

Ubiquitous and Mobile Computing

CS 528: *PlayerPooling*

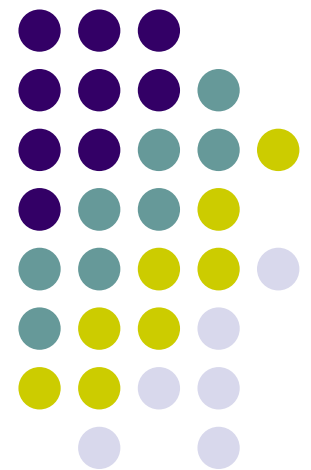
Final Presentation

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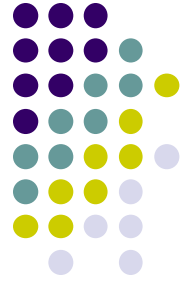
Computer Science Dept.

Worcester Polytechnic Institute (WPI)



Outline

- Motivation and Introduction
- Methodology
- Discussion
- Limitation
- Future Work





Motivation & Introduction

- Boring? Play Board game !
- Short of players? Your friends may be busy!!!



- Requirements

Ask interested players nearby to join my game
Start the game ASAP!!!

Methodology-Tech



DynamoDB
Managed NoSQL Database



SNS
Push Notification Service



Cloud Messaging



Google Developers



Google Maps Android API



Google Places API for Android






Methodology

- Enable Google Cloud Messaging (GCM) for app

✓ You are configuring the **PlayerPooling** app with package name `edu.wpi.zqinxhao.playerpooling`. ✕

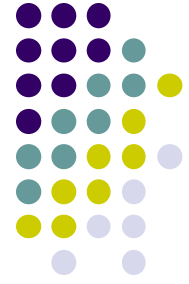
Select which Google services you'd like to add to your app below.

 Google Sign-In  Cloud Messaging  Analytics

Cloud Messaging ✕
✓ Enabled for your app
[DOCUMENTATION](#)

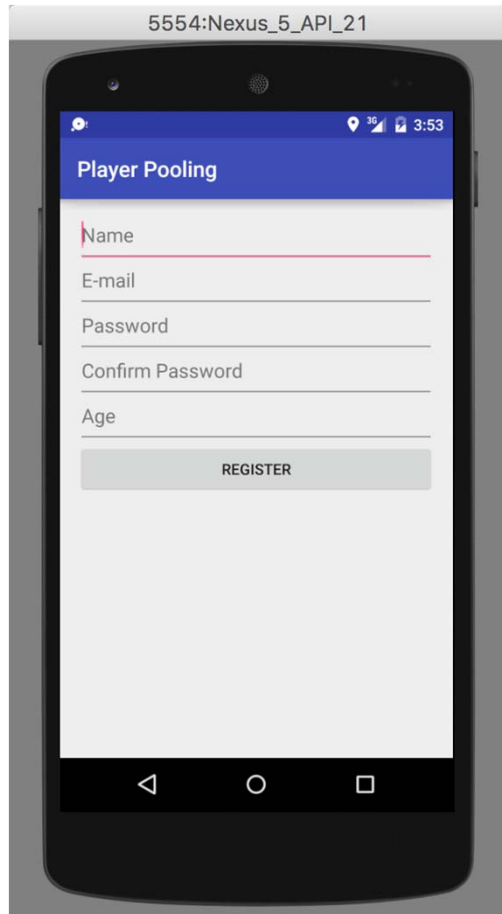
Server API Key 
AlzaSyD6dQqQN27e614XK00sjxXP0uAjsdk3qCU

Sender ID 
262569811996



Methodology

- Register/Login Module using AWS DynamoDB



User Close

Overview Items Metrics Alarms Capacity Indexes Triggers Access control

Create Item Actions

Scan: [Table] User: email Viewing 1 to 7 items

Scan [Table] User: email

Add filter

Start search

	email	age	endpointARN	name	password
<input type="checkbox"/>	try4@	1	arn:aws:sns:...	try4	cRDtpNceBiqI5KOOQ...
<input type="checkbox"/>	u@	16	arn:aws:sns:...	uu	cRDtpNceBiqI5KOOQ...
<input type="checkbox"/>	try@	1	arn:aws:sns:...	try	cRDtpNceBiqI5KOOQ...
<input checked="" type="checkbox"/>	try2@	12	arn:aws:sns:...	try2	cRDtpNceBiqI5KOOQ...
<input type="checkbox"/>	try1@	1	arn:aws:sns:...	try1	cRDtpNceBiqI5KOOQ...
<input type="checkbox"/>	try3@	1	arn:aws:sns:...	try3	cRDtpNceBiqI5KOOQ...
<input type="checkbox"/>	yy@	16	arn:aws:sns:...	su	cRDtpNceBiqI5KOOQ...

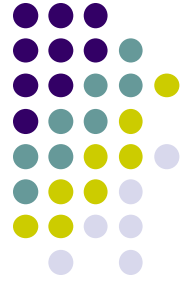
Endpoints

Publish to Endpoint Create Platform Endpoint Other Endpoint Actions

Filter

	Token	Endpoint Arn	User Data	Enabled
<input type="checkbox"/>	eVwMN9Ks5m0:A...	arn:aws:sns:us-west-2:872831404379:endpoint/GC...	CustomData - Useful to store endpoint specific data	true
<input type="checkbox"/>	d4zfC1nNbDI:APA...	arn:aws:sns:us-west-2:872831404379:endpoint/GC...	CustomData - Useful to store endpoint specific data	true
<input type="checkbox"/>	fEYLu0b99As:AP...	arn:aws:sns:us-west-2:872831404379:endpoint/GC...	CustomData - Useful to store endpoint specific data	true

Methodology



Limitations

- Development time
- Crude UI
- Logic bugs





Future Work

- Make the app robust
- Improve UI
- Rating Module
 - evaluating the rate of being late of users
- Tracking Module
 - When an accepted user doesn't move for a long time, deny him



Thank You!