

Statement of Purpose

We want to create a solution specifically for developers who would like to have a better understanding of their work habits/patterns with respect to time management. For example, a developer may wish to improve their ability to estimate how long a task will take, which in turn will boost their productivity through better planning. We also want to help developers who may have an issue with consistency and discipline. For example, a developer may wish to be more organized, but they may only use a task manager on-and-off, skip days, or neglect to track certain tasks for whatever reason.

Description of Solution

Our proposed solution to the problems above is to develop a simple task tracker with a gamified element to motivate the user to track tasks consistently. Our product will be similar to Trello in design, but with a timer associated with each task. The user will be able to estimate, prior to beginning the task, how long the task is projected to take. Once the task is in progress, the timer will go live until the task is marked as complete. The user will be able to compare their estimation and actual times.

Our productivity tool will also motivate developers to be consistent and disciplined in their task tracking. We do this through the gamified aspect of our product. Users are encouraged to complete tasks as they will gain currency that can be used to purchase, feed, and upgrade a collection of virtual pets. Neglecting to complete tasks will eventually result in loss of said pets. We hope this aspect encourages consistency and discipline through the reward mechanism of growing their 'zoo' and/or appealing to the users' nature through potential loss of their pets.

A brief description of design specifics is given below:

- Tasks can be created by the user
 - Tasks are created with a title, description, and estimated time for completion
 - Tasks have 3 states: Not started, In Progress, Completed, and users are able to update the status of the tasks sequentially
 - Each task has an individual timer attached to it
 - When a task is started (marked in progress), the timer counts up from 0
 - The timer can be paused and restarted by the user
 - When a task is marked as completed, the timer is stopped
 - Tasks can be canceled
- Completed tasks reward coins (fixed or potentially as a ratio of time taken/time estimated)
 - Coins can be spent two things:
 - Buying pets
 - Buying food to feed pets
 - Pets have an **invisible** 'progress' bar that is used to keep track of its growth (or death)

- Feeding pets fill the progress bar
- Reaching certain thresholds ‘grows’ the pets
- The progress bar drains over time, eventually resulting in death of the pet if not fed.

User Personas

1. Student Sam:

- Age: 22
- Education: Fresh graduate in Electrical and Computer Engineering from UCLA
- Location: Los Angeles, CA (lives with four roommates)
- Occupation: Aspiring software developer, currently job hunting
- Skills and Interests:
 - He completed a web project using React in his final quarter, sparking an interest in exploring other web frameworks.
 - He enjoys playing RPG and mobile games, often drawn to interactive, goal-oriented experiences.
- Pain Points:
 - Struggles with maintaining a steady path in learning new frameworks and working on personal projects
 - Occasionally forgets to revisit projects or loses track of how long he’s spent on specific tasks.
 - Needs a way to track and manage his ongoing projects, acting both as a reminder and a progress indicator.

Description: He is trying to learn some new frameworks to help himself get a job. He has several planned projects, but he is struggling to work on them from time to time within a steady path. He sometimes forgets about ongoing work, or he needs to know how long he has been working on one of them. He needs a tool that helps him keep track of his projects that works both as a reminder and an indicator.

2. Multitasking Molly

- Age: 37
- Education: Beauty School
- Location: Mexico (works remotely)
- Occupation: Software Developer in a startup. Single mom
- Skills and Interests:
 - She likes to bake in her spare time
 - She likes watching Korean soap operas and Sci-Fi movies
 - She owns a pet corgi
- Pain Points:
 - Struggles with work-life balance. She finds that she has little personal time after her work and taking care of her family.

- Working remotely and being the sole provider, she frequently overworks, leading to limited personal time. She has difficulty setting boundaries between her office hours and time with her child and dog, which affects her well-being and family time.

Description: Molly realizes she has been going to bed later and later. She feels like her day-to-day activities haven't changed much: She does work, cooks for herself and her son, walks her dog, does a bit of exercise, and watches some TV every day. Molly realizes she is not very good at keeping track of time and often has no idea how long she spends doing a certain activity each day. She decides she needs more discipline in her life and one way to start is to keep track of how long she spends doing things daily.

3. Empathetic Emma

- Age: 51
- Education: High School
- Location: Stockholm, Sweden
- Occupation: Lead of the Customer Success team at IKEA
- Skills and Interests:
 - She is addicted to online shopping and has a history of making poor financial decisions occasionally
 - She maintains a small garden on her balcony but sometimes forgets to water the plants
 - Strong communicator and good listener, known for a customer-first approach.
 - She has a traditional approach to her work and prefers using pen and paper over digital technology.
- Pain Points:
 - She is a bit unorganized because she has sticky notes all over her workstation.
 - Sometimes she forgets what she has planned because she wrote it down on paper but lost it at some point.

Description: She believes that her traditional way of note-keeping isn't as effective as the digital ones her team is using. She recently missed an important task written on her sticky note and was in trouble with the higher management. Therefore, she wants to try making the switch to the digital way of note-keeping so that she can manage her notes and tasks better.

4. Rich Ricky

- Age: 17
- Education: Senior year of High School
- Location: Shanghai, China
- Occupation: High school student
- Skills and Interests:

- He is a very competitive gamer and only plays League of Legends
- He is a heavy Weibo and Douyin user and spends many hours a day watching reels and shorts
- His parents are millionaires and want him to make something of himself, so they are willing to pay to send him to good private universities even though his grades are mediocre
- Pain Points:
 - His parents are threatening to cut him off from the family fortune if he can't get into a good university

Description: Ricky realizes that he needs to try harder in school and improve his test scores to get into a prestigious university or else his parents will cut him off financially. However, his League of Legends and Douyin addiction prevent him from studying for his tests. He needs a productivity tool that integrates gamified elements to keep him motivated. A system that can track his progress, keep him off distractions and reward him to get back on track.

Risk Analysis (Rabbit Holes)

High risk | Medium risk | Low risk

Italics describe possible mitigation strategies

- No concrete UI design (no hi-fi prototypes/specs, design is prone to change)
 - *Throw together some low-fidelity prototypes before writing code*
- Inexperience with CI/CD
 - *Get a really basic version working in the first sprint*
- Too many ideas/features for the pet/shop (feature creep/bloat)
 - *Introduce features iteratively. Start simple*
 - *Design a minimum/minimally viable version before starting work*
- Potentially high resource usage due to multiple timers and rendering
 - *Look into update functions that are run on a set interval (e.g. 1 second)*
 - *Start with simple text-based timers*
- Too much focus on the pet system (and not enough on the productivity tool itself)
 - *Develop a basic skeleton of the task management system first*
- UI design for different platform sizes/screen ratios. Browser compatibility
 - *Everyone do a little research into variable size CSS attributes*
- Where to get graphics (for virtual pet etc.)
 - *Do a preliminary search for stock photos, free assets, animated gifs etc*
- Balance of reward mechanism (Too easy - not engaging. Too hard - discouraging)
 - *Experiment with values (run some accelerated testing internally)*
- Graphical elements (e.g. pets, timers) are too distracting
 - *Do some low-fidelity prototyping*
- Too complex to set up a task (too many fields to enter)

- Have default values for every field to expedite. Some sort of ‘quick-start’ template
- Details of alert system unclear
 - Experiment with pop-ups, visual alerts, audio alerts, minimal alerts

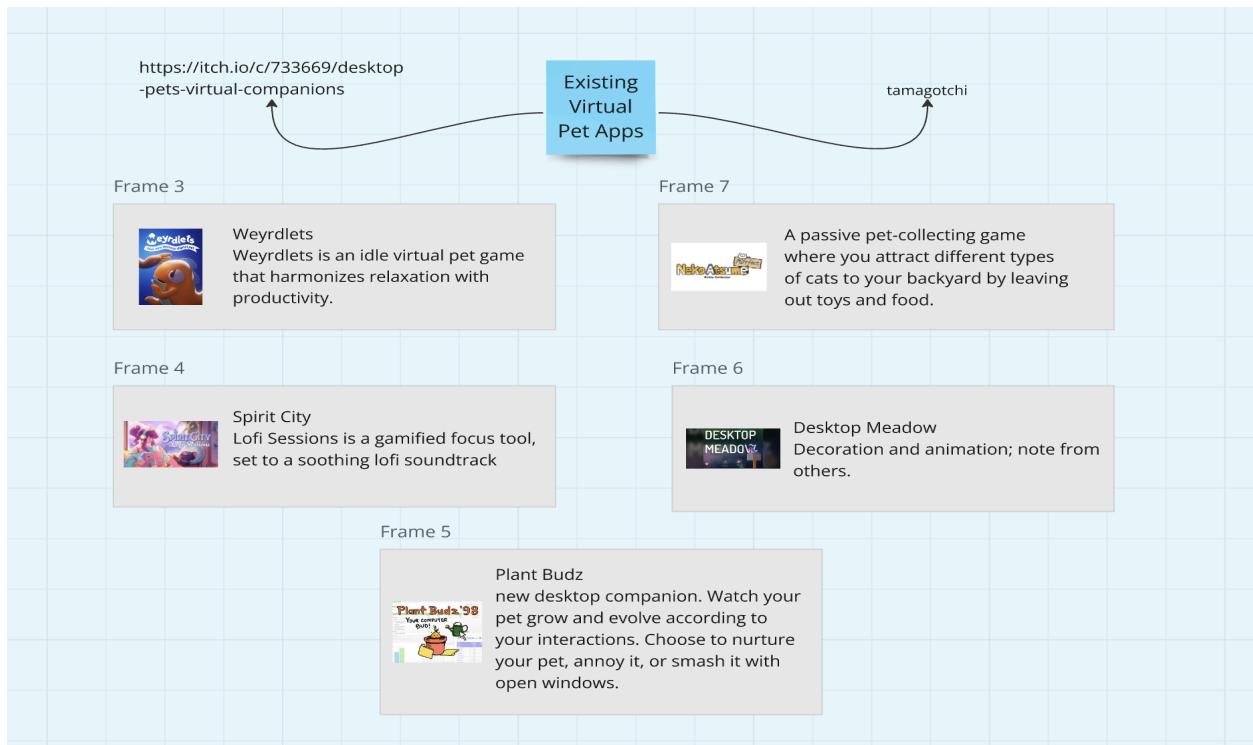
No Go (Things we do not want at all)

- No change of timer (once set initially)
- Once a task in “In progress” it cannot be reverted (can be paused or deleted).
- Only allowed to add title, description and the timer of a new task

Link to Miro Board:

[https://miro.com/welcomeonboard/VWxsU0pvQUVZa0VoMnVHZnZZakhWc2dnRmd0aTBIdm83
VTNQYzhQM1ZtZEVEOVNjMzV2Y0dSaVI2RnpXT0REZnwzNDU4NzY0NjA1NzA4MTc1MzA2f
Dl=?share_link_id=68896942402](https://miro.com/welcomeonboard/VWxsU0pvQUVZa0VoMnVHZnZZakhWc2dnRmd0aTBIdm83VTNQYzhQM1ZtZEVEOVNjMzV2Y0dSaVI2RnpXT0REZnwzNDU4NzY0NjA1NzA4MTc1MzA2fDl=?share_link_id=68896942402)

Existing Virtual Pet Apps

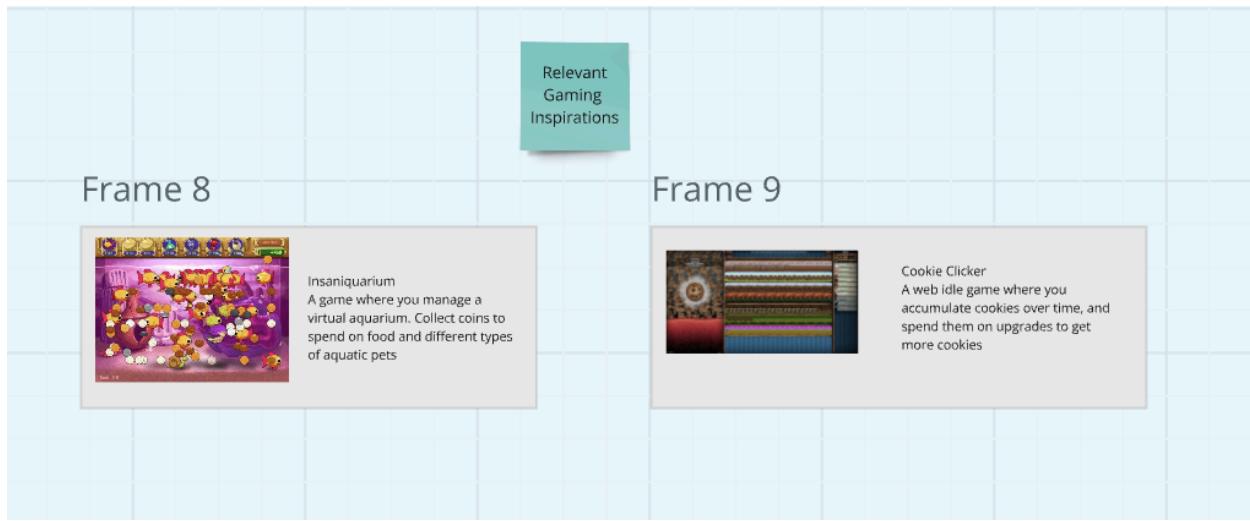


Existing Developer Productivity Tools

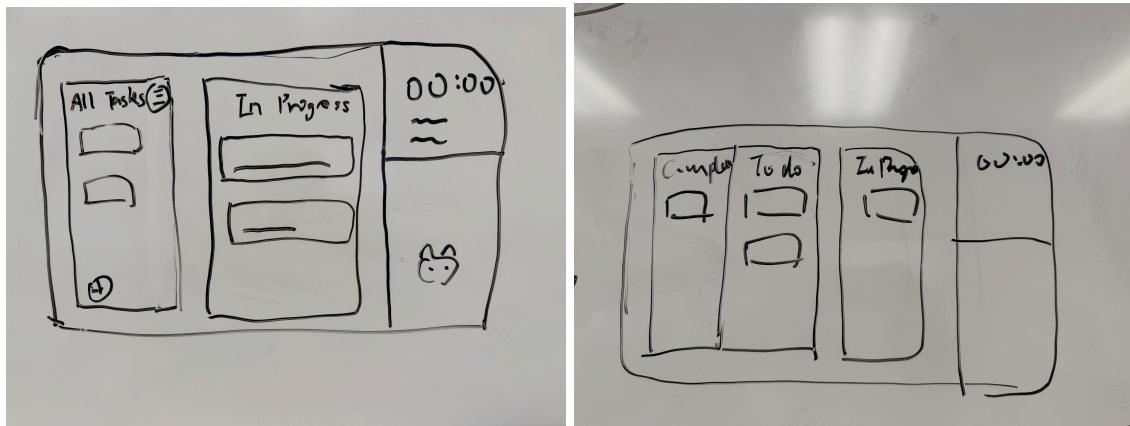
Existing Developer Productivity Tools	
 Trello	A visual tool for organizing tasks and projects with boards, lists, and cards.
 TeamCity	TeamCity of JetBrains: CI/CD tool; branches, commits, logs, statistics; Very professional and complicated
 Notion	Task Management (Kanban, Calendar View, Reminder) Collaborative Features (Real-time) Notes and Documents Customizable Databases
 Linear	Clean, streamlined tool for tracking bugs, tasks, and feature development.
 Basecamp	To dos, Message Board, Shared Docs, Schedule, Group Chats, Progress Tracking
 monday.com	Customizable workflows, collaboration, timelines, reporting, and integrations with various tools.
 Jira	A project management tool for tracking issues and workflows, popular in agile software development.
 GitHub	Kanban boards, issues, pull request integration, and automated workflows.
 Asana	Task management, time tracking, goal setting, and project reporting. Built for team settings
 todoist	Task categories. different topics; Deadlines or schedule; Reminder; importance ranking; Filter & Sorts
 ClickUp	Highly customizable with task prioritization, time tracking, document collaboration, and reminders.
 Google Keep	Google Keep is a note-taking service included as part of the free, web-based Google Docs Editors suite offered by Google.

Existing Gamified Productivity Tools

Existing Gamified Productivity Tools	
Frame 10	 VS Code Extension for Virtual Pets Puts a small, bored cat, an enthusiastic dog, a feisty snake, a rubber duck, or Clippy in your code editor to boost productivity. https://marketplace.visualstudio.com/items?itemName=tonybaloney.vscode-pets
Frame 11	 VSCODE Rainbow Fart Extension that keeps giving you compliment while you are coding. It will check the keywords in your code to play relative sounds. https://marketplace.visualstudio.com/items?itemName=saekiraku.rainbow-fart
Frame 12	 toggl track - time tracking tool: Provides fun visuals and reports as you track time spent on different tasks, giving "streaks" and insights to keep you motivated.

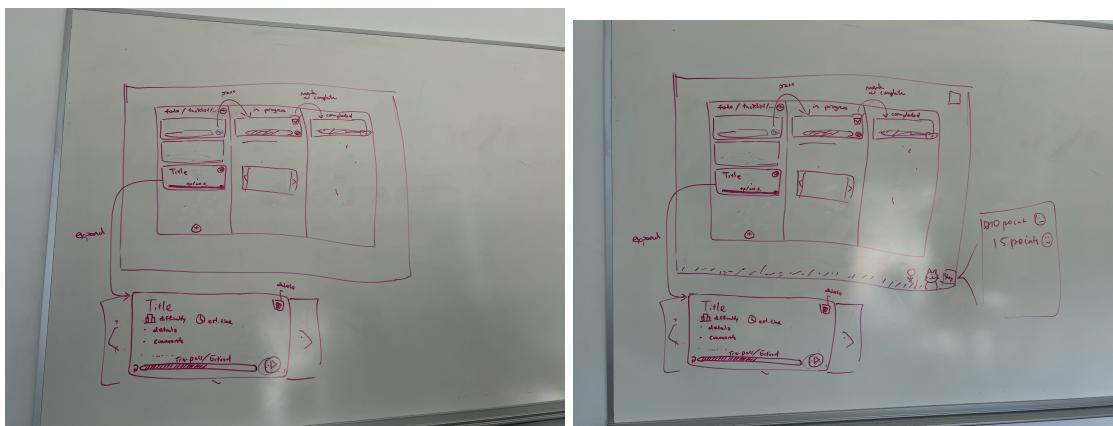


Brainstorming Sketches



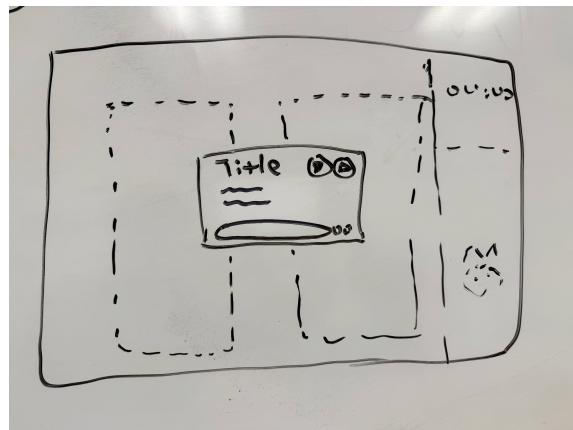
Sketch 1: General design 1 of the home page

Sketch 2: General design 2 of the home page



Sketch 3: General design 3 of the home page & Edit window

Sketch 4: General design 3 w/ Pet



Sketch 5: Task Edit popup window