

## Project Overview

This is a personal project I'm building in my spare time to learn mobile app development. I've chosen to create an app that I would personally use every day. A habit-based task tracker with light tower defence mechanics to gamify productivity.

The app allows users to create "quests" (detailed task lists), each with checkable goals. Completing all the goals in a quest rewards points based on the difficulty. These points can be used to upgrade a tower's attributes such as attack, health, and defence.

At three fixed times during the day, enemy waves attack the tower. The better you plan and complete your quests, the stronger your tower is when defending. At the end of the day, upgrades reset — encouraging consistent daily engagement.

## Problem

I enjoy writing detailed lists to structure my day, but my current method, using the Notes app is too basic and has become cluttered over time. I now have over 1,000 notes due to not clearing finished lists.

I've also found myself wanting a more motivating and interactive system, something that not only helps me plan but also encourages me to complete tasks. I want to feel excited to check things off, and I want my system to reset daily, so I don't get overwhelmed by the backlog.

## Researching existing solutions

I have looked over three apps available in the app store with varied levels of focus to try and get a good balance and evaluate what I like and dislike about each app.

No gamification	HabitKit	+ Simple UI + Repeat tasks - Features behind a paywall - create one big task for everything can feel a bit unnecessary
Some gamifications	Do It Now	+ Can set task difficulty levels + Reward system - No simple organisation which can make organisation of tasks take more time than it should
Fully gamified	Habitica	+ Game like feel aesthetically + Checklist for a single task - Registration required - While a character levels up to progress aside from increasing stats there is no benefit game play wise for completing tasks

## App Concept

I want to create a balanced app that uses gamification to reward consistency, without making the experience feel like a full-blown game.

Instead of long-term streak tracking or heavy RPG systems, this app resets every day. You plan your day with quests, complete them to earn tower buffs, and defend against enemy waves that hit at specific times. This encourages you to stay on top of your day in chunks (morning, afternoon, evening).

## Features

**Quest Creation System:** Add custom quests with checkable subtasks and difficulty ratings.

**Gamified Progress:** Earn points for completing quests and use them to upgrade your tower.

**Tower Defence Loop:** Defend your tower against daily enemy waves — stronger if you've been productive.

**Daily Reset:** All upgrades reset at the end of each day, making each new day a fresh challenge.

**Simple & Clutter-Free UI:** Designed to be easy to use, with no overwhelming features or unnecessary clutter.

## Technology stack

Flutter, Firebase, Firestore

Version Control Git + GitHub

## Development plans

This is a solo, learning-focused project with no hard deadlines. I plan to follow **agile principles** using a **Kanban board** (via Trello) to track my progress.

My plan is to:

- Build an MVP with core functionality (quests, points, enemy waves).
- Test and tweak the game mechanics for balance.
- Gradually add polish, animations, and UI elements.
- Reflect and document my learnings along the way.

## User Acceptance Tests

<b>Title:</b> Add quest	<b>Priority:</b> Must	<b>Estimate:</b> 5 points
As a User, I want to be able to create a new quest with subtasks and difficulty level.		
<b>Acceptance Criteria</b>  <b>Given</b> I'm on the main screen  <b>When</b> I tap the add quest button and enter details  <b>Then</b> the system should save the quest and display it in my quest list		

<b>Title:</b> Manage quest	<b>Priority:</b> Must	<b>Estimate:</b> 5 points
As a User, I want to be able to manage a current quest to add new subtasks.		
<b>Acceptance Criteria</b>  <b>Given</b> I'm on the main screen  <b>When</b> I tap on a specific quest  <b>Then</b> the details for that quest loads up on a new page and I can add more subtasks		

<b>Title:</b> Complete quest	<b>Priority:</b> Must	<b>Estimate:</b> 5 points
As a User, I want to complete a quest		
<b>Acceptance Criteria</b>  <b>Given</b> I'm I am on the main screen  <b>When</b> I have checked off all completed sub tasks on a quest  <b>Then</b> the UI displays completion of the quest and the user is rewarded		

<b>Title:</b> Buy upgrades	<b>Priority:</b> Must	<b>Estimate:</b> 5 points
As a User, I want to buy upgrades for my tower with the points I have received		
<b>Acceptance Criteria</b>  <b>Given</b> I'm I am on the upgrades page  <b>When</b> I have selected an upgrade to buy  <b>Then</b> the new tower stats and amount of points the user has is updated		

<b>Title:</b> Attack enemies	<b>Priority:</b> Must	<b>Estimate:</b> 5 points
As a User, I want to view an attack wave		
<b>Acceptance Criteria</b>  <b>Given</b> I'm I am on the main page  <b>When</b> it is time for an enemy wave  <b>Then</b> I can view the enemies attempt to attack the tower		

## Wireframes

These wireframes were built using mockplus and display the core features.

