Title : BetterU: Productivity and Well-Being Mobile Application

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Abstract

The BetterU mobile application is developed to address common challenges faced by students and office workers, including poor task management, cognitive overload, emotional stress, and social isolation. Existing productivity or mental well-being applications often focus on isolated functionalities, which limits their effectiveness in supporting users holistically. Therefore, this project aims to provide an integrated solution that combines productivity management with emotional well-being support to enhance users' efficiency, emotional awareness, and work–life balance.

The scope of BetterU covers five main modules: Goal Assistance (shared), Emotion Diary Note, Focus Timer, User, and Report. These modules collectively support intelligent task creation, focus session management, emotional reflection, user management, and analytical reporting. Core features include AI-assisted speech-to-task extraction, emotion-based diary analysis, focus session tracking with gamification elements, and personalised insights generated from user behaviour and emotional patterns.

An Incremental development methodology was adopted to allow continuous refinement through iterative requirement analysis, system design, implementation, and evaluation. Flutter and Dart were used for cross-platform mobile development, while Python with FastAPI supported backend services. Google Firebase was utilised for authentication, real-time database management, and cloud services. Artificial intelligence techniques, including Vosk and Whisper for speech-to-text processing, spaCy and SetFit for natural language processing, and transformer-based models for emotion classification, were integrated to enable intelligent system behaviour.

Integration testing was applied as the primary testing criterion to ensure that all system modules and internal components interact correctly under real usage conditions. The testing validated workflows such as user authentication, task creation, focus sessions, emotion analysis, and cross-module recommendations.

The results indicate that BetterU successfully meets its objectives by delivering a functional, intelligent, and user-friendly system. While limitations include dependency on network connectivity and model performance, the project demonstrates strong potential as a scalable platform that promotes productivity, emotional well-being, and sustainable work habits.