ADHD Task Manager

Project Plan

# Introduction

As we journey through our rapidly evolving and highly versatile society, individuals afflicted with ADHD encounter specific obstacles in seamlessly managing their daily tasks and enhancing overall productivity. Comprising symptoms such as limited attention span, impulsiveness, and hyperactivity, these traits hinder the effective execution of responsibilities while redirecting focus from designated assignments. Seeking to alleviate this dilemma, we endeavour to develop a comprehensive mobile app — the ADHD Task Manager — tailored exclusively for individuals living with ADHD to streamline mundane chores and optimize performance levels.

The main goal of the ADHD Task Manager is to offer a user-friendly, interactive, and multifaceted solution that enables individuals to boost their productivity by staying on top of their schedule as well as managing time effectively. This software will present users with a range of diverse tools and features such as customized reminders, scrutiny and evaluation of time use, prioritization of tasks alongside monitoring one's progress over time. With these functions interwoven into the app, it allows users to establish personalized routines custom-tailored to suit not just one's distinctive necessities but also preferences in order stay organized and increase efficiency.

This strategy comprehensively outlines the various stages integral to creating an effective ADHD Task Manager. It begins with initial brainstorming and exploration, eventually culminating in its eventual release and maintenance. This document will detail each phase's objectives, restrictions, desired outcomes alongside crucial resources and schedules. The ultimate aim of our plan is a skilfully constructed application that empowers those with ADHD to improve their independent time management skills, leading them closer towards fulfilling their true potential.

# Project organization Overview

The development of the ADHD Task Manager app is supported by a versatile and proficient group of individuals who possess a variety of technical and interpersonal competencies. The team members are dedicated to constructing a mobile application that caters to the distinct requirements of individuals with ADHD, ensuring a smooth and accessible user experience.

Team Members and Responsibilities:

Corie Rhodes:

Technical Expertise: Java, C#, Python, Git-based Version Control

Additional Competencies: Communication, Collaboration, Time Management

Responsibility: Communications Facilitator

Matthew Neil:

Technical Expertise: Java, Python, SQL, Git-based Version Control

Additional Competencies: Collaboration, Time Management

Sam McConchie:

Technical Expertise: Java, Python, Version control with Eclipse

Additional Competencies: Communication, Team Coordination

Deepak Chand:

Technical Expertise: Python, MySQL, Java, HTML / CSS, Git-based Version Control

Additional Competencies: Communication

The team members will take on various pivotal roles, including meeting leader and note-taker positions. These roles will be rotated among all members, giving each individual the opportunity to gain valuable experience in conducting meetings and documenting minutes.

Corie Rhodes will also act as the Communications Facilitator, ensuring that all team members have access to the team's communication platform (Discord) and promoting effective communication within the group.

Moreover, all team members will contribute as Resource Providers, supplying resources to the team as necessary and encouraging a cooperative environment.

Work Domains and Technical Assignments:

Front-end Development: Deepak Chand and Sam McConchie will work together on the development of the user interface and user experience aspects of the ADHD Task Manager app, utilising their expertise in Java and HTML/CSS.

# Project practices and measurements

The ADHD Task Manager project will use a range of management and technical practices to support the development process, including:

1. Agile development: The project will use an Agile development methodology, with a focus on iterative development and continuous improvement. This approach will enable the team to quickly respond to changing user needs and requirements, and to deliver working software on a regular basis.
2. Scrum framework: The development process will be organized around the Scrum framework, with a Scrum Master, and Development Team working together to deliver high-quality software. This framework will support the iterative development process and provide a structure for regular meetings and reviews.
3. User-centered design: The development process will be guided by user-centered design principles, with a focus on understanding user needs and designing features that are intuitive, accessible, and effective for users with ADHD.
4. Continuous integration and testing: The development process will use continuous integration and testing practices to ensure that new code is regularly integrated into the main codebase and that all changes are thoroughly tested before deployment.
5. Code reviews and quality assurance: The team will use code reviews and quality assurance practices to ensure that all code is of high quality and meets established standards for performance, security, and accessibility.

To track progress in each of these practices, the team will use a variety of tools and metrics, including:

* Iteration assessments and burndown reports to track progress in Agile development and ensure that the team is meeting its goals for each iteration.
* Code review tools and metrics to track code quality and identify areas for improvement.
* Automated testing tools and metrics to ensure that all changes are thoroughly tested, and that new code does not introduce bugs or performance issues.

Overall, the ADHD Task Manager project will use a range of management and technical practices to support an iterative, user-centered development process that delivers high-quality software on a regular basis. The team will track progress in each practice using a variety of tools and metrics, with a focus on continuous improvement and meeting user needs.

# Deployment

The strategy for deploying the software and its updates into the production environment will involve several key steps:

1. **Planning and Preparation:** The project team will create a deployment plan that outlines the steps for deploying the application to the app store (Google Play Store). The plan will identify any potential risks or issues that may arise during deployment and include contingency plans to mitigate these risks.
2. **App Store Submission:** The application will be submitted to the app store for review and approval. The submission process may take several days, during which time the app store will review the application to ensure that it meets their guidelines and standards.
3. **Testing:** Prior to deployment, the application will be tested thoroughly to ensure that it is free from bugs and performs as expected. Testing will include functional testing, user acceptance testing, and performance testing.
4. **Rollout Plan:** A rollout plan will be developed that outlines the process for deploying the application to end-users. The plan will specify the order in which updates will be deployed, the timing of the deployment, and any specific requirements for each update.
5. **Deployment:** Once the rollout plan has been developed and tested, the application will be deployed to the app store. The deployment process will be automated, using Fastlane, to ensure that the process is consistent and repeatable.
6. **User Communication:** End-users will be notified of the new release through the app store notification system. The notification will include a summary of the new features or fixes and instructions on how to download the update.
7. **Monitoring and Support:** The production environment will be closely monitored to ensure that the application is performing as expected. Any issues will be addressed promptly, and appropriate support will be provided to end-users as needed.
8. **Continuous Improvement:** The deployment process will be continuously reviewed and refined to identify areas for improvement. This will ensure that future deployments are even smoother and more efficient, minimizing the risk of downtime or issues.

# Project milestones and objectives

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| **Subject** | **Phase** | **Iteration** | **Dates** | **Primary objectives** (risks and use case scenarios) |
| ITC303 – Software Development Project 1 | Inception Phase | I-1 | 13/03 – 26/03 | * Establish Version Control * Understanding of Project Requirements and Resources * Elaborate and Establish Project Vision * Validate Project feasibility. * Define Project Plan * Establish Risk List * Define And Document Team Technical Competencies |
| I-2 | 27/03 – 9/04 | * Establish a Risk List * Implement a Technical Competency Demonstrator Document * Apt Descriptions of Use Cases Within the Premise of the ADHD app * Create a Test Plan * Finalize LCOM objective Milestone Documents * Complete Inception Phase Project Assessment |
| Elaboration Phase | E-1 | 10/04 – 23/04  (Session Break) | * Establish Full Use Cases within Project and their cause and effect (activity flow) * Implement SQLite Into Android Studio * Add task functionality. * Complete a Revised Project Vision, Revised Project plan, Revise Requirement Model and A Final Architecture Document * Understand And Develop Finalized Ideas of Project Functionality/App approach |
| E-2 | 24/4 – 7/05 | * Development of push notifications to alert users of a task * Development of a settings view * Development of an analytics and help view. * App navigation development * Develop Pomodoro Timer * Develop SQLite table to keep track of user statistics. * Develop backend logic for tracking the number of task created/completed/deleted without completing. * FAT for all functionality added to the application during the iteration. * Fix bugs found during FAT. |
| E-3 | 8/05 – 21/05 | * Develop user authentication with Firebase. * Integrate Firebase for leaderboard table to track and rank user points/stars. * Integrate SQLCipher to encrypt and protect local SQLite database. * Develop logic for setting to alter how many push notifications are sent and for what level priority of task push notifications are sent for. * Develop logic for setting that allows the user to opt in/out of the leaderboard feature. * Develop logic for awarding points for completing task and giving stars for reaching points targets. * FAT for all functionality added to the application during the iteration. * Fix bugs found during FAT. |
| E-4 | 22/05 – 2/06 | * Complete Revised Master Test Plan * Complete Revised Risk List * Complete Final Architecture document * Deliver executable architecture. * Complete Security Testing * Contingency and catch-ups. * Deliver Life Cycle Architecture Milestone (LCAM) * Complete Elaboration Phase Status Assessment |
| Mid-year Semester Break | | | | |

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| Mid-year Semester Break | | | | |
| ITC309 – Software Development Project 2 | Construction Phase | C-1 | 10/07 – 23/07 | * Develop process mining to analyze how users go about completing task. * Develop Firebase table to store user to-dos. * Develop logic for setting to allow user to opt in/out of storing their to-dos in the cloud. * Develop Help Page. * Develop User Profile view. * FAT for all functionality added to the application during the iteration. * Fix bugs found during FAT. |
| C-2 | 24/07 – 6/08 | * Implement “Feel Good” Statements. * Develop leaderboard screen. * Implement leaderboard logic. * Develop feature to set device to do not disturb when pomodoro timer is active. * Review UI to check for each of use. * Make changes to UI based on feedback from review. * FAT for all functionality added to the application during the iteration. * Fix bugs found during FAT. |
| C-3 | 7/0 – 20/08 | * Use the Mobile Security Framework to analyze the app for security flaws. * Fix any security flaws found by the analysis. * FAT for all functionalities. * Fix bugs found during FAT. |
| C-4 | 21/08 – 3/09  (Session Break) | * Contingency. * Complete Construction Phase Project Assessment. |
| Transition Phase | T-1 | 4/09 – 17/09 | * Deploy the application to the google play store. * Get first round of UAT from external users. * Resolve any identified issues. |
| T-2 | 18/09 – 1/10 | * Complete 2nd round of external UAT. * Resolve any issues identified. |
| T-3 | 2/10 – 13/10 | * Contingency * Complete Final Project Assessment |

# Change Log

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| Change ID | Name | Description | Date Raised | Raised By | Priority |
| 001 | Interactive Leaderboard | Added Leaderboard for gamification of application | 22/04/23 | M. Neil | High |
| 002 | “Feel Good” Pop Up statements | Added Feel Good Statements to help users feel encouraged to complete their tasks | 22/04/23 | M. Neil | Medium |