I wanted to build a maze puzzle game using match two game mechanics that will open doors in the maze for a certain amount of time before closing again and restarting the puzzle. The theme of the App Jam was Guide Opponent Restricted. I added a map of the maze on the walls that act as a guide for the player. That's if they can figure out where they are. The maze is the opponent

I used the Unity Engine to build my application due to the engine’s ability to rapid prototype. I was going to use the prefab feature to build out levels rapidly from basic assets created using Blender for models and GIMP for my textures. I build the game to run on the Samsung Gear VR using Android API-26 Oreo and a Samsung Galaxy s7 Edge and utilizing the Oculus SDK included inside Unity.

Before I jumped right in and started building the application, I wanted to make sure I time myself and keep an eye on the 42-hour limit of the App Jam. I used the Harvest tool to time my work. It was recommended in last week’s Webinar session by Matthew Wright and it made the process of timing my project very easy. I created a project for the app jam started and stopped the timer as I worked the past week. Everything runs in my browser and there is a free trail available that gives small projects the ability to track time.

I started my design on paint, drawing out the map and objects I wanted to place in the maze. I started with 6 different objects, but when down to 4 quickly due to the time constraint on the App Jam. I wanted to make the halls of the maze look very similar and the doors hidden in the walls too make it harder to solve. I used the MainMenu Kit included with Unity to get a basic UI up and going and give the user a way to restart the map if needed or quite to main menu.

I made nine game objects in the end to use in Unity's prefab system and started building different combinations of pieces to place together and form a maze. I utilized C# as my scripting language and VS code as my compiler for Unity. Coding the project went well. Getting done what I needed to was easy as loads of documentation on Unity C# programming is available online. Creating my animations inside unity and using mechanism made my few animations I needed easy to create as I made sure during the asset creation process that my pivots were set to correctly.

During the development I picked up area’s where I could approve on especially time and scope management. Even though I had the tool to time my time work, I found that my initial planning around time allocation per task was not good due to the scope of what I wanted to achieve. I also found myself refactoring code for long periods of time and struggled on getting the aesthetics done at the end.  I ran out of time to test on GearVR and ended up not porting for VR at all. I did do a build for Android but didn't have enough time to test the application enough to confirm stable frame rates and that all inputs worked correctly.

In the future I need to spend more time on planning my approach. I will need to make sure the objectives I set for myself has enough time set aside to accomplish them and make sure their scope fits the constraint. The correct execution of my small objectives will lead to the completion of my main objective and lead to my vision being executed the way I intended it to be without design, mechanics or platforms being sacrificed to complete the application. I will also need to refresh my programming skills as I fell down some traps around efficiency and script inheritance flow I could have avoided if I planned my approach a lot better.

I ended up achieving my goal of getting prefabs to work for me. I got my prefabs to contain all the scripts and objects needed to make it function as intended with minimal info needed to be assigned in the editor. In the end when I ran out of time, I could place my prefabs inside a level and quickly get it all to run as intended.

I will need to plan better in the future around time and objectives that I want to achieve to make sure I am able to execute my creative vision the way I intend it to be. Planning well within my scope is the key.

Down below is a link to my Youtube video made of the App Jam of week 3:

https://youtu.be/SsUUyYhOU6U