Here is my plan of developing a 誰是臥底 webserver

Can you formulate what to be develop, what is the logic behind it, what technology to be use and a plan of developing this?

Webserver that can be deploy via docker.

Support room creation. User can join with QR code.

The first time a PC access the landing page. It will ask what type of question you wanted to use.

<server logic> The type is defined for each question bank and the banks are saved in the server. It also allows uploading a csv file for custom question bank. It will still allow you to continual even if no type is selected, it will just include all the question in the server.

After the question type is selected, the webpage will ask how many 玩家, 臥底 and 白板 will be in that game.

<server logic> 臥底 has to in range of <1,floor(玩家/2)> and 白板 is in range of <0,floor(玩家/2)-臥底> . After that A Room (section) is created and one of the questions is randomly picked form the selected question bank, and player ID is generated according to the number of 玩家, the identity is then be defined for each player. The method of defining identity is generate a random floating number in range of <0,1> and the play who has the smallest number will be 白板, then 臥底, then 平民. In case of the same number and in the edge case, i.e. Two or more ppl has the same number but it is assigned to one identity (say 白板). These users will be generated another random floating number in range of <0,1> and the player who has the smallest number will be assigned to 白板 and other will be in 臥底.

In the questions, there will be two similar words. The word of 臥底 is first be defined by using the same method for player. (the random number method).

After this, A User array, which contains section ID, user ID, User identity, words, username(empty at the moment), image path (empty at the moment), is saved to ./<section ID>/<section ID>/.json.

 A qr code which embedded with the webpage address and the section ID is generated and being show on screen.

玩家 can join by scanning the qr code and it will bring them to take a picture (or use emoji), create user name (can be generated randomly) and showing the assigned word (With option to hide).

<server logic> 玩家 ID is assigned to 玩家 by the sequence of finished photo taking and naming. The image is uploaded to ./<section ID>/<player ID>.jpg. The user ID is also saved to cockie on 玩家's device.

In the PC, every time a 玩家 finished setting their name and taking pictures, a new icon with that picture and the name is appeared at the bottom of the screen. The middle is the qr code and bottom is the user. For the slot that don't have user joined yet, put a question mark on icon and -/- in name.

Once every slot has been filed. The game starts. It will randomly pick a 玩家 (except the last one) to be the first speaker. This message will appeared for 5 seconds. Then the screen will show all the 玩家's name and picture as well as the remaining numbers of 白板, 臥底, and 平民, along with a 投票 button. This is call gaming page.

For voting, there will be a 投票 button in the screen. When it is being hit, a vote count will appeared at the bottom each 玩家 and each 玩家's device will have everyone's name and pictures. 玩家 can pick whose he wanted to vote out. Every time a 玩家 finalize the vote, the vote count under each 玩家 in PC screen will be updated and the one who have voted will have rainbow around it. When all the 玩家 finished their vote, the one who have the large vote and is not 白板 will be voted out and his device will show "出局!" and the questions and identity will show in the bottom. If he is 白板, then he can guess the question of 平民 on his device, if that is a match, 白板 win. In case of the count is equal, Then no one is 出局. The screen will say "平票" for 5 seconds then return to gaming page.

When there was a 玩家出局, it will calculate the remaining 臥底 and 平民+白板.

If 臥底 =平民+白板, then 臥底 win. The screen shown 臥底勝利! And show all the 臥底's image and name.

And If 臥底 = 0 &白板!=0, the remaining 白板 can guess the question. The screen will show 白板努力中! If there is a 白板 matches 平民's question, the screen shown 白板勝利! With the one who successfully guess 平民's question. If no one hit 平民's question, then the screen shows 平民勝利 with all the 平民 (both 出局 and remaining) image and name.

And if 臥底 = 0 &白板=0, the screen shows 平民勝利 with all the 平民 (both 出局 and remaining) image and name.