

Chess in Metaverse(MetaChess)

Proposal Presentation



Group Members:

Muhammad Abdullah(P19-0036)

Abdullah Tahir(P19-0067)

Nauman Tasawar(P19-0073)

Supervisor:

Mr Zeshan Khan

National University of Computer and Emerging Sciences

Table of content



1. Introduction
2. Expected Results
3. Goal Achieved
4. UML Diagram
5. Demonstration of Environment
6. Technical Difficulties Faced
7. Technical Difficulties Resolved
8. Future Work
9. Gantt Chart
 - 9.1 FYP-1 Gantt Chart
 - 9.2 FYP-2 Gantt Chart
10. Teamwork

1. Introduction

What is Metaverse?



Metaverses are commonly described as immersive, interactive digital environments, and can support social and commercial activities.



(a) Metaverse environment [?].



(b) VR headset [?]

Figure 1: Metaverse

2. Expected Results

Expected Results



FYP-1

- 3D model of chess and environment.
- Developing basic animations.
- Chess mechanics.

FYP-2

- 3D modeling of avatars.
- Prototype of chess game environment in oculus.
- Interactive startup menu of the game.
- Multiplayer mechanics.

3. Goal Achieved

Environment

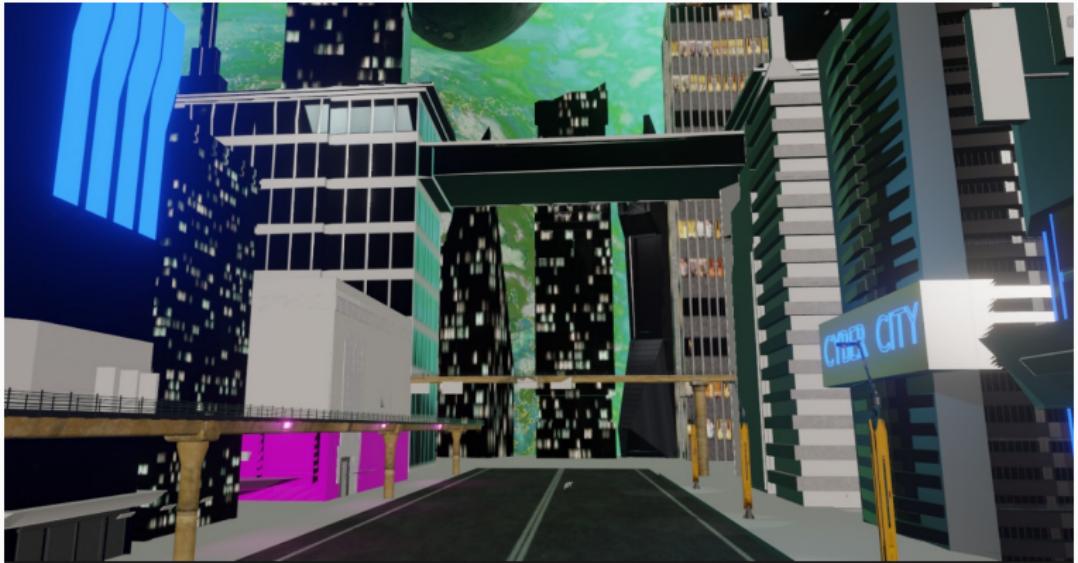


Figure 2: Metaverse Version 1

Environment-2



Figure 3: Metaverse Revamped

Chess Game

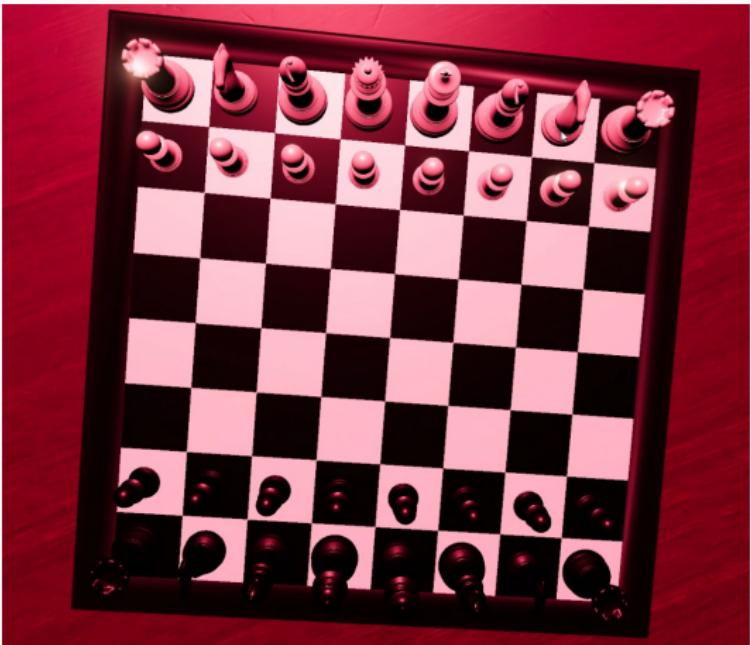


Figure 4: Chessboard

4. UML Diagram

Use Case Diagram

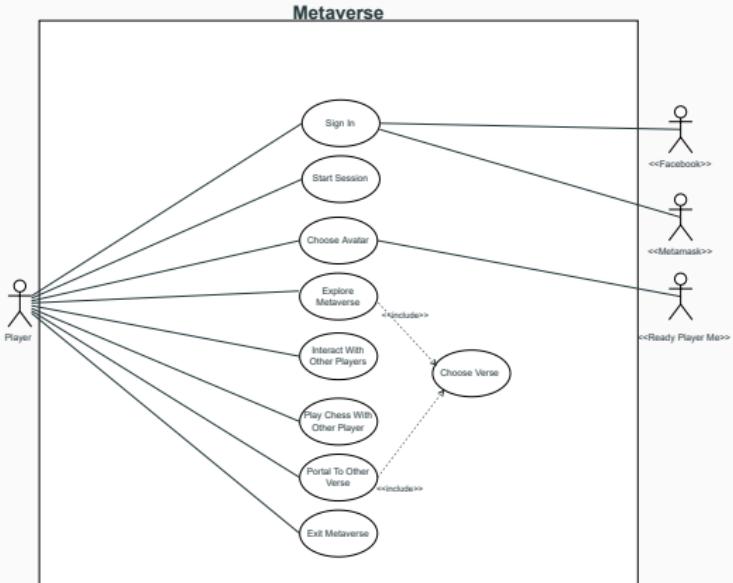


Figure 5: Use Case Diagram

Swimlane Diagram

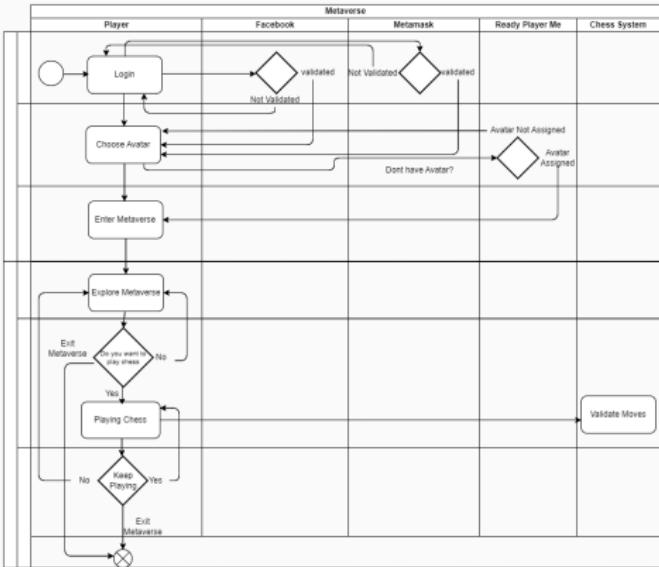


Figure 6: Swimlane Diagram

Component diagram

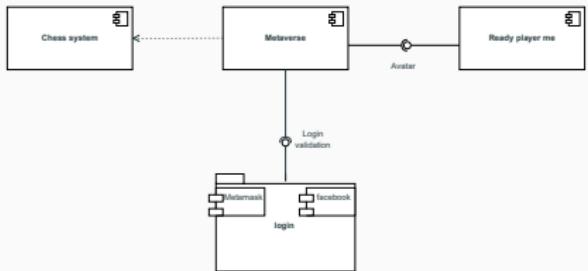


Figure 7: Component Diagram

Class Diagram

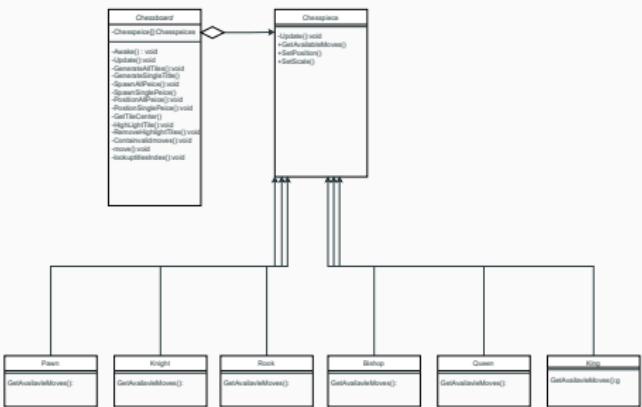


Figure 8: Class Diagram

5. Demonstration of Environment

Demo



6. Technical Difficulties Faced



- Logical movement of chess pieces on mouse input.
- Post processing of the environment.
- Avatar integration and its movement in the environment.
- Integrating chess, environment, and avatar scripts on a single project.

7. Technical Difficulties Resolved

Resolved



- Logical movement of chess pieces on mouse input.
- Post processing of the environment.
- Avatar integration and its movement in the environment.
- Integrating chess, environment, and avatar scripts on a single project.

8. Future Work

To be resolved in FYP-2



- Handling multiplayer scripts.
- Adding special moves in chess scripts such as: castling, check, promotion, and En passant.
- Integration of startup menus/UI design.

9. Gantt Chart

FYP 1 Gantt chart

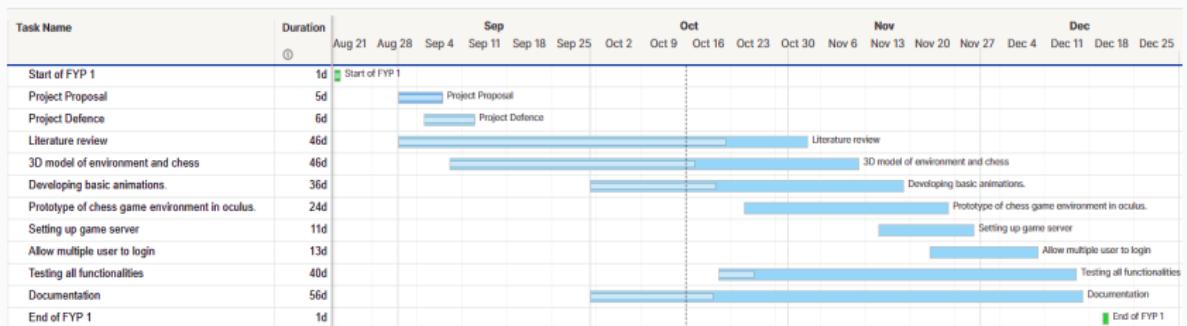


Figure 9: FYP-1 Gantt Chart

FYP 2 Gantt chart

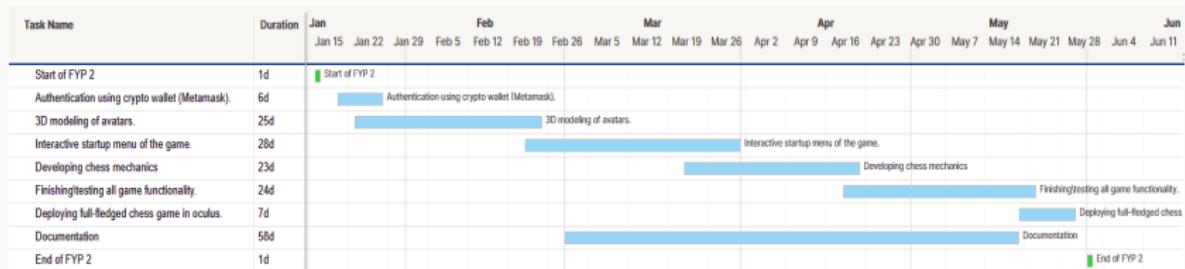


Figure 10: FYP-2 Gantt Chart

10. Teamwork

Teamwork



Task Name	Duration	Start	Finish	complete	Assigned To
①					
Start of FYP 1	1d	08/22/22	08/22/22		
Project Proposal	5d	09/01/22	09/07/22	100%	M.Abdullah, Nauman Tasawar, Abullah Tahir
Project Defence	6d	09/05/22	09/12/22	100%	M.Abdullah, Nauman Tasawar, Abullah Tahir
Literature review	46d	09/01/22	11/03/22	80%	M.Abdullah, Abullah Tahir
3D model of environment and chess	46d	09/09/22	11/11/22	60%	Nauman Tasawar, Abullah Tahir
Developing basic animations.	36d	10/01/22	11/18/22	40%	M.Abdullah, Nauman Tasawar, Abullah Tahir
Prototype of chess game environment in oculus.	24d	10/25/22	11/25/22	0%	M.Abdullah, Nauman Tasawar, Abullah Tahir
Setting up game server	11d	11/15/22	11/29/22	0%	M.Abdullah, Abullah Tahir
Allow multiple user to login	13d	11/23/22	12/09/22	0%	Nauman Tasawar
Testing all functionalities	40d	10/21/22	12/15/22	10%	M.Abdullah, Nauman Tasawar
Documentation	56d	10/01/22	12/16/22	25%	M.Abdullah
End of FYP 1	1d	12/20/22	12/20/22		

Figure 11: Teamwork Distribution

Thank you for listening!

Any Questions?