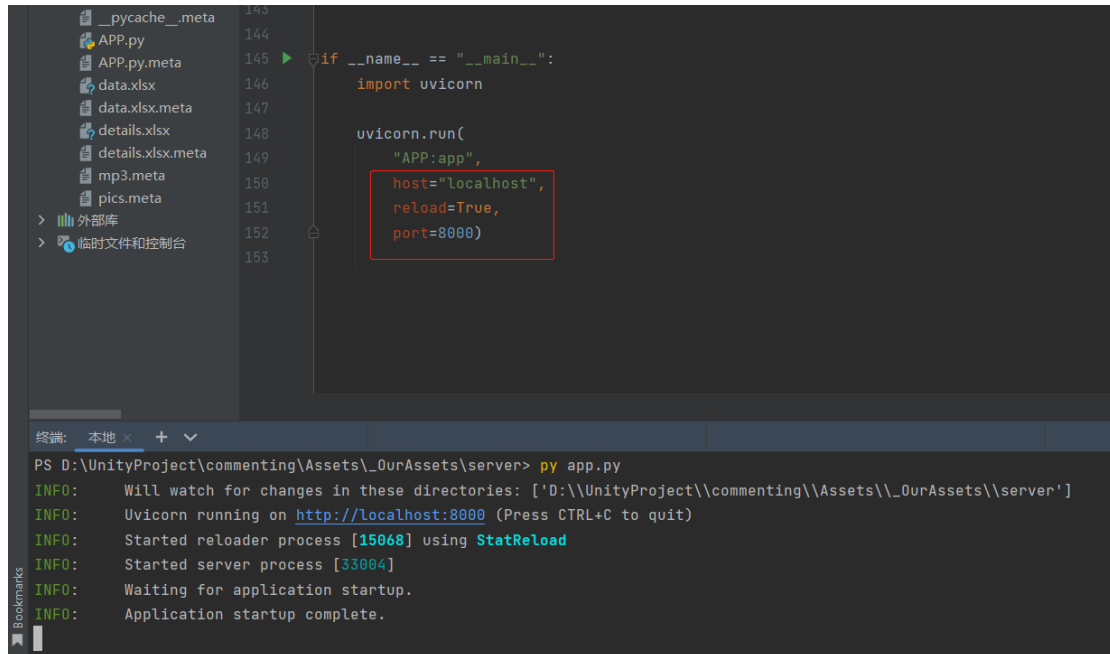# Guide for IARN demo

Jerry Wang, Shirley Xu, James Yu

Step 1: Check the settings

Open app.py in Assets/_OurAssets/server/APP.py. Change the server IP and port if you want. The server will be operating on localhost:8000 as default.
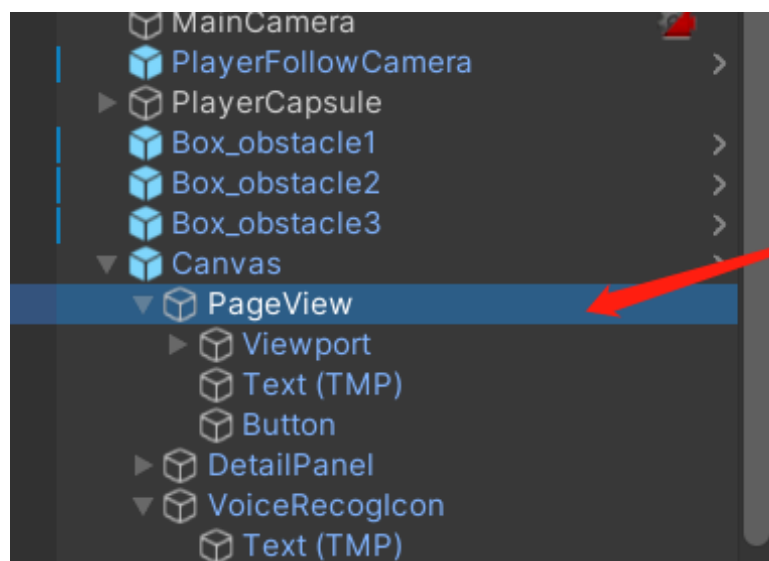

Return to Unity. Find object "PageView" in "Canvas".

Change the IP and port if necessary.

Other settings:

① : The prefab of a single cell.

Located in Assets/_OurAssets/UIAssets/_Prefabs/CellPref.prefab

② : Enable this to fix the problem that the voice recognizer cannot recognize the English pronunciation of the keywords (e.g. "B zero one").

③ : Set the confidence level of recognizer. Higher level leads to stricter recognition.
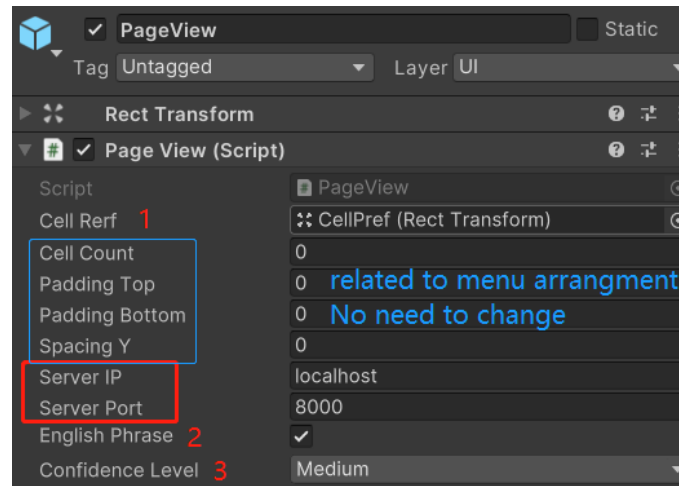
Step 2: Start the game and play

Start the game, and it should run with the menu initialized successfully. You can look around with your mouse.
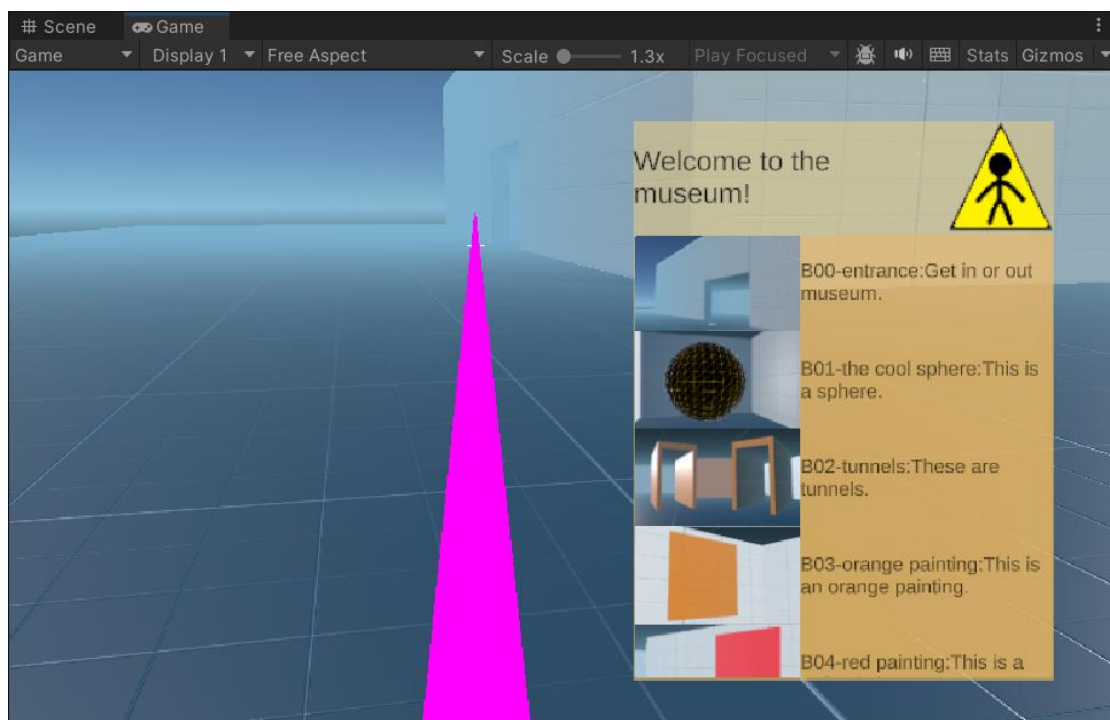
Use WASD to walk around, SPACE to jump, and Left SHIFT to sprint. Press M to toggle on or off the menu. When running in editor, you usually need to press M twice to have both menu and cursor shown in the game.

Click on the images to set destinations. The message bar will tell you what you are being navigated to now.
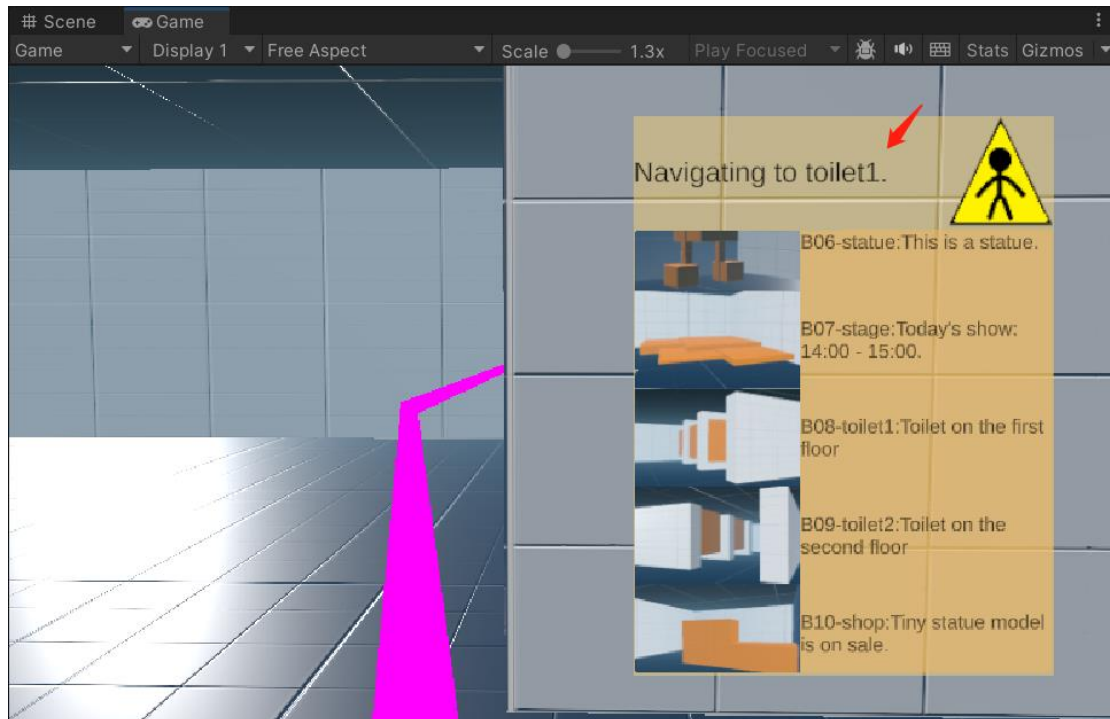
Press and hold T to start voice recognition. You can release the key after the recognition is completed. For the keyword in the picture. Say "B zero seven".
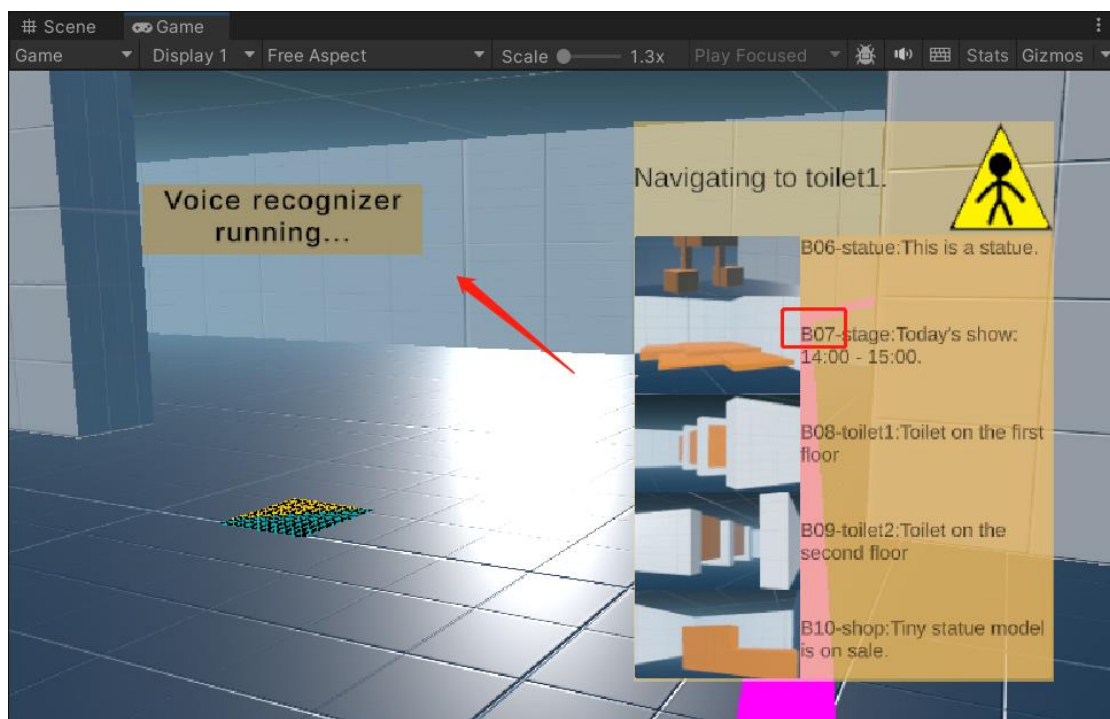
The destination is changed to the stage successfully.
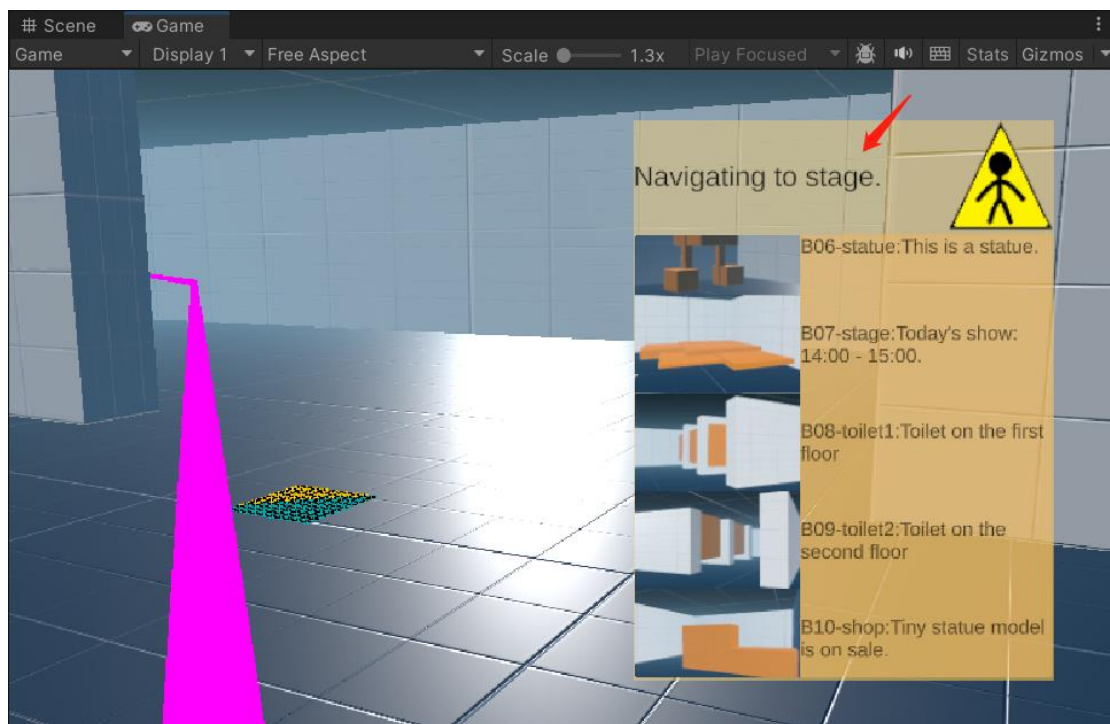
Click on the icon in the upper right corner of the menu to start crowd simulation. It will generate numerous models that can affect the navigation line within single generation.
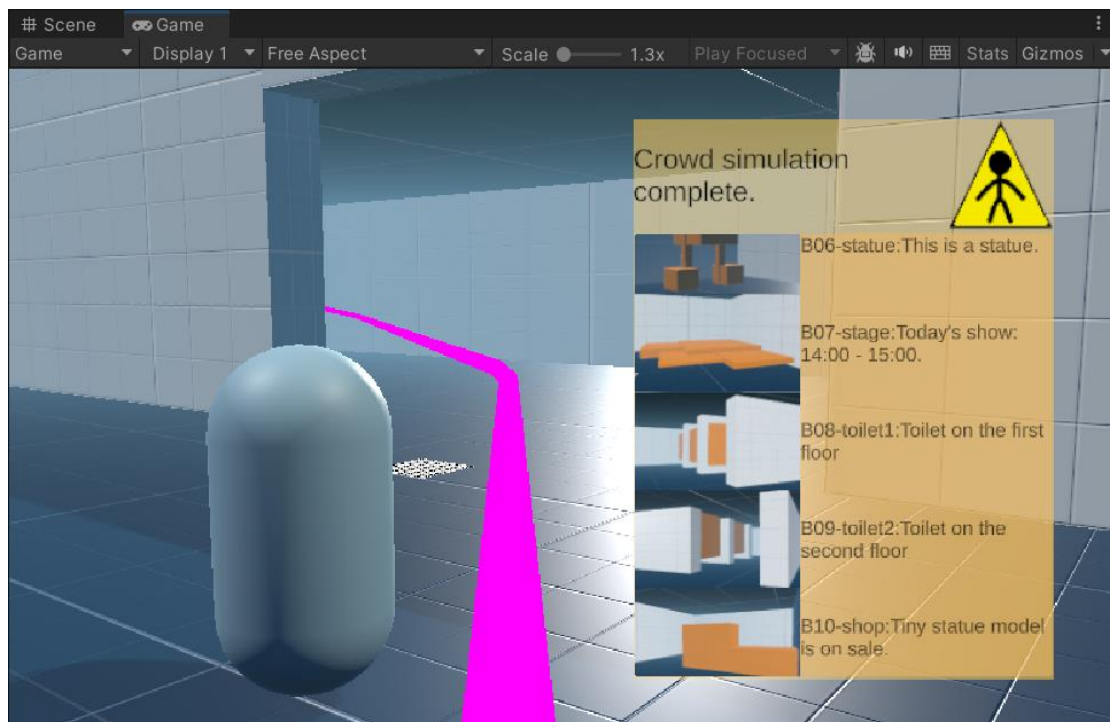
Every destination in this menu has a virtual marker near it in the scene. For those near the exhibits, you can step on them to toggle the detail panel. The audio (provided by Google translate) will also start playing.

Note that if you leave the trigger area early, the audio will stop playing immediately.
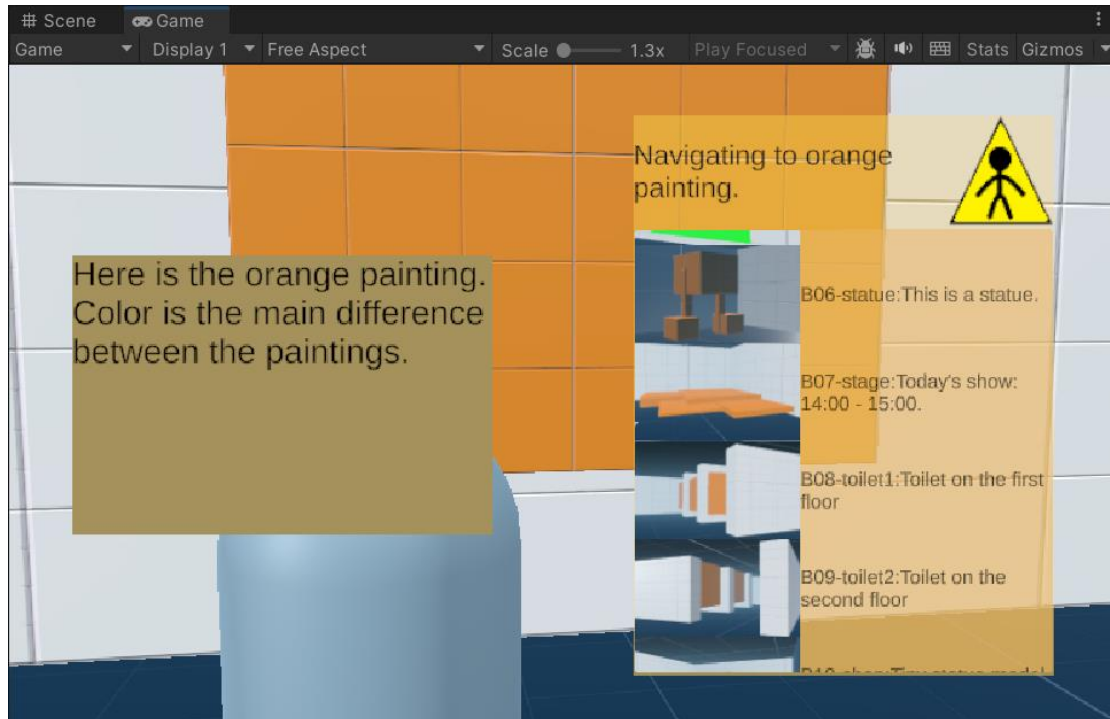
Possible Problems

1. Why does the menu look like this?
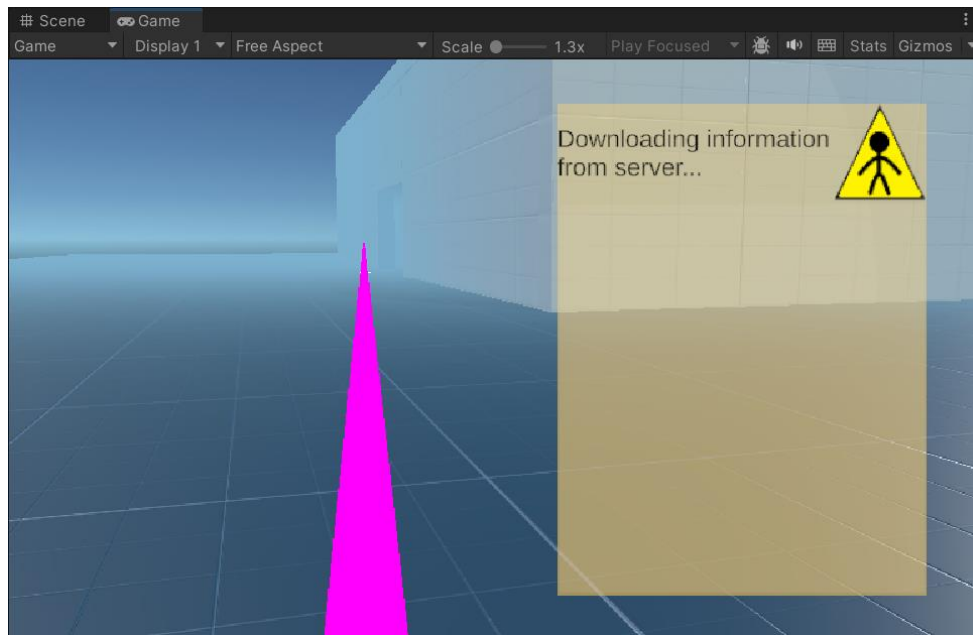
It is because the UI cannot access the server. There isn't too much data in our demo, so the downloading process should be very quick. Please check your setting of server IP and port. It is recommended to use your browser to check whether the server is available.

Another possible reason is that you haven't allowed http downloading. It is in the player setting. Go Edit->Project settings->Player and switch "Allow downloads over HTTP" to "Always allowed"
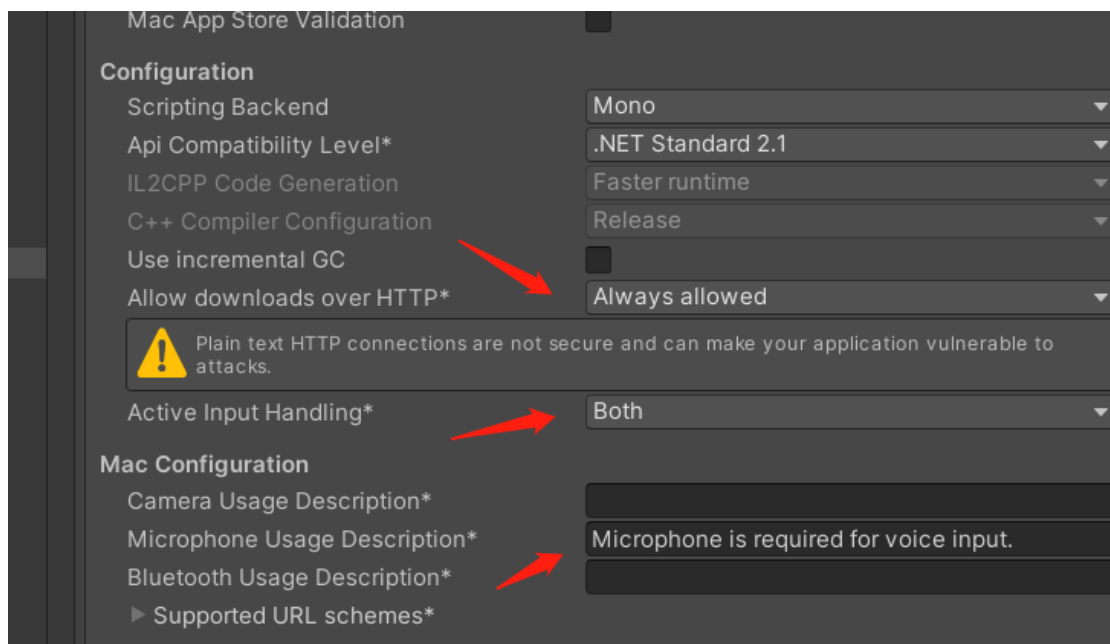
2. I can't control the player.

This demo is based on the starter assets of 3D First-person-view demo provided by Unity, which use the new input system for player control. However, there might be some operations which still use the old system in our demo, so please change the active input handling to "Both" (shown in the picture above)

3. I have problems with the voice input.

Voice input is based on UnityEngine.Windows.Speech package. You may have to authorize Unity to use your microphone if you are using a Mac OS (shown in the picture above). Then the microphone usage description must be edited. Also, the voice input works well on Windows 10 and 11. We are not sure whether it is valid for other OS. Sorry.

4. I open the menu, but I can't find the cursor.

In the editor, every time you click and enter the game view from outside, the cursor will be hidden. You can press M twice to show both and menu and the cursor.

5. Why the guide line suddenly changes and tells me to go back?

It is because a blocker blocks the original passage or open a shorter one. The path will remain walkable all the time. If you are right in front of the blocker. You can wait until it disappears again and go through the area.

6. I don't have the details displayed when I step on the marker.

Only the markers near exhibits have details. In other words, the markers for exhibits (from the sphere to the statue in the menu) can trigger detail request, while others like the entrance and the toilets have nothing to show.