# Elaboration Phase Status Assessment

## 1. Assessment against Objectives of the Elaboration Phase

### 1.1 Do we know what we are trying to achieve?

The aim of the project is to create an ADHD Task Manager mobile application that is designed to help individuals with ADHD manage their daily tasks and improve their productivity. This is embodied in the completed Vision Document.

<https://github.com/commet003/ITC303-9-Team1-Project/blob/testing/LCAM%20Documents/LCAMUpdatedProjectVision.docx>

We understand the main functional requirements of the project which are:

* User registration through username and password authentication
* SQLite database system
* Points awarding
* Other user comparison communication i.e. leader board.

This is shown in the completed Use Case model within our designated folder:

<https://github.com/commet003/ITC303-9-Team1-Project/tree/main/Use_Cases>

We understand the main Non-Functional requirements of the project which are:

* allows users to create and manage their tasks easily. This functionality will enable users to add due dates, prioritize tasks, and categorize tasks by project or topic.
* system will include a Pomodoro timer, which allows users to work in intervals of focused work and rest.
* the system will include a habit tracker and reward system.
* the system will include insights and analytics. This functionality will include graphs and charts.

This is shown in the completed Non-Functional Requirement model embodied in <https://github.com/commet003/ITC303-9-Team1-Project/blob/testing/LCAM%20Documents/Revised%20Requirements%20Model.docx>

### 1.2 Do we know how we are going to achieve it?

We have a good idea of how we are going to achieve our aims. We are going to use Separation of Concerns (SoCs) to effect scalability, testability, performance, and maintainability. Consequently, 3 major components, namely model, view, and controller, with specific responsibilities will be created. This is shown in the completed Architectural Notebook

<https://github.com/commet003/ITC303-9-Team1-Project/blob/main/LCOM%20Documents/Iteration1/LCOMProposedArchitecture.docx>

We have a good understanding of the project specific risks facing our project and how we are going to deal with them. The risks are:

* Overcomplicating the application
* Testing our application
* Team Communication
* Functional inaccuracy
* Usability

Our evolving understanding of risks is shown in the ongoing risk list and discussed further below in Section 4 and within our initial risk management list.

<https://github.com/commet003/ITC303-9-Team1-Project/blob/testing/LCAM%20Documents/RevisedLCAMRiskList.xlsx>

We have a good understanding of how we are going to check that our application delivers the intended functionality and system properties. Our key areas of concern and the test strategies we will use to address these concerns are as follows:

* Make certain that the primary components of the Task List are functional. The ability to include, eliminate, and finish tasks represents the central operations of the app.
* It is crucial to preserve user information for future access. The app needs to recall saved tasks and determine the appropriate moments for issuing notifications.
* The app must provide accomplishment incentives upon task completion. One of the primary draws of this application is the rewards users receive after finishing their tasks.

This is shown in the completed Master Test Plan

<https://github.com/commet003/ITC303-9-Team1-Project/blob/testing/LCAM%20Documents/LCAMFinalMasterTestPlan.docx>

We have an understanding of the dependencies and likely completion times for different parts of the project. Target completion dates for key aspects of the project are as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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 leader board 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 leader board 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 | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Mid-year Semester Break | | | | |
| ITC309 – Software Development Project 2 | Construction Phase | C-1 | 10/07 – 23/07 | * Develop process mining to analyse 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 leader board screen. * Implement leader board 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 |

This is shown in the Project Plan.

### 1.3 Skills Required

Our project requires skills using the following key tools and technologies:

* Firebase Authentication / Firestore Database integration
* Software connectivity using common formats like CSV and JSON
* Secure communication protocols (HTTPS, SSL/TSL) for protocols.
* Android Studio to write and implement project using Kotlin language.
* SQLite database integration for storing user data.

We have demonstrated that we have the skills to use these technologies through the implementation of a technology competency demonstrator.

## 2. Deliverables

- Master Test Plan No Issues

- Project Plan No Issues

- Risk List No Issues

- Requirements Model No Issues

- Project Vision No Issues

- Proposed Architecture No Issues

## 3. General Issues

1. Communication

An area we are lacking as a team is communicating to one another. We have analysed that this needs to be addressed moving forward to ensure everybody is on the same page when it comes to decisions and input from all of the members. All the team members have acknowledged that this is a problem and steps have been implemented to improve this in the future. Some of these are check in messages, as well as more regular meetings.

1. Design

The Team has not settled on a final design of the product, which can make some of the documentation seem off. The documentation will be rectified when the final design has been confirmed.

## 4. Risks

1. Overcomplicating of the application is causing delays

* Some components of the application are complicated and are beyond the skill sets of some team members.
* The mitigation strategy is to ensure that team members are assigned work items that better align with their skill sets.
* This risk is ongoing.

1. Testing phases not being signed off on and completed.

* Because we have struggled with some work items and have fallen behind we have not been able to complete thorough testing of our application.
* The mitigation strategy is to complete thorough testing at the beginning of the next iteration and get caught up on outstanding work items.
* This risk is ongoing.

1. Team Communication

* The group has been struggling with communication for the last few iterations, which has contributed to the other risk.
* The mitigation strategy is to have a set day of the week and a set time, where we hold our team meetings.
* This risk is ongoing.

4. App functional accuracy

* Points must be correctly added so that rewards can be correctly given.
* The mitigation strategy is to thoroughly test the app.
* this risk is ongoing.

1. Usability

* Because of the lack of testing, we have not been able to confirm that the application works as intended.
* The mitigation strategy is to thoroughly test the app at the beginning of the next iteration.

## 5 Summary – Overall Project Progress

Whilst the project has made some considerable progress during the Elaboration Phase, we still have some work items that are outstanding and need to be completed, and we will have to work hard during the next iteration to ensure we catch up. Poor communication has continued to be a risk for the team, that will need to be addressed as it has led to further misunderstandings, delays and other issues.

In addition to poor communication, there is an ongoing issue with the design of the application, which has not been settled on. The team is exploring different design options to ensure that the app meets the needs of its target audience.

There are also several ongoing risks associated with app development that need to be monitored throughout the project, including technical issues such as bugs and compatibility issues and scope creep which could result in delays.

To mitigate these risks and address ongoing issues, the team needs to communicate effectively, identify potential issues and risks early on, and take appropriate measures to address them. Overall, the project is moving forward, but has now fallen behind schedule and will require extra effort to get caught up.