

IEMS5722 - Mobile Network Programming and Distributed Server Architecture

Project presentation:
Party Time

About us

- Download ParyTime:

- <https://www.dropbox.com/s/10qur5juzh90q6x/partytime.apk?dl=0>



- Member List:

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Our Goal

- Play “Multi-Player game” (Party Game)
anyone anytime anywhere



A black chalkboard with three items checked off in white chalk. Each item consists of a blue square box containing a red checkmark, followed by the word in white cursive script.

- ☒ Anyone
- ☒ Anytime
- ☒ Anywhere

Similarity in Google PlayStore

- Collection of mini games
- Able to play with friends together
- EG: 4 player reactor



However...

- Constrain
 - Must be play on the same device
 - That's why it limits to 4 players due to screen size



**We would like to play on
our own device!**



That's why...

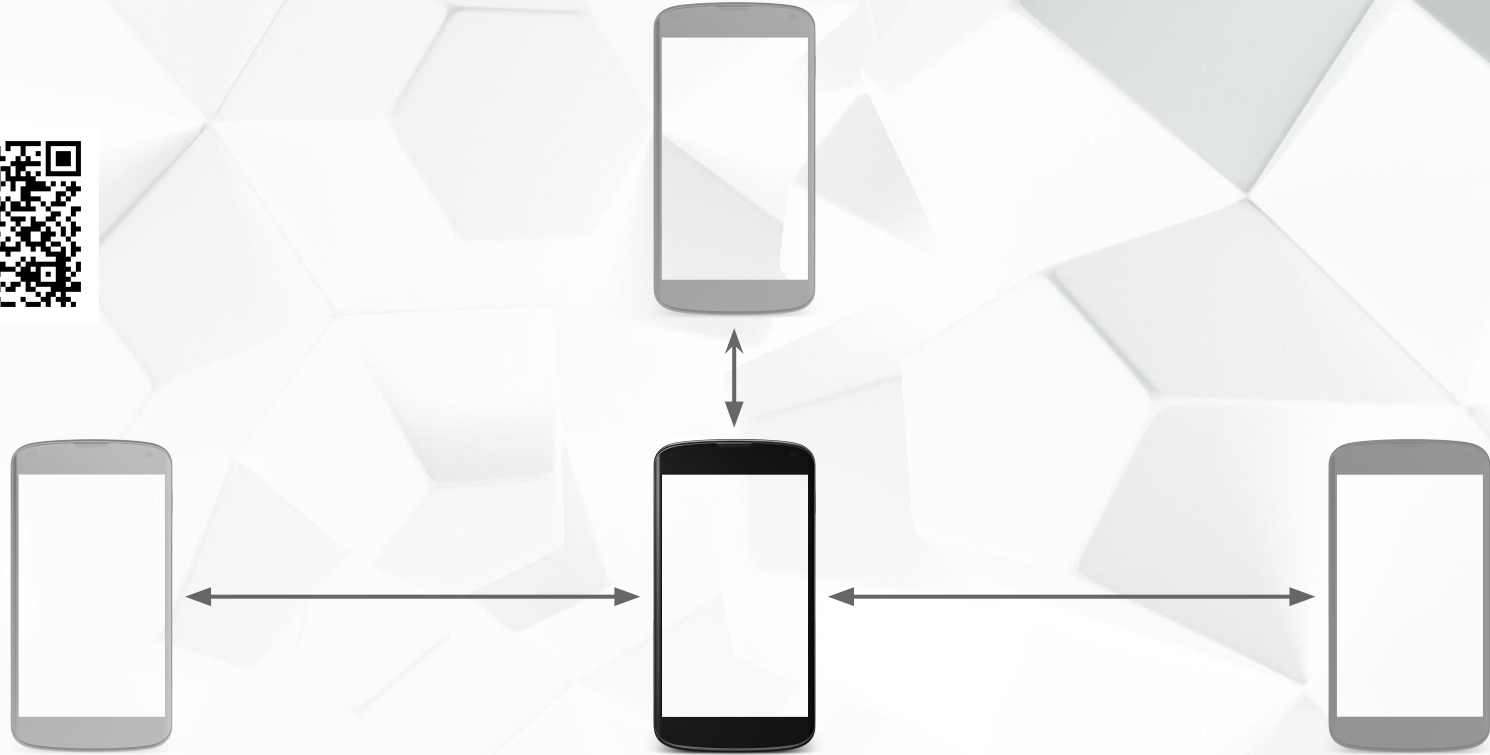
- We would like to develop our own variation.
- Party Time :D



Now, let's start coding...



Server client architecture



Fundamental building blocks

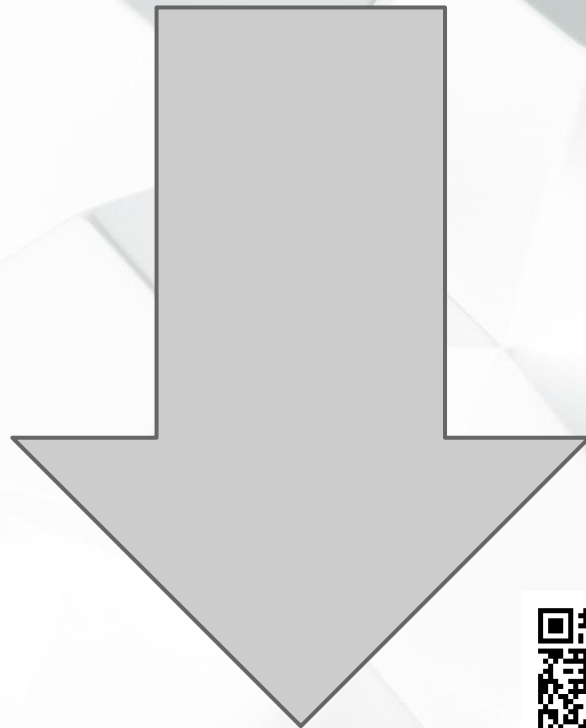
[Kryonet](#)



GameServer

GameController

GameActivity



Put things together...



[Kryonet](#)

GameServer

GameController

GameActivity

About



- Open source library. [Here](#) is their repository
- Actual implementations for network calls (OSI layers 4 or below)
- TCP, UDP connection setup
- Unicast support (clients to server)
- broadcast support (server to clients)
- Keys to Synchronize devices



About GameServer layer

- Abstract codes for dealing with Kryonet network
- Forwards events back and forth from Kryonet to GameController



About GameController layer

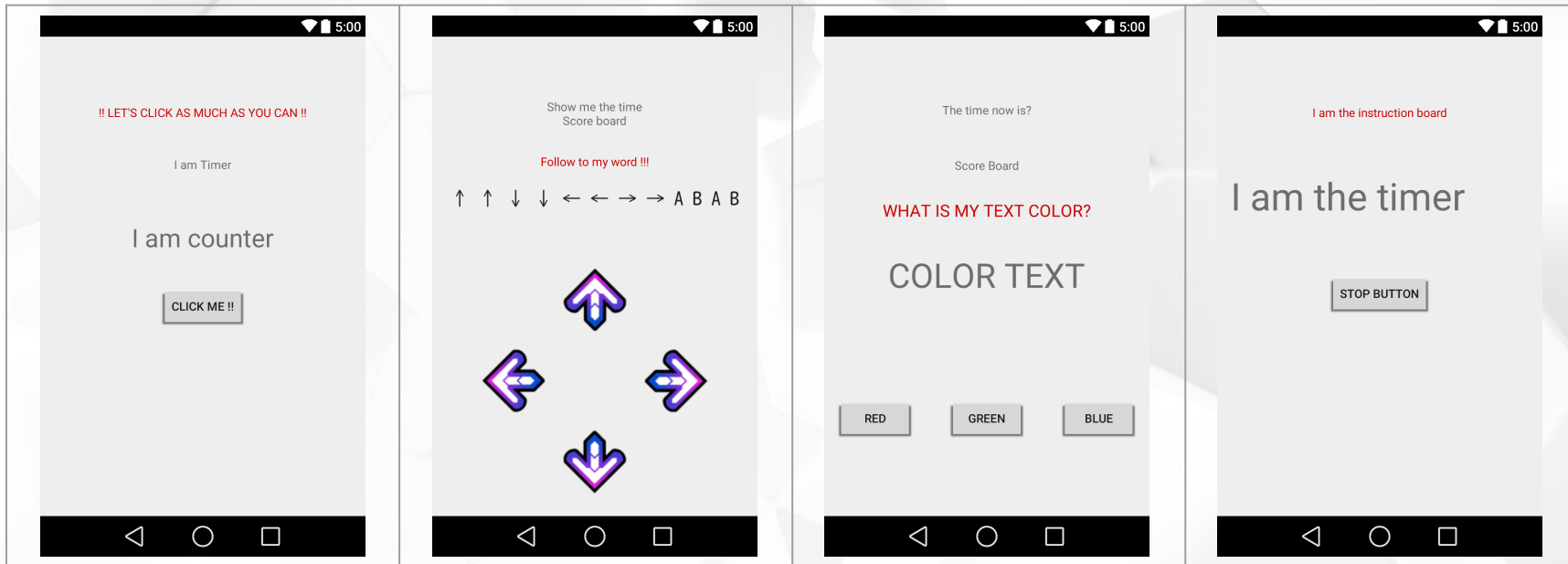
- Handle threading calls (sendMsg() etc)
- Identify messages from GameServer
- Forward messages back and forth from GameActivity and GameServer



About GameActivity layer



- Actual game specific implementation



Demo...

<https://www.youtube.com/watch?v=kXNK0vh0egc&feature=youtu.be>



Demo

Improvement

- Team match
- More mini games
- Host discovery





