



**Knight Foundation
School of Computing
and Information Sciences**

School of Computing & Information Sciences
Spring 2023 Senior Design Project



IFTTT

Digital Twin Room Emulator and Asset Manager

Students: Michael Charran

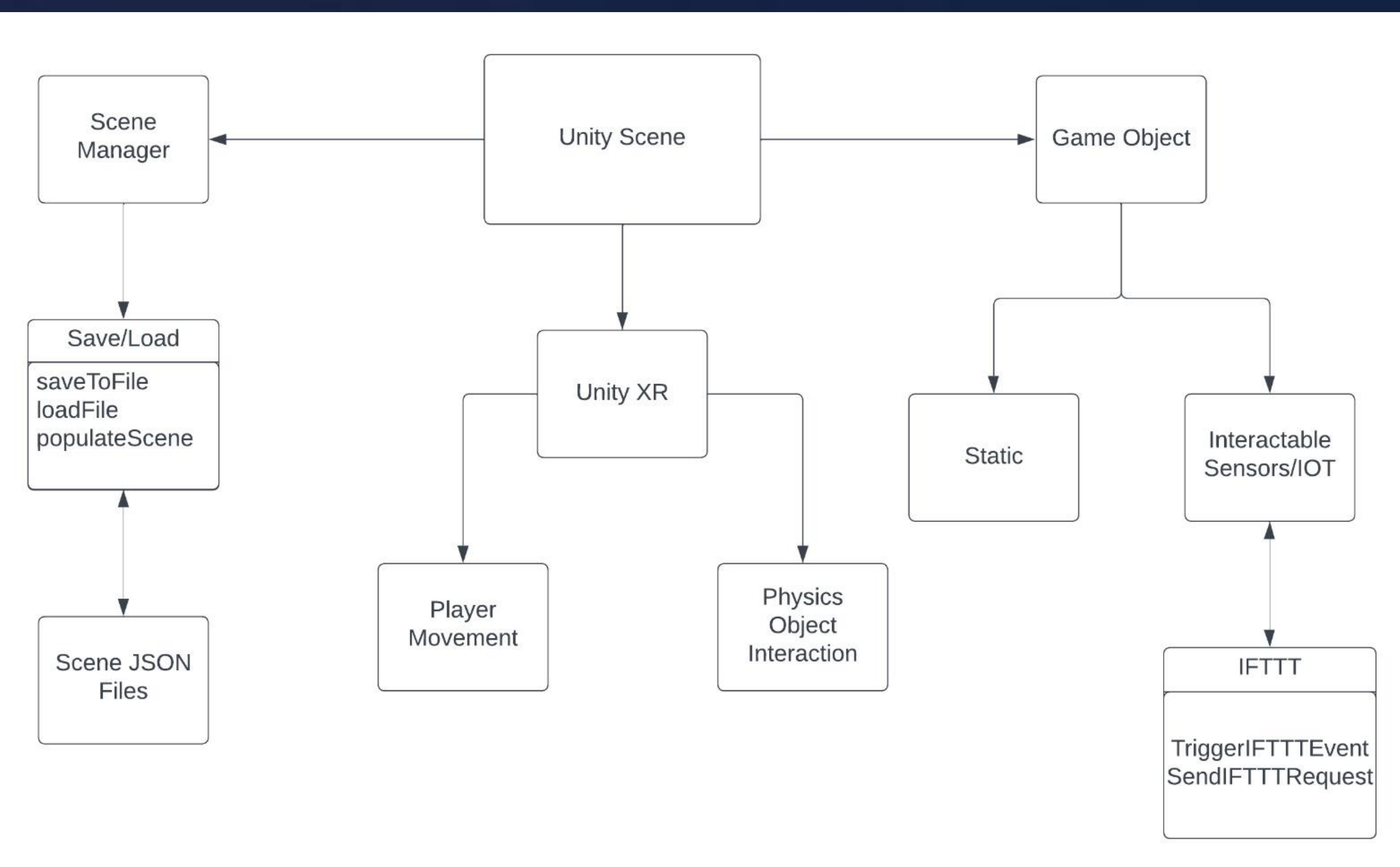
Mentor: *Mr. Steven Luis*

Instructor/Faculty: *Dr. Masoud Sadjadi*, Florida International University

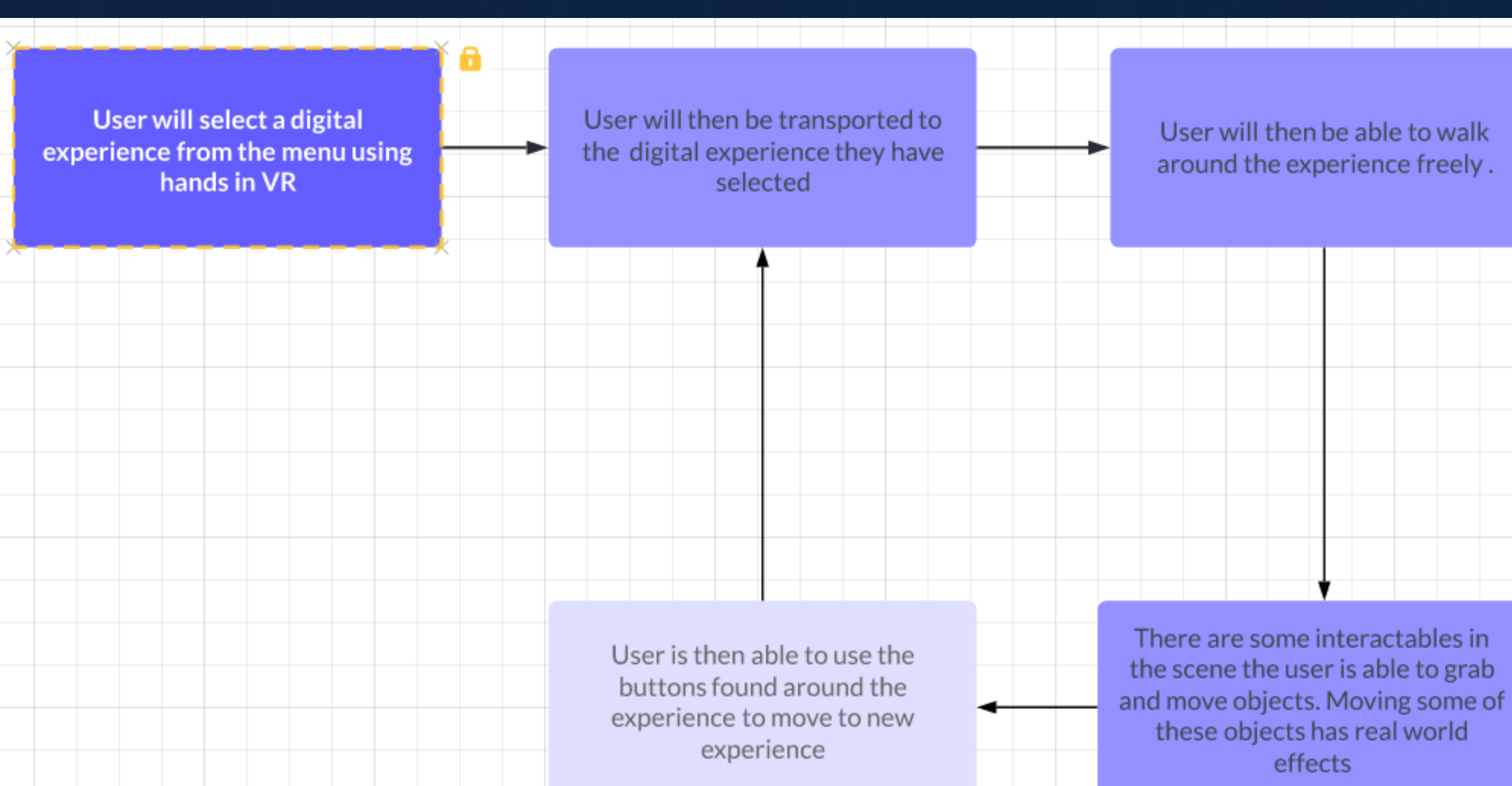
PROBLEM

- Create a digital experience that interacts with objects in the real world
- Adding interactivity to objects

SYSTEM DESIGN



VERIFICATION



CURRENT SYSTEM

The current system allows for the user to move freely around 3 separate virtual environments that were made. A computer lab, a physics lab, and a chemistry lab. The player is able to interact with some passive objects like laptops and some other objects like buttons that will move the player from one experience to another seamlessly.

IMPLEMENTATION

- Unity Version 2021.3.17.f1
- C#
- IFTTT
- GitHub

SUMMARY

After completing this first iteration the project provides the user with a virtual reality experience that allows the user to traverse different virtual visualizations of places at FIU. The user is also able to use devices in the virtual environment like a lamp that will have effects on a lamp in the real world using IoT switches.

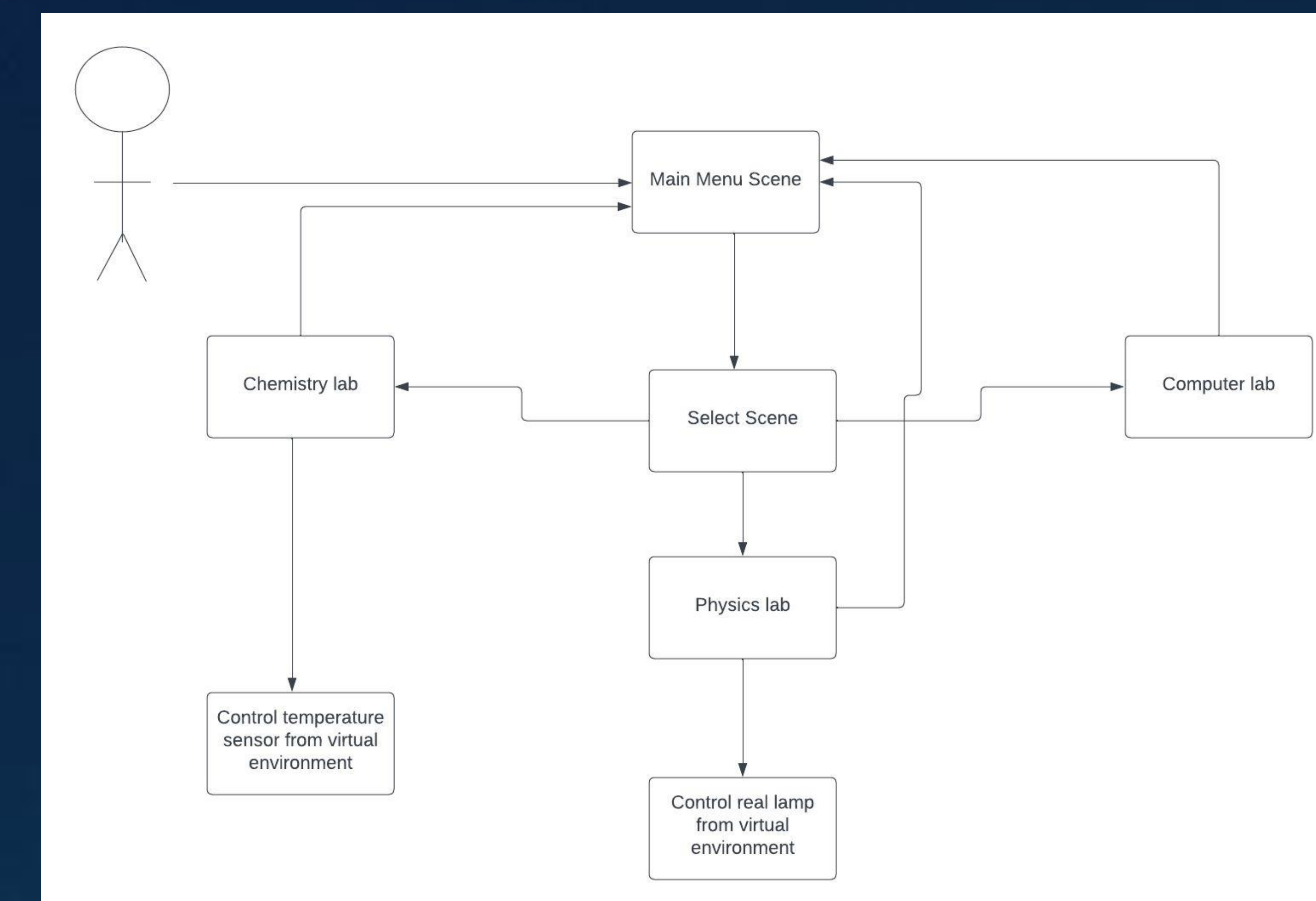
ACKNOWLEDGEMENT

The material presented in this poster is based upon the work supported by Steven Luis We thank Steven Luis for his assistance and mentorship that we received throughout the senior design project.

REQUIREMENTS

- Unity version 2021.3.17.f1 or any other Latest Stable Release
- Oculus Quest VR Headset
- GitHub

OBJECT DESIGN



SCREENSHOTS

