Wholesome Haven

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CS 396 - Senior Project in Computing

Fall 2025

Vision Statement

Wholesome Haven is a self-care gaming app designed for anyone who struggles to complete self-care tasks. Self-care tasks include everyday practices that support physical, mental, and emotional health… such as brushing your teeth, drinking water, journaling, stretching, or eating a balanced diet. These are small but essential actions that help people recharge and maintain balance. People have a hard time performing self-care tasks for various reasons: they have trouble remembering to do the tasks, are unmotivated, or don't know what the best self-care tasks are. Our app, *Wholesome Haven,* emphasizes self-care while using gaming elements, helping users stay motivated and healthy in an engaging way. This app will allow users to interact with friendly, non-player characters to receive "quests." Each quest corresponds to a real-world self-care task, connecting the concept of a "task" with the familiar gaming mechanic of a "quest." Based on completion of these quests, users will receive rewards, such as new plants in a garden, a new character moving in for the player to interact with, or items to decorate their house.

To ensure the self-care tasks are effective, they will be chosen based on research from books and scholarly journal articles. One article that can be used to direct research is Gamification for Health and Wellbeing: A Systematic Review of the Literature by Johnson et al. which examines gamification in the context of technology such as websites or apps. The amount of new gameplay available in a day will be limited to prevent overuse of the app. At the end of the day, this application is aimed at promoting familiarity with and practice of activities that help users. If they leave with nothing but time taken out of their day, this app will have failed in achieving its goal. But if it helps them feel a little more cared for, proud of themselves, and supported in building healthy habits, then *Wholesome Haven* will have done what it's meant to do… be a safe, wholesome space where people can learn to take care of themselves.

Background

There are many instances of technology being used in the mental-health field. The instances that are most relevant to our project are self-care apps and video games. Self-care apps and video games are examples that show how digital tools can help people build healthier habits, stay motivated, and feel supported in their everyday routines.

One popular self-care app is the Headspace meditation app by Headspace Inc. This app focuses on meditation and is designed to reduce stress and anxiety. In addition to meditation exercises, Headspace has podcasts, music and mindfulness exercises. What makes Headspace successful is how simple and approachable it feels - the calming visuals, sounds, and guided structure help motivate people to make good self care habits part of their every day routine instead of just another thing on their to-do list.

This next app has a wider array of uses. The Finch self-care pet by Finch Care Public Benefit Corporation features a bird companion that you can level up by completing self-care tasks. The tasks vary in type and difficulty and include things like drinking water, going for a walk, and taking out the trash. Users can customize which tasks they would like to focus on, making the experience specialized for each person's needs. Finch makes self-care feel personal and rewarding by letting users care for something that grows along with them.

A game used in a clinical context is EndeavourRx, a video game made by Akili Interactive Labs. EndeavourRx is an FDA approved video game for the treatment of ADHD in adolescents. According to EndeavourRx's about page, the game is for children aged 8-17 and must be prescribed by a doctor. For those not familiar with ADHD, in an article from December 2024, the National Institute of Mental Health described the three main symptoms of ADHD as inattention, hyperactivity and impulsivity. The goal of EndeavourRx is to move through a digital course and collect items while avoiding obstacles. The game is designed to challenge motor skills while also providing distracting stimuli. The distracting stimuli helps the user learn to multitask and ignore distractions. This shows how games can be designed with real intention and care - not just to entertain, but to help users grow new skills and strengthen their focus in meaningful ways.

Out of the aforementioned technologies our most direct competitor is the Finch self-care pet. It includes gamified self-care tasks much like our apps does. However, Finch is set up more

like a to-do list and less like a game than our app is. Wholesome Haven aims to fill that space in between. It keeps the heart of self-care apps while creating a more immersive and story-driven world that feels alive, comforting, and rewarding to return to. Wholesome Haven achieves a more game-like experience through the use of non-player characters, quests, a customizable house and in-game lore. Instead of receiving a list of tasks to complete, users of Wholesome Haven will be given quests that pertain to the game world.

As previously mentioned, the review titled *Gamification for Health and Wellbeing: A Systematic Review of the Literature* by Johnson et al. examines gamification in the context of technology such as websites or apps. It provides a basis for the combination of gamification of self-care tasks and digital technology to boost health. The review highlights how rewards, progress tracking, and story elements can make healthy habits feel more fun and sustainable which directly supports our design goals.

Another relevant article is *User experiences of college students using mental health applications to improve self-care: Implications for improving engagement* by Nagar et al. details what students liked and disliked when using various self-care apps. This study shows us how important it is for self-care tools to feel gentle and personal. People are more likely to keep using an app that feels encouraging and calming rather than judgemental or overwhelming. The insights we have gained from studying competitor apps and research will help guide how we design both the look and feel of Wholesome Haven.

Normative and Ethical Considerations

As we design and build Wholesome Haven, we know that the choices we make in the design impact how people feel when they use the app. Self-care tools can become overwhelming or stressful if they're not carefully thought out, so in designing this, we are being very intentional about how everything works. Our goal is to make the app feel supportive, helpful, and kind - not discouraging, confusing, or heavy. That means basing our decisions off of our design values.

As we have continued to produce our app since Milestone 2, we've started making decisions that put these norms into action. One of the biggest things we have committed to is keeping the app low-pressure, while still encouraging users to complete their tasks. We don't want the quests to pile up, expire, or guilt the user if they don't finish them by the end of the day.

We want our app to feel encouraging, which is why we are taking Caring and Justice seriously in our design.

We also made the call to avoid comparison-based social features. Early in the semester, we talked about the idea of collaboration, but after further thought, it became clear that even subtle comparison can make a self-care app feel intimidating or discouraging. To keep our app an emotionally safe place, all progress in Wholesome Haven stays private and at the user's own pace.

We've also started building flexibility into the quest system. People's needs, energy levels, and abilities shift constantly, and different self-care tasks can impact people differently. Allowing users to decline or swap certain types of quests supports inclusivity and fairness. This will require us to update the different options for each task, which is something we can continue shaping with user testing.

Below, we share how we plan to keep these norms in mind, the challenges we might face along the way, and what could happen if we don't take them into careful consideration.

- **Cultural Appropriateness:** People come from many different backgrounds, and what feels like a positive self-care task to one person might feel uncomfortable (or even inappropriate) to another. For example, certain forms of meditation, versions of physical activity, or foods aren't universally appropriate. If we ignore these differences, users could feel left out, underrepresented, or even unintentionally hurt. To make *Wholesome Haven* welcome to everyone, we will give users the chance to set their preferences at the very beginning. And it's not just about cultural background… where someone is in life really matters too. People bring their own circumstances, challenges, and everyday struggles. What feels motivating and supportive for one person might feel overwhelming or even harmful for someone else. Life also changes, someone recovering from an injury, heading into finals week, or going through a stressful season might need very different kinds of support than they did before. That's why it's important to give users not just an initial set of preferences, but also the freedom to adjust them as their needs shift, and the tasks given to them will be relevant and respectful.
- **Transparency:** We don't want anyone to misunderstand how *Wholesome Haven* should be used. If we aren't clear on its goals, users may see it as a replacement for therapy, medication, or other types of care.That's why it will be important to clearly communicate the app's limitations and purpose: it's here to encourage healthy habits, not to act as medical treatment. Transparency also means being honest about how data is handled. If

any information leaves the user;s phone, we'll let them know and explain how their privacy will be protected.

- **Social:** Adding social features can be powerful. Done right, it can help people feel connected and encouraged. Done poorly, it can lead to harmful comparisons or unnecessary competition. To keep *Wholesome Haven* a positive space, if we were to add a social component, we would avoid things like leaderboards or statistics that pit people against each other. Instead, any social aspects will focus on encouragement, positivity, accountability, and optional collaboration.
- **Stewardship:** We want *Wholesome Haven* to support users' health, not drain them. Too many notifications, wasted battery, or endless scrolling would go against the idea of self-care. We'll make the app as efficient as possible to avoid wasting energy, and we'll set limits on game time.
- **Aesthetics:** How the app looks and feels really matters. If the design is cluttered, confusing, or overwhelming, people won't want to keep using it, no matter how helpful the ideas behind it are. Ignoring this norm could make users lose interest quickly. To avoid that, we'll keep the interface simple and easy to understand, with calming visuals and clean layouts. We'll also verify these design choices through user testing, making sure that our goals aren't just ideals but actually work for real people in practice.
- **Justice:** Everyone comes to self-care with different abilities and resources, and it's important we recognize that. Some users may have mobility challenges that make certain exercises difficult, while others may not have the budget for extra materials. If we ignore this, we risk leaving people out. To keep *Wholesome Haven* fair and inclusive, every task will have an alternative... whether that's a seated exercise option, a low-cost variation, or another accessible approach. Even if we can't include every possible alternative from the very beginning, we will build the system in a way that leaves room for new variations to be added over time. That way, the app can grow alongside its users and continue to meet a wide range of needs.
- **Caring:** Caring is what *Wholesome Haven* is all about. Without it, the app would feel empty and impersonal. This is the most important design value we have to keep in mind. Caring means building with empathy - making sure users feel encouraged and supported instead of pressured or judged. The challenge is creating quests that connect with many different kinds of people without overwhelming them. To do that, we'll write various different user stories and get feedback from user testing, letting their experiences shape how the app grows.

- **Trust:** Trust is everything. It may not be everything on its own, but without trust, caring isn't possible. If users don't trust *Wholesome Haven*, they won't use it in a meaningful way. If the self-care aspects of the app aren't well-researched, it risks becoming untrustworthy. That's why every self-care activity will be carefully chosen, backed by research, and safe to try. The tasks included will be researched as part of Evelyn's honors thesis, ensuring both accuracy and reliability.

Product Success Criteria

- **Research Basis**
    - Minimum: passes user testing and receives generally positive feedback.
    - Stretch: develop a system for quantifying success and general parameters of good / bad goals to allow for a process of adding future goals.
- **User State Storage**
    - Minimum: stored locally on device allowing for privacy and continuity.
    - Stretch: cloud account for progress and changes to be tracked across devices.
- **Self-Care Interaction**
    - Minimum: user should be able to figure out how to use it - fundamental high-priority task implemented.
    - Stretch: more tasks implemented.

Development Process

We will meet with our advisor weekly on Mondays at 6:30pm, and our team meetings will take place every Thursday at 5:00pm. In addition to these meetings, Evelyn meets with her honors thesis advisor on Fridays at 11:00am. We are continuing to use Trello as our main tool for tracking progress, assigning tasks, and keeping everyone organized throughout the semester. Team members will aim to spend 5 hours outside of meetings each week working on this project.

From a technical standpoint, the app will be largely implemented as a Flutter project, allowing it to be cross platform. Its strong integration with mobile emulators allow for apps to be run on the same virtual device across multiple developer environments, allowing all of us to run the app and make changes on our individual machines. From a design standpoint, all of our visual art…app backgrounds, NPC's, quest visuals, items…are being drawn in Procreate. These

assets are then exported, cleaned up, and added into our Flutter project as widgets or images. Because we're using a consistent design pipeline, we can update and replace artwork without disrupting the underlying code.

What We Did

While a large part of the work this past month has gone into preparing a presentation regarding the project, progress was also made on the development side of things. In simple terms, we used the systems and ideas of the previous phase and used them to create interactable objects within the app itself beyond a simple proof-of-concept. Madi mainly worked on designing the assets like the screens and NPC widgets while staying within the general theme and aesthetic of the initial app. This was in conjunction with Evie, who furthered the specifics of the app functionality, creating reward paths for users to have a sense of progress. The two of them combined have created a path forward for the app to continue in development. On the technical end of things, Landon attached method calls to NPC dialogue trees, allowing for interactions to be tracked and managed by the app. This, paired with Musa's implementation of user state tracking and the quest screen for displaying said state has opened the door for future state updates and storage. Together, they have taken the design path provided by Madi and Evie to create concrete development tasks to be implemented moving forward.

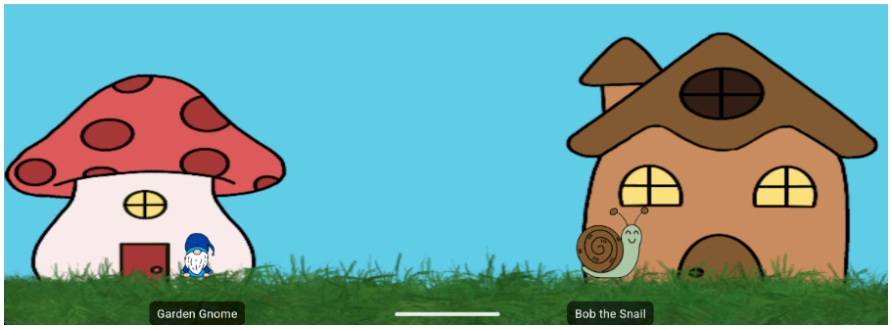
Results

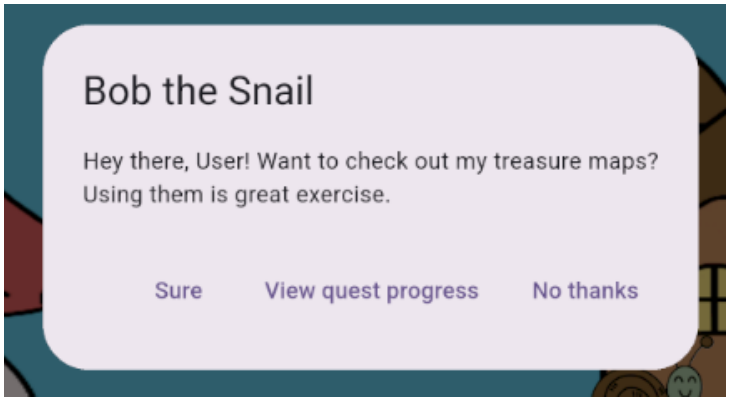
We have a functional early demo of Wholesome Haven that shows the experience we are building toward. Users can interact with NPC's (currently: Bob the Snail), receive quests, and view their progress on those quests. Below are the main features currently working in the demo:

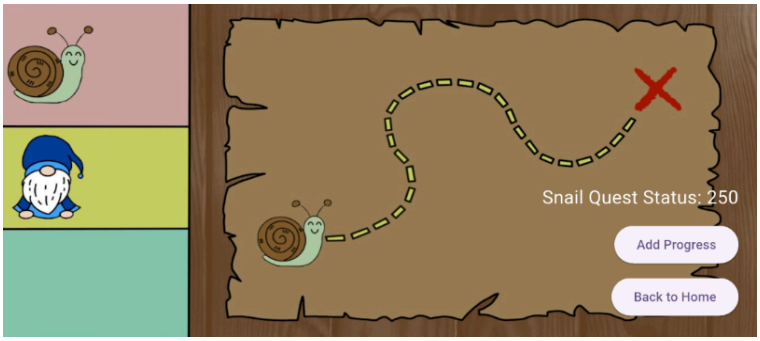
- NPC Interaction: we currently have an interaction with Bob the Snail implemented, including a full dialogue pop up with options to accept, decline, or view progress on a quest.
- Characters: we have two characters implemented in the backend… Bob the Snail, and the Garden Gnome (name TBD). Each of them has their own house, and each of them will have quests associated with them.

- Functional Quest: we have implemented our step counter quest, which allows you to manually input your steps currently, but we are working towards adding a step counter in.
- Navigable Interface: we have created an interface featuring hand-drawn backgrounds, houses, and characters that respond to user input.

Together, these features demonstrate a working foundation of Wholesome Haven's storytelling, quest mechanics, and design. While this is still an early version, we have a system implemented that allows us to easily add in new characters and screens without messing anything up. Our app has beautiful functionality that will help guide our work for the next milestone.







Timeline (Semester 1)

We're building Wholesome Haven step by step, using the course milestones as checkpoints for our progress. Each month we'll have goals, but also the chance to reflect, refine, and make sure our project is moving in the right direction.

OCTOBER 1 (Milestone 1)

- This first milestone is about laying the foundation. We will have a draft report with our vision, design norms, product success criteria, and an initial draft of how we plan to work as a team. We'll also finalize our team contract and include screenshots of our development environments, proving that everyone can run the project code and contribute.
- *Key Deliverables:*
    - Draft report including:
        - Title
        - Vision Statement
        - Normative & Ethical Considerations (potential challenges)
        - Product Success Criteria
        - Development Process (workflow, meetings, tools)
    - Team contract finalized
    - Screenshots of each member's development environment running the project code

OCTOBER 31 (Milestone 2)

- By the end of October, we'll be showing our first visible accomplishments. This milestone will add background research and competitor analysis to our report, and the "What we did" section will highlight our progress in building the app. Each team member will document their contributions to the code, and we'll put together a detailed outline of our project presentation that we'll later deliver in December.
- *Key Deliverables:*
    - Updated draft report with feedback from Milestone 1
    - Background section completed
    - "What we did" section showing one visible accomplishment
    - Each team member documents a contribution to the codebase
    - Outline of December presentation

NOVEMBER 30 (Milestone 3)

- By the end of November, our project will really start to take shape. At this point, our app should have enough features to demo—screenshots, maybe even a short video walkthrough. The report will also grow to reflect what's actually happening: how our design norms are shaping real decisions, how our workflow has evolved, and how close we are to hitting our success criteria.
- *Key Deliverables:*

- Updated draft report with feedback from Milestone 2
- Update the norms section
    - Decisions we are actually making
    - What we are currently wrestling with
- What we did
    - Accomplishments up to date
- Development Process
    - Should describe your actual process to date (with any changes)
- Results
    - At least a demo
        - Screenshots and/or video

DECEMBER 2 (Bonus: Mid-Project Report)

- This is the point where we'll share our progress more publicly. We'll give a mid-project report to our class, as well as to the CS x95 seminar, walking through what we've built so far, what challenges we've faced, and what's coming in the spring.
- *Key Deliverables:*
    - Mid-project presentation to class
    - Mid-project presentation to CS x95 seminar
    - Slides & demo showing current functionality
    - Minimum viable product display

Sources

Johnson, Daniel et al. “Gamification for Health and Wellbeing: A Systematic Review of the Literature.” Internet interventions : the application of information technology in mental and behavioural health 6 (2016): 89–106. Web.