

The background is a pixel art illustration of a dark, stone-walled room. On the left, a character with brown hair and a blue shirt is hanging from a rope. Below them, another character is holding a large yellow key. The room features several arched windows with blue panes and a small red candle on a stand. The title 'THINK OUTSIDE THE ROOM' is written in large, white, pixelated letters across the center.

# THINK OUTSIDE THE ROOM

by WISA

Senanur Ates

Aiysha Frutiger

Illia Solohub

William Tran

# Team

William



Game Logic

Illia



Networking

Sena



Sena  
GUI

Aiysha



Aiysha  
Art & Music

# About the Game

## Genre:

- 2D Jump and run
- Puzzles - Platformer

## Players:

- 4 players

## Game feature:

- 2 player per character twist

## Goal :

- to finish this level through skillful jumping, puzzle solving and cooperation



# Level Design

- Platform based / moving Platforms

- Moving cameras

- Items:

- Flashlight

- Rope

- Boxes



# Charakters

## Player one:

- o walking
- o throwing

## Player two:

- o Jumping
- o grappling

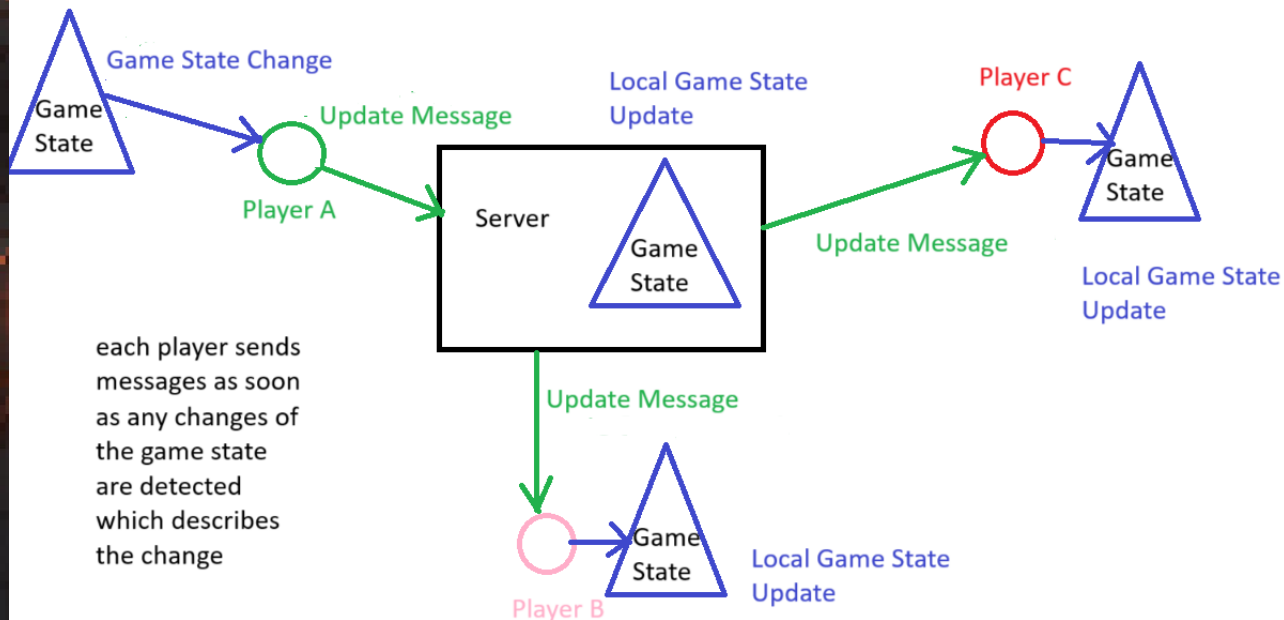




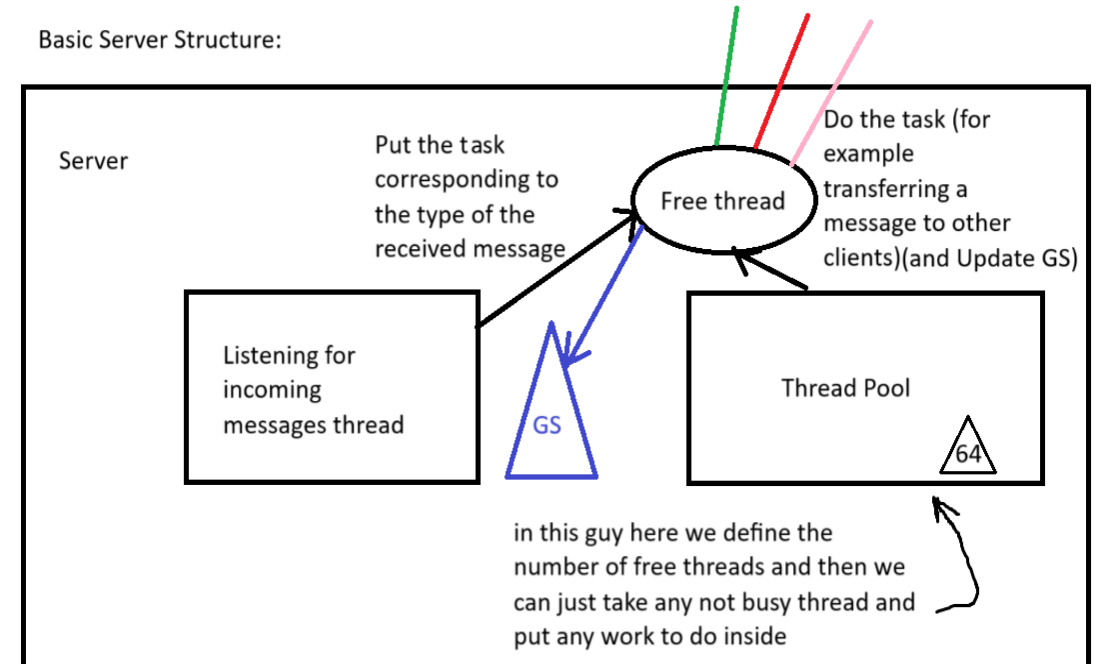
# Networking

How we are planning it to look so far:

UDP Protocol



Basic Server Structure:



MOVE {LEFT} [bob, 100]

# Constraints & Assumptions

## Technical and Development

- Java 21
- text-based network protocol
- Designed for standard hardware
- No violent content

## Assumptions:

- Players have stable internet connections.
- Game runs on a university-controlled network.
- Uses approved external libraries only

# Functional Requirements

## Main Features of the Game

- Client-Server Connection
- Real-time Gameplay Synchronization
- Obstacle and Puzzle Management
- Dynamic Camera System
- Game State Management
- Chat and Communication





# Non-Functional Requirements

- Performance: 30 FPS
- Scalability: concurrent sessions
- Security: encrypted authentication and communication
- Collision Detection



# Project Planning & Progress

## What have we done so far?

- Different project ideas were discussed.
- A common project idea was agreed upon.
- Who is good at what? We analyzed the distribution of tasks.
- Everyone did general research on the project and we shared our research with each other.
- The roadmap for Milestone 1 has been created.

# Project Planning & Progress

What are the future plans?

- We will implement the Login & Logout system.
- We will handle Ping & Pong message processing.
- We will work on Encoding & Protocol Validation
- We will develop the Chat feature, enabling client-to-client communication.

# Timeline

15.05.2025



06.03.2025

1

Mockup

Client/  
Server

Game  
rules

Soft-  
ware

27.03.2025

2

Protocol

Server

Client

10.04.2025

3

Game-  
logic

Edit  
Server

Edit Client

01.05.2025

4

Dokumentation

GUI  
Game

Testing

Last  
adjustments

debugging

5

