

# Royal University of Phnom Penh

**Project Practicum** 

"Student Lobby + Online "

• Bring life to virtual \*











### Content:



- **❖ Background and Motivation**
- Problem Statements
  - Misinformation
  - High consume of money & time for outside society
  - Limited chance
- \* Aim & Objective
  - People communicate online
  - People can chat with visual way
- \* Research Plan
  - Workflow Progress Design

- Limitation & Scopes
  - Global access & Multiplayer
  - Desktop Application
  - Sent Message(text, voice)
  - Path finding
  - Mini Map
  - Presentation
- Methodology



SORY TET

## Background & Motivation:



You're a student trying to pick a university, but there are so many choices! We're creating a cool 3D platform where you can visit different universities online, chat with other students, and learn together. It's a fun way to make decisions, save money, and connect with others on your educational journey.

-find friends with the same passion to talk, no worry any personal background



### **Problem Statements**



**1. Misinformation: Why?** => This is why 3D come-in!



Mom: How does your school look like?

U: My school have a beautiful environment





### Move = Time & Money



#### 2. High consume of money & time for outside society

# Move = money & time





# Limited Ability & Opportunity



3. Some People have a limit ability for choosing their University which they love And Opportunity in some case of University.

# Some of them can't join school, cuz they have job to work





## Aim and Objective



- People can chat, talk, text,
  Interact, and watch something
  together ...
- Build a Strong Connection in School Community



## Limitation & Scopes



- Global Access || Multiplayer
- Desktop Application
- Sent Message (text, voice=>third party)
- Mini Map for view the whole map as 2D aspect
- Announcement or alert message when class open or other event start
- Presentation in class
  - Projector Connection
  - Press the button and have a sit



## Methodology



- Using Unity Engine for Game dev
- Using Netcode for GameObject as a Network Framwork
- Using Dedicated Server for Communication C2C
- Using Discord Integration for voice system
- Using Starter Kit Asset of Unity official Provider
- Using New Input System for Flexible in any Controller(Input)
- Using other more Module in Unity Gaming Service to support multiplayer and game mechanics



### Research Plan



- Choose game engine
- Search Network Solution
- Basic Unity Scripting
- Synchronize Data : Movement, Animation, Event, Stats
- Game Server Handler: Dedicate Server, Peer to Peer
- Starting to Build Environment: Modeling, Texturing, Animation, ...



### Lecturer Review





https://youtu.be/7glCsF9fv3s?si=jCqav4avlb6HnijQ



Encyclopedia | Free Full-Text | Metaverse (mdpi.com)



https://youtu.be/Uvufun6xer8?si=iEb187u2l9fbRXzM



**SORY TET** 

# Demo Time

**Student Lobby** 

**Environment** 

**Preview** 

**Project** 

