Replacement)
- Almost **no performance difference** with native applications



TECHNICAL CHALLENGES (OAuth2.0)

- For Authentication of service, we choose **Google OAuth2.0 Protocol**
- Users can sign in our application with their **google account**
- Our app should manage several client-server **network flow** to get proper Authorization Code & Access Token
- We use **Access Token** to distinguish between users



TECHNICAL CHALLENGES (Geolocation)

- **Geolocator** package in flutter wraps GPS api for developer.
- Can register **handler** which handles user location in certain intervals.
- Gives location type (latitude, longitude)
- Easily find location of mukgoers and restaurants

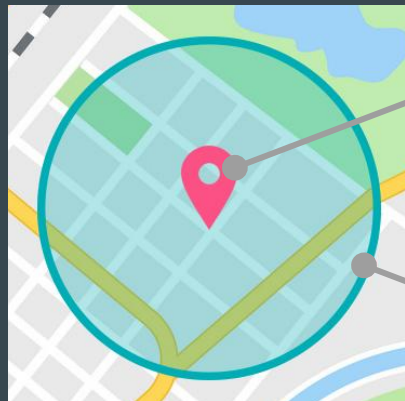


TECHNICAL CHALLENGES (Google Map)

- Flutter has only official plugin of Google Map (Naver, Kakao map X)
- We can draw on marker and circle on Google Map freely.
- But, for using google map, We have to set api key on Google and attach into android system of flutter project because of paid service.



Google Maps



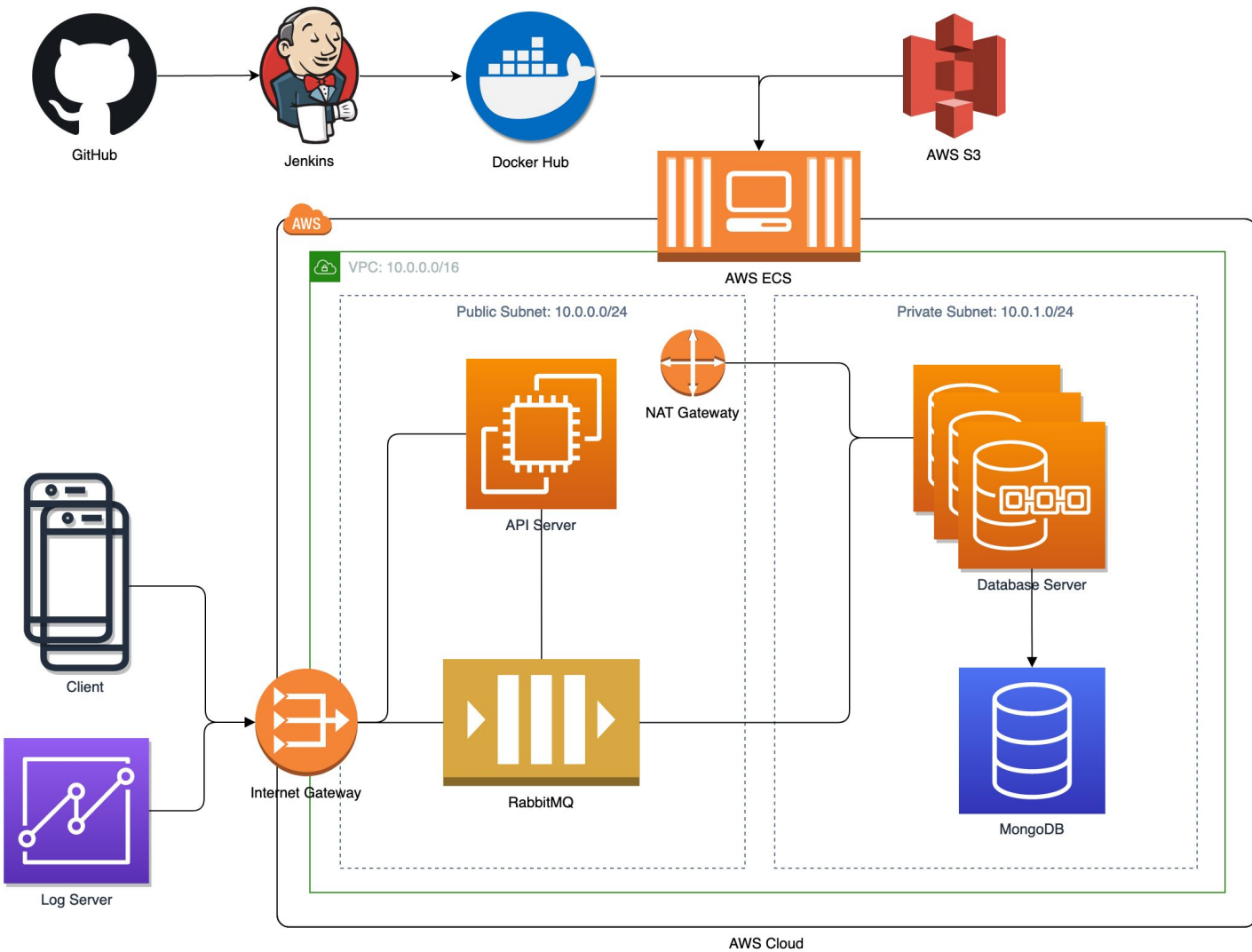
Marker

Circle

TECHNICAL CHALLENGES (Protobuf)

- **Unifying protocols** among multiple programming languages is **boring** and **painful**.
 - Dart ↔ Json ↔ Golang
- **Google protocol buffers** provide single protobuf language.
- Protoc, which is protobuf compiler, **compiles protobuf messages** into multiple languages.
 - Dart, Go, Java, Python, Ruby, C++, C#, Objective-C, JavaScript, PHP, ...





PROJECT PLAN

Timeline	September		October					November			
	3	4	1	2	3	4	5	1	2	3	4
OAuth 2.0	✓	✓									
Display Review		✓	✓	✓	✓						
User Information				✓	✓	✓	✓				
Map API		✓	✓	✓	✓	✓	✓	0	0	0	0
Send Review						✓	✓	0	0	0	0
Ranking								0	0	0	0
Protocol Definition	✓	✓	✓	✓	✓	✓	✓	0	0	0	0

FINAL DELIVERABLE

- MukGo android application.
- Provide and store a restaurant and game database with stable service.
- Location-based service operation.



SUCCESS CRITERIA

- Development Completion
 - a. User page
 - b. Map display
 - c. Review page
 - d. Post review
 - e. Ranking

