

Clock Work Time Estimation

Anthony Menendez
Christian Ott
Peter Stelzer
Pierson Hendricks

Advisor: Dr. David Luginbuhl

Chosen Tools

Technical Tools:

- Android Studio
- Kotlin
- Jetpack Compose
- Swift
- XCode
- Excalidraw.com

Collaboration Tools:

- GitHub
 - GitHub Projects
- Discord
- Google Drive
 - Google Docs
 - Google Slides
- Teams

Collaboration Tools

- Discord as our primary method of communication
- Github as our code repository
- Google Docs for collaborative writing of documents
- Google Drive for sharing project files such as presentations documents, and design mockups
- Google Slides for making presentations

Mobile Hello, World Demo

- Opted to build prototypes
- Split between Kotlin and Swift
- Contained basic task list

Kotlin R&D

- Worked with Kotlin
- Worked with Jetpack Compose
- Worked with Android Studio
- Began multi-platform research
- Made lil app

Definitions

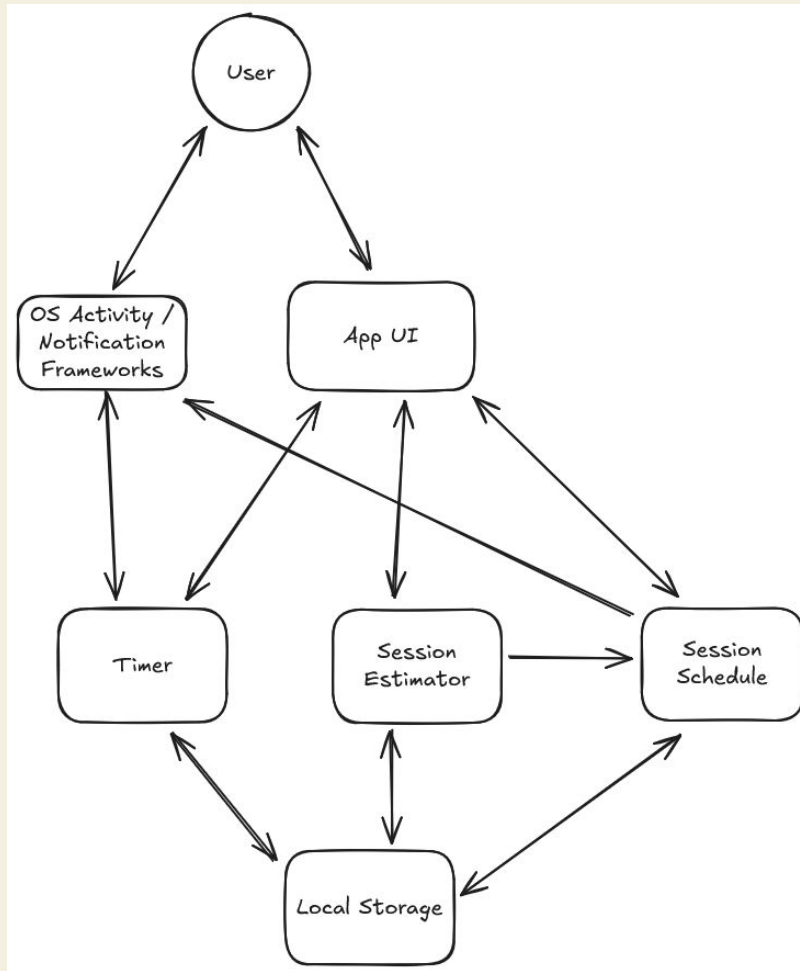
- **Task profile:** the concept/identity of a task. Includes the task's title, difficulty, and category
- **Task session:** an instance of a task profile. Have a timer once started. Completed sessions have a timeline which shows all of the events which occurred while the session was In Progress.

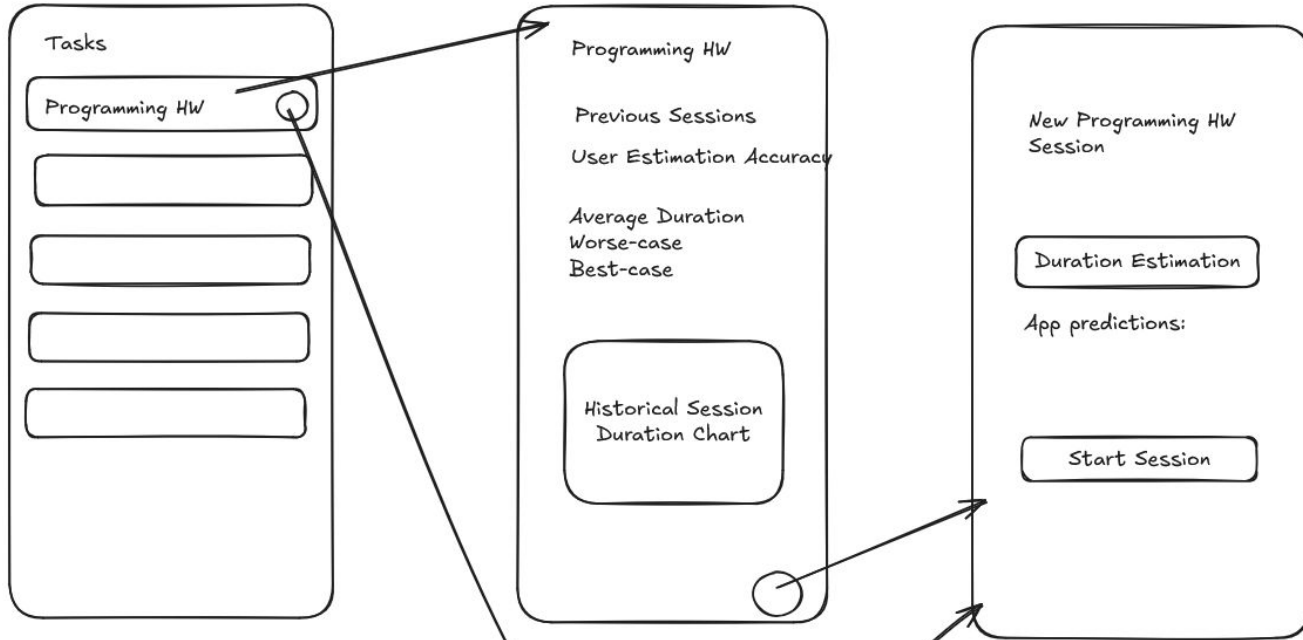
Requirements

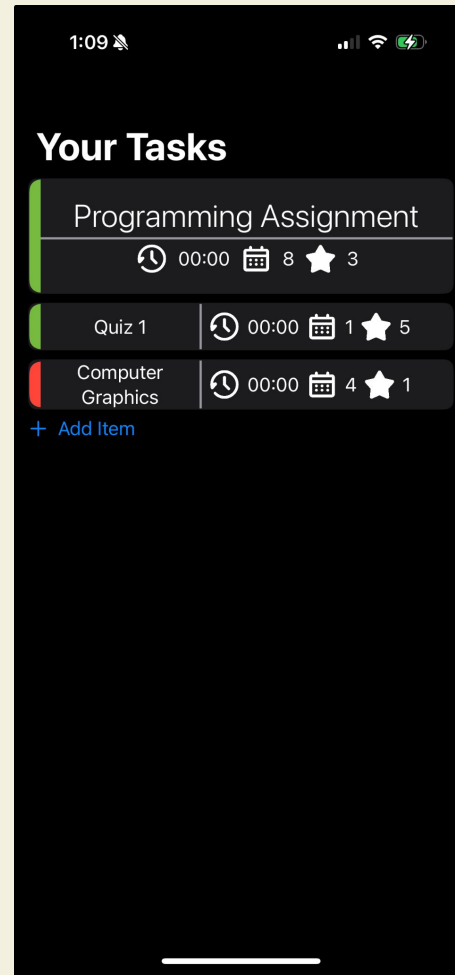
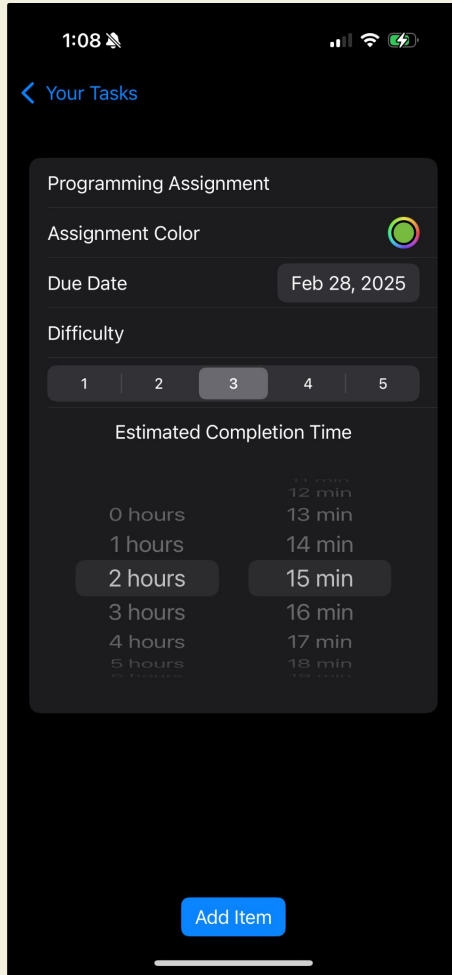
- System shall maintain task profile registry
- System shall time task sessions
- System shall edit completed task sessions
- System shall estimate hypothetical task sessions
- System shall schedule task sessions
- System shall place session controls outside of the app for quick access

Design

- We wrote a document about the design
- Architecture
- Interface Design
- Philosophies and reason







Video Demonstration

Testing

- Testing three primary app features:
- **Timing Task Completion:**
 - Ensure user can successfully create/select a task profile
 - Ensure user can successfully start/pause/stop a session
- **Predicting Future Tasks:**
 - Ensure user can successfully view time estimation for a chosen task
- **Organize Task Schedule:**
 - Ensure user can successfully add/remove tasks from the schedule and view in calendar

M1 Task Matrix

Task	Completion %	Anthony	Christian	Peter	Pierson	To do
1. Compare and select Technical Tools	100%	10%	10%	40%	40%	
2. Mobile Demos	100%	0%	0%	0%	100%	
3. Kotlin R&D	100%	25%	25%	25%	25%	
4. Compare and select Collaboration Tools	100%	40%	40%	10%	10%	
5. Requirement Document	100%	0%	50%	50%	0%	Adjust as project evolves
6. Design Document	100%	0%	0%	0%	100%	Adjust as project vision is refined
7. Test Plan	100%	100%	0%	0%	0%	Adjust as project evolves

Milestone 2 (Mar 26)

- Design Task Session List UI & Implement in Swift+Kotlin
- Design Task Session Timer UI & Implement in Swift+Kotlin
- Design (Initial) Task Session Completion UI & Implement in Swift+Kotlin
- Implement Session Data Serialization and Persistence in Kotlin
- Implement Session Timer in Kotlin
- Explore how the app interprets user data to make estimations and tracks progress
- Explore how the app treats user estimations