Personalized Shopping Assistant

Team 4

Thomas Ripp Joseph Mirabile Jose Cruz

Stevens Institute of Technology

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Contents

1 Elicitation

1.1 Context

For the personal assistant project we set up meetings every other week with our customers, because of COVID we had to have this meeting in a remote setting using Google Meet.

1.2 Methods

1.2.1 Brainstorming

For the first meeting, our goal as a team was to figure out what is the main goal of the project, identify the stakeholders and get an idea of the scope of the project. For this project the stakeholders where imaginary, they were potential users.

To achieve this we set up the meeting in a way that each of the people involved in the project introduce themselves and tell us what kind of experience they have, so we have an understanding of the technical knowledge each of them has and also so we can balance the technological terms used during the conversation.

Once we establish this we have a baseline vocabulary that we used during the entire project.

We try to figure out what kind of role they are fulfilling in the project, one of them responds better to businesses wise questions, another one has technical expertise regarding architectural decision, one is good at identifying edge cases and have creative ways to solve problems and the other has more technical knowledge regarding security.

We discover this by enabling them to talk freely about what is the goal of the project, and each of them focus on a particular area of the project, when a conversation about a particular subject takes place one of them usually jumps in.

In the following meetings once we confirm the requirements from the previous meeting we have time to brainstorm about the possible solutions and implementations of the feature they would like to include in the project.

1.2.2 Interviews

From the second interview onwards, we take the input from the previous meeting and we create a set of questions that we send to the client 2-3 days before the meeting so they have time to discuss.

These questions are created mostly to answer some questions that arise while we were analysing the information the client provided in previous meetings or to provide some clarification either use case or requirement validation.

Not only that but these questions help us to stay on scope during the meeting, once we are in the meeting we start reviewing the questions one by one and ask more information for clarification, and depending on the use case we move the conversations towards how to validate them or what quality attributes they would expect from the use case.

If the client does not have the answer to a particular question we skip that question and go to the next one, so we can use the time more efficiently. Once we finish with the questions we backtrack to the questions that they did not have an answer and we start brainstorming about possible solutions.

While we are doing this brainstorming session we validate right away, how can we verify those requirements and also we evaluate if those are feasible or not, sometimes in the conversations some edge cases arise and we think about possible solutions for those edge cases.

Once the meeting ends we take notes of all the answers they provided and we start analyzing them.

2 Analysis

2.1 Mission Statement, Key Drivers, Key Constraints

The goal for the meeting was to determine:

1. What is their motivation to create this project?
2. What problem in the market do they want to fulfill?
3. How do they want to achieve this?
4. What is the business model?
5. How big is the market for this project, short and long term?
6. Who are their competitors?
7. What is their product differentiator?
8. What kind of constraints do they have, either time, technological or monetary?

We had a meeting in a free form setting, brainstorm, so the customers could provide their insight without any specific agenda, sometimes one or more of the people in the group focused on an area in particular and we moved the conversation over that topic.

2.2 Key Stakeholders, User Requirements, Business Requirements

Once we established why the client would like to develop this project we went ahead and tried to figure out who are the stakeholders, what is the scope of the project and what business goals are they trying to achieve.

The goal for the meeting was to determine:

1. How many stakeholders are in the project?
2. How the project would help the stakeholders to interact with each other?
3. What are their business goals in the short, medium and long term?
4. Identify the motivator for each of the stakeholders
5. How many applications are going to be built?
6. What functionalities do each stakeholder want?
7. Seize what is the scale on which the program is going to run in the short, medium and long term
8. What is their budget?
9. What is their go to market timeline?

We sent the clients a document with the questions that we had from the previous meeting, some were to make sure that we understood their motivation, others were to get clarification because some of the replies seemed ambiguous.

We used an interview approach to get these clarifications, this process was quick so we moved the conversation towards getting to know what is their current status regarding resources and constraints, what is their budget, what is their business goals, how much traffic they were expecting.

We use this information to create their business requirements. Once we have these we start talking about the key stakeholders for the program. What was their motivation? What is their demographic? what is their social-economic status? How are they solving their problem right now, and how the project would improve the existing solution.

We move from a interview forma towards brainstorming, we want to open the scope as much as possible to have place for creativity insight and during the conversation we move the conversations in a way that would narrow the scope of those idea, we achieve this by discarting ideas that were not feasible, either from a technological perspective or time constraints.

With this we identify the key stakeholders, and then we start discussing what kind of functionalities each of these stakeholders would want to achieve with the program, this was still in a brainstorming format. We used this information to generate the User Requirements.

2.3 System Requirements, Security Requirements, Quality Requirements

With the information from the previous meeting some problem arises, there was conflict in some of their requirements, we take notices of those and we put them in a document that we sent to them before the meeting.

The goal for the meeting was to determine:

1. Clarification of the conflicting requirements
2. Use case validation
3. Quality attributes
   - Performance
   - Accessibility
   - Usability
   - Security
4. How many platforms are going to be develop?
5. What kind of constraints do they have regarding providers?
6. What kind of compliance the software requires?

From the previous meeting we know what is the goal and motivation for the stakeholders, and also how they interact with one another, now the focus is moving towards how can we achieve those expectations using software.
We as a team already have an idea on how the project could be implemented and which providers to use to achieve it. We have the meeting in a free form format but behind the scenes we were giving suggestions on how the system could be implemented and their clients either agree or usually provide alternatives. With this information we layout how many platforms would be required.

Now it is time to transform these user requirements into system requirements, we start asking them questions about what the process should be and ask them on how the system should behave in case the system reaches a particular edge case. During the conversation we ask questions on how to validate if this use case was executed successfully, these were the foundations for the quality requirements. Once we understood how can we verify if the requirements were successful or not, we move the conversations towards how good this were supposed to be, we start asking questions about:

- How fast X should be able to perform
- How many steps should happen to achieve a particular use case?

- How should we do data validation?
- What is the expected uptime for a particular system?
- When are the expected peak hours, if any?

We take these notes and create a formal representation of these requirements using the grammar used in the textbook.