



Virtual Pet Health Companion

CS 501 - Mobile Application Development

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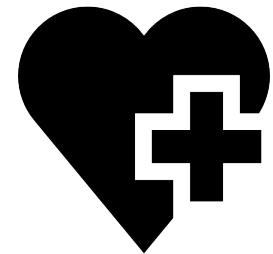


Introduction

- What is Virtual Pet Health Companion?
 - A mobile app that integrates a virtual pet with a user's real-life health data.
 - Users care for a virtual pet by maintaining their own physical well-being.
 - Encourages healthy habits through gamification and daily health-related interactions.

Motivation & Problem Statement

- Why this app?
 - Many people struggle with maintaining a healthy lifestyle due to lack of motivation.
 - Gamification improves engagement in fitness and wellness.
 - Virtual pet interactions create an emotional connection, reinforcing habits.





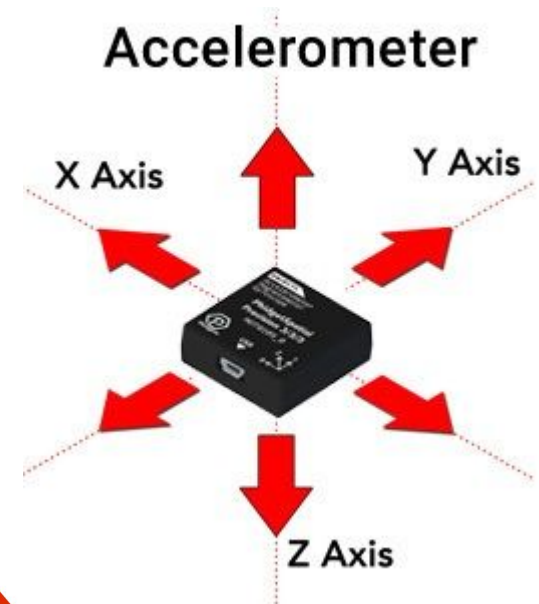
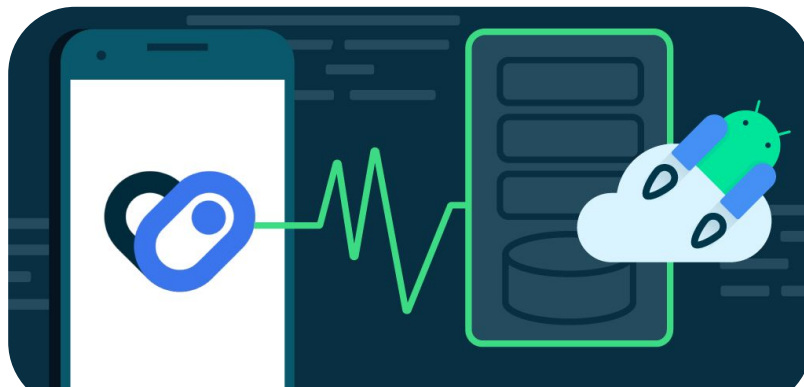
Core Features

- Main functionalities:
 - Health Data Integration (Android Health Connect)
 - Pet Interaction
 - Gamified Health Tracking (Steps, Sleep, Hydration)
 - Customization & Rewards



Technology Stack

- Tools and Technologies Used:
 - Kotlin + Jetpack Compose
 - Firebase / Room Database
 - Android Health Connect (health tracking)
 - Sensors: Accelerometer, GPS



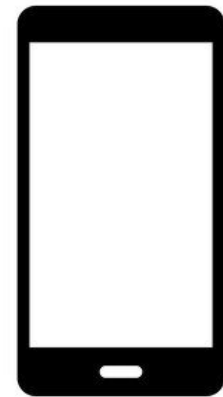
How Sleep Tracking Works

- How the app monitors sleep:
 - Retrieves sleep data from Android Health Connect
 - Evaluates sleep quality & consistency
 - Affects pet's activity and mood
 - Encourages daily sleep streaks



Target Devices & Compatibility

- Multi-Device Testing & Optimization:
 - Smartphone: Full interaction & pet management
 - Smartwatch: Quick health tracking & pet status updates
 - Responsive UI using Jetpack Compose



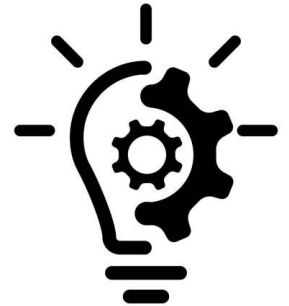


UI/UX Considerations

- Designing an Engaging User Experience:
 - Material Design principles
 - Smooth animations for pet interactions
 - Uses responsive layouts for both smartphone and smartwatch
 - Ensures simple and consistent navigation throughout the app



Challenges & Solutions



- Expected Challenges & Solutions:
 - Health Data Integration → Transition to Android Health Connect
 - User Engagement → Daily challenges, push notifications, social sharing



Expected Outcomes

- Final Deliverables:
 - A fully functional Android app integrating health tracking with a virtual pet
 - Gamification to encourage a healthier lifestyle
 - A polished, portfolio-worthy mobile app