**Observation Process and Summary**

**1. Observation Preparation:**

(1) Participant Selection：I selected my landlord Linda and two neighbors with their own gardens, Cindy and Sandra, to participate in the website usage and testing. All of them have garden management experience, and I observed their interactions and recorded feedback.

(2) Task Assignment: I provided each participant with a task list, which included uploading photos, using the simulated 3D garden tool, and experimenting with the Collaborative garden design feature.

**2. Setting up the observation：**

(1) Device Selection：Since our project is primarily presented through a web interface, the observation process required users to perform tasks directly on the webpage. I observed their interactions with the website and collected feedback during their operation without intervening.

**(2) Observation Record：**

**Linda:** Linda opened our website for observation and was satisfied with its clean layout. However, she encountered difficulties while uploading photos and didn’t understand why the uploaded images didn’t appear in the system. After I explained that it was a simulation feature, she was a bit surprised. She showed great curiosity and interest in the 3D garden design feature but noted that the tool lacked customization options. Linda expressed a desire for more detailed control over adjusting plant size and growth angles.

**Cindy：**Cindy is quite familiar with computers. After quickly browsing the page, she began exploring the features immediately. She understood the simulation functions, collaborative garden design, and photo upload without any issues and could even predict how certain features would work. Cindy found the map function promising but thought it would be more helpful with a filtering or categorization system, such as sorting tools by type (e.g., tools, seeds). She also liked the idea of designing gardens collaboratively. Overall, Cindy suggested enhancing search and filtering features for greater efficiency.

**Sandra:** Sandra quickly understood the upload feature and wanted to try the "Collaborative Design" function because she loved the concept of planning a garden with others. She even invited other community members to join her design but was disappointed that the feature wasn’t fully implemented. Sandra expressed the need for more social interaction tools, such as real-time chat or voice communication, which would allow users to communicate while collaborating, making the process more efficient and engaging.

**3. Observation Results**

Linda, Cindy, and Sandra each completed the assigned tasks while I observed their reactions and difficulties.

（1）Linda struggled with the photo preview after uploading and found the 3D design tool lacking customization. She questioned the feature’s intuitiveness and wanted more options.

（2）Cindy quickly adapted but noted the lack of filtering options for garden tools and felt enhancing this system would improve efficiency.

（3）Sandra was excited about the collaborative design feature but disappointed by the absence of real-time chat or voice interaction, suggesting it would improve collaboration.

**4. Observation Summary:** During this observation, Linda, Cindy, and Sandra each completed their assigned tasks, showing different reactions. Linda was confused by the lack of a photo preview and wanted more customization options for the 3D design tool. Cindy quickly adapted but suggested adding a tool filtering feature for efficiency. Sandra was highly interested in the collaborative design feature but was disappointed by the lack of real-time interaction, recommending the addition of chat or voice functions. Overall, participants recognized the potential of the features but offered suggestions for improvement.