Project Overview – Together, Apart

1. Artist Statement

Together, Apart is a shared virtual home experience designed for long-distance friends, families, and couples. The project places users inside a familiar domestic space where they can move freely, interact with everyday objects, and engage with the environment through simple actions such as opening doors, turning lights on and off, and handling personal items. Rather than focusing on goals or competitive gameplay, the project emphasizes presence, atmosphere, and ordinary interaction.

This work explores how virtual space can support emotional connection when physical proximity is not possible. By centering the experience around small, familiar actions, Together, Apart aims to recreate the feeling of "being together" without requiring constant conversation or structured activities. The project treats shared space itself as a meaningful form of interaction.

Together, Apart matters because many existing digital platforms prioritize communication efficiency or entertainment over emotional subtlety. This project instead investigates how calm, low-pressure virtual environments can foster intimacy, comfort, and connection, offering an alternative way for people to maintain relationships across distance.

2. Success Criteria

A finished A level version of Together, Apart will meet the following criteria:

- Players can navigate the environment smoothly using first person and third person controls
- Core interactions (object pickup, doors, lights) function reliably and intuitively
- The environment feels cohesive, stable, and emotionally intentional
- The experience clearly communicates its focus on shared presence
- The project demonstrates technical stability and thoughtful scope management
- Set reward system and have goals for the game
- Full implementation of multiplayers system and stable interaction between players

3. Audience and Context

The primary audience for Together, Apart is long distance couples, friends, and families who want to spend time together in a casual and low pressure way. The project is designed for at home use on a personal computer and is intended to be experienced informally, similar to hanging out in the same room rather than completing a structured activity.

The context of use emphasizes comfort and familiarity, allowing users to engage with the space at their own pace without explicit goals or time pressure.

4. Research Summary

The development of Together, Apart is informed by research on digital social spaces, reward systems, and motivation in interactive environments. Existing virtual social platforms such as Animal Crossing, VRChat, and other online co presence experiences demonstrate that shared space alone can foster connection, but also show that light structure and optional goals can help sustain long term engagement.

Research on reward systems in games suggests that small, intrinsic rewards such as environmental changes, shared accomplishments, or progression tied to exploration can enhance motivation without introducing competitive pressure. Rather than traditional point based or competitive rewards, this project explores subtle, cooperative rewards that reinforce togetherness, such as unlocking shared interactions, triggering environmental changes, or completing small collaborative goals.

Incorporating goals into Together, Apart is intended to provide gentle direction rather than rigid objectives. These goals function as optional prompts for shared activity, encouraging players to interact with the environment and each other while maintaining the project's calm, low pressure tone.

Additionally, research into multiplayer interaction emphasizes the importance of stability, synchronization, and clarity of shared actions in maintaining immersion and trust between players. This informed the decision to prioritize a full implementation of a multiplayer system with stable player interaction as a key future milestone. Ensuring reliable movement, object interaction, and environmental synchronization is critical to preserving the emotional experience of shared presence.

Together, these research areas support the project's evolution from a single player prototype into a shared, goal supported multiplayer experience that balances emotional subtlety with sustained engagement.

5. Design Document

The design of Together, Apart is structured around creating a stable, emotionally intentional shared virtual environment that can support multiplayer interaction while remaining calm and accessible. The project is built in Unity, with environmental assets modeled in Blender and imported as optimized prefabs to ensure consistency and performance.

Player Movement

The project supports both first-person and third-person navigation. Movement and camera controls are designed to feel smooth and intuitive, allowing players to explore the space naturally without disorientation. This directly supports the success criterion of reliable navigation and comfort.

Interaction System

Object interaction is implemented through raycasting, allowing players to pick up, examine, and release objects. Environmental interactions such as opening doors and toggling lights are implemented using state-based logic to ensure consistent behavior across sessions and, in future iterations, across multiple players. These systems address the success criteria related to reliable and intuitive core interactions.

Multiplayer System

Multiplayer functionality will be implemented using Unity Netcode for GameObjects with a client server architecture. Player movement, object interaction states, door states, and lighting states will be synchronized across clients to ensure a shared and stable experience. Particular emphasis will be placed on interaction clarity and synchronization stability to meet the success criterion of full multiplayer implementation with reliable player interaction.

Reward and Goal System

Rather than competitive or score-based rewards, the project will incorporate subtle, cooperative rewards tied to exploration and shared activity. Examples include unlocking environmental changes, revealing new interaction opportunities, or completing small collaborative tasks. Goals are optional and designed to gently guide interaction while preserving the low-pressure tone of the experience.

Design Principles

- Emotional presence prioritized over competition
- Simple, familiar interactions to reduce cognitive load
- Modular systems that allow iterative expansion
- Technical stability as a foundation for emotional trust

6. Production Timeline (Next Semester)

Phase 1: Pre-Production & System Planning (Weeks 1-3)

- Refine interaction and multiplayer design goals

- Finalize reward and goal system structure
- Set up networking framework and test basic connectivity
- Review existing assets and interaction systems for multiplayer readiness

Phase 2: Core Multiplayer Implementation (Weeks 4-7)

- Implement networked player movement
- Synchronize environmental interactions (doors, lights)
- Implement basic shared object interaction
- Conduct stability testing with multiple players

Phase 3: Reward & Goal System Integration (Weeks 8-10)

- Implement cooperative reward triggers
- Add optional shared goals tied to exploration and interaction
- Balance rewards to avoid competitive pressure
- Test goal clarity and emotional impact

Phase 4: Testing & Iteration (Weeks 11-13)

- Multiplayer stress testing and bug fixing
- Interaction clarity refinement
- Performance optimization
- User testing focused on emotional experience and togetherness

Phase 5: Polish & Final Presentation (Weeks 14-15)

- Visual and interaction polish
- Final stability pass
- Documentation and presentation preparation
- Final build export

7. Self-Teaching Plan

To complete Together, Apart at an A-level standard, I identified the following skills to learn or further develop. Each skill directly supports the project's technical and experiential goals and will be developed incrementally throughout the next semester.

1. Multiplayer Networking in Unity

Multiplayer functionality is a core future goal of the project. Understanding networking concepts such as synchronization, ownership, and client–server architecture is essential for creating stable and shared interactions between players.

Plan: Learn and implement Unity Netcode for GameObjects, beginning with basic player synchronization and gradually extending to shared object interaction and environmental state synchronization.

2. Networked Interaction Design

Interactions that work well in single-player often require additional logic in multiplayer contexts. Designing interactions that remain intuitive and stable across multiple players is critical to maintaining immersion and emotional trust.

Plan: Refactor existing interaction systems to support networked state changes, focusing on doors, lights, and object pickup as initial test cases. Iterate through testing with multiple players.

3. Reward and Goal System Design

Introducing goals and rewards requires careful balance to avoid disrupting the project's low-pressure tone. Learning how to design subtle, cooperative reward systems will help sustain engagement without introducing competition.

Plan: Research intrinsic reward systems in games and implement simple, optional goals tied to shared exploration and interaction. Test different reward types to evaluate their emotional impact.

4. Performance Optimization and Stability

Multiplayer experiences require additional performance considerations. Ensuring stability, smooth interaction, and consistent behavior across clients is necessary for a successful shared experience.

Plan: Profile the project during multiplayer testing, optimize prefabs and interaction logic, and reduce unnecessary network traffic where possible.

5. Environmental Storytelling and Emotional Design

The emotional effectiveness of Together, Apart relies on atmosphere and subtle cues rather than explicit narrative. Strengthening environmental storytelling will enhance the sense of presence and connection.

Plan: Refine environmental layout, lighting, and interaction placement to better support mood and pacing. Incorporate feedback from user testing to adjust emotional tone.