Elaboration Phase Status Assessment

Version Control

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Table of Contents

1. Outcomes

The objective for the elaboration phase to have 'end-to-end production level support for the most critical use case, using the chosen software architecture, the intended production environment, has been achieved .This is demonstrated in a short video walkthrough which may be accessed from [here](#).

During the Inception Phase, we identified Place an Order as the critical core use case. This is because: without the ability to for a user to place an order there is no function requirement for the project to be developed. A majority of the use cases support the ability to place an order.

We identified 3 layer architecture as a feasible approach to addressing the requirements of the projects as outlined in the updated and continuing Architectural Notebook, which may be accessed [here](#).

The main architectural elements which are demonstrated by the executable architecture are:
- Usability
- Security
- Reliability
- Integrity
- Compatibility

Those aspects of the architecture not addressed include:
- Availability
- Audit

Correct support for the CCRD use case by the executable architecture was achieved as demonstrated and documented in the following user acceptance tests.

2. Changes to the Project

2.1 Requirements (Scope)

During the Elaboration Phase, our understanding of the projects aims evolved as follows:

Removed Table Booking mechanism and Event Booking mechanism from section 6: Architectural mechanisms. This is to conform with the revised scope of our project.

Table and event booking was removed from the project scope as due to time constraints they were identified as the least critical use cases to support the project requirement of increasing a cafe's online presence for ecommerce.

2.2 Architecture

A separate app for staff activities has been developed to allow for an extra layer of security that disallows customers from performing the same actions that staff and admins can like: check off completed items from active orders or complete the order even if it isn't ready. General users (customers) not having the same options as staff or admin was the main driving force for deciding to separate the 2 UIs for customers and staff.

The current architectural notebook can be found [here](#).

2.3 Project Plan

During the Elaboration Phase, our understanding of the best way to implement the project evolved as follows:

The order and the priority of use cases were adjusted to increase the effectiveness of implementation. The implementation for table and event booking was also removed.

Due to the change in architecture creating 2 separate apps both the customer and staff apps needed to be created in parallel to achieve the objective for the elaboration phase in the given time frame.

The current project plan document can be found [here](#).

2.4 Master Test Plan

The most significant change to the master test plan was the reassessment of the technical risk analysis and test strategy. These were adjusted based on the revised use cases and after the first round of testing the best test strategies became more apparent.

The current master test plan can be found [here](#).

3. Deliverables

Task item	Required Deliverables	Status of Deliverable
1	Implementation of Highest Priority Architectural Element(s) to Support CCRD Use Case (Place an Order)	[Complete](#)
2	Development Testing for Highest Priority Architectural Element(s)	[Complete](#)
7	Apache server and MySQL database deployed along with PHP scripts	[Complete](#)
8	Internal User Acceptance Testing for CCRD Use Case in Trial Environment	[Complete](#)

4. Risk Management

The current risk list document can be found [here](#).

4.1 Ongoing Risks

Currently the 2 high impact risk items are coronavirus (ID 2) and knowledge/skill requirements (ID 4).

Risk item ID 5, 6, and 7 have all been reduced to low for the probability of occurrence. ID 5 has been lowered as we currently have a working database. ID 6 has been lowered as use cases have been re-evaluated with the total number of use cases being reduced. ID 7 due to the teams skills being improved throughout the elaboration phase for android studio.

4.2 Mitigated Risks

Risk ID 3 has been closed as team member Jake no longer has 5 subjects removing that as a risk for this project.

5. General Issues

5.1 Working independently

Although we have worked fairly well as a team, we also work more independently from each other then together on aspects of the project. This creates blind spots where a person may not fully understand how a part was implemented, this can cause issues where sections have to be re-written to have them work together.
An example of this was the database structure between the customer 'front-end' and the staff back-end' apps. The database was structured only keeping the front-end in mind and not how the back-end would need to interact with the system.
This issue will be addressed by creating work items that overlap with other team members and prevent a single person being the only one to underst a part of the project, which creates a risk factor.

5.2 Communication

During iteration 3, the first of the elaboration phase, there was a significant communication break down. This put the project behind an iteration, putting LCAM at risk and forced an extra iteration to be requested in order to complete the elaboration phase with a completed objective.
The issue was discussed in length during our weekly meeting on the 26/04/2020 and new strategies to communicate more effectively and consistently were put in place. Overall there has not been an issue of this level since.

6. Summary - Project Progress

As of this point we have progressed through elaboration and have been able to achieve the objective of Place an Order critical core use case, as well as the highest priority supporting use cases.

There are only 2 high impact risks, and both are being continually monitored to allow preemptive intervention.

Changes made to the scope and project plan were made to create a realistic timeline for project completion.

Any issues that may be ongoing or arise in the future are being addressed as soon as they occur. This prevents any form of festering frustration within the team and/or the project falling behind.