MicroWins – Technical Documentation

Tech Stack

Languages

- Swift

Frameworks

- SwiftUI for UI development

- Apple Foundation Models for on device AI processing

- Native Apple frameworks for state and data handling

Platforms

- iOS

AI and Machine Learning

- Apple Foundation Model AI

- Fully on device processing

- Breaks user goals into structured micro actions

- Supports privacy and offline functionality

Architecture

Design Pattern

- MVVM architecture

Core Components

User Interface Layer

- SwiftUI based reusable UI components

- Liquid Glass design implementation

- Follows Apple Human Interface Guidelines

View Model Layer

- Handles application logic

- Manages state and data flow

- Controls habit tracking, goals, and progress updates

Data Layer

- Handles local data storage

- Stores habits, goals, streaks, and challenge progress

- Offline first functionality

AI Processing Layer

- Uses Apple Foundation Models

- Processes goal descriptions

- Generates structured micro tasks

- Runs fully on device

Privacy and Security

- AI processing runs fully on device

- No habit or goal data sent to external servers

- Supports offline usage

- Built with privacy first principles

RevenueCat Implementation

Features Implemented

- Subscription management

- Premium feature access control

- Purchase validation

- Cross device purchase restoration

- Subscription status monitoring

Free Tier

- Basic habit tracking

- Goal and challenge creation

- Streak tracking

- Standard progress dashboard

Premium Tier

- AI powered goal breakdown

- Advanced analytics and progress insights

- Custom challenge templates

- Additional personalization and gamification features

Integration Details

- RevenueCat SDK integrated in iOS app

- Uses entitlement system for subscription handling

- UI updates dynamically based on subscription status

- Supports Apple in app purchase infrastructure

Performance and Optimization

- SwiftUI optimized rendering

- Optimized for Apple Silicon

- On device AI for fast response

- Designed for low battery and resource consumption

Future Technical Improvements

- Expanded AI goal recommendations

- Optional cloud sync with privacy controls

- Improved analytics engine

- Collaborative and social challenges

Deployment and Distribution

- Distributed via Apple App Store

- Follows Apple Human Interface Guidelines

- Uses Apple in app purchase system via RevenueCat