PROCESS SPECIFICATION DOCUMENT

Team Auriel

Submitted By:

Akshaya Venkatesh, Pallavi Arivukkarasu, David Kelly, Yinan Guo

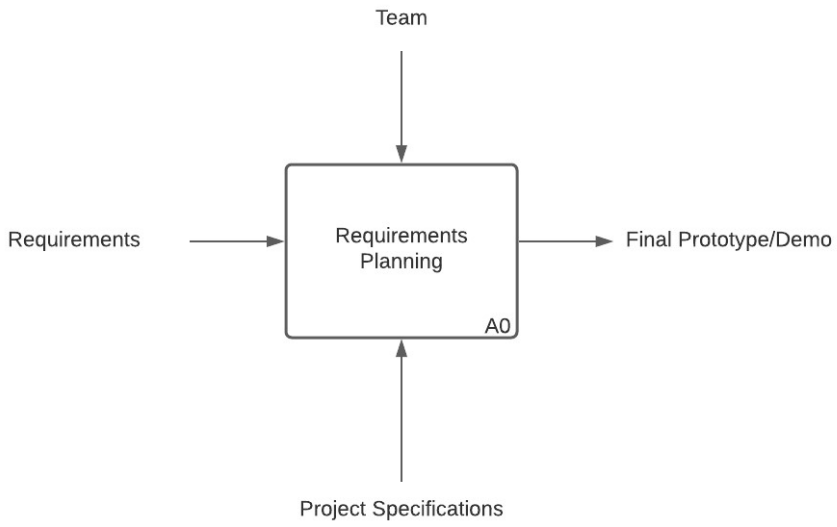
Instructor: Dr. Bolong Zeng

CPT_S 484

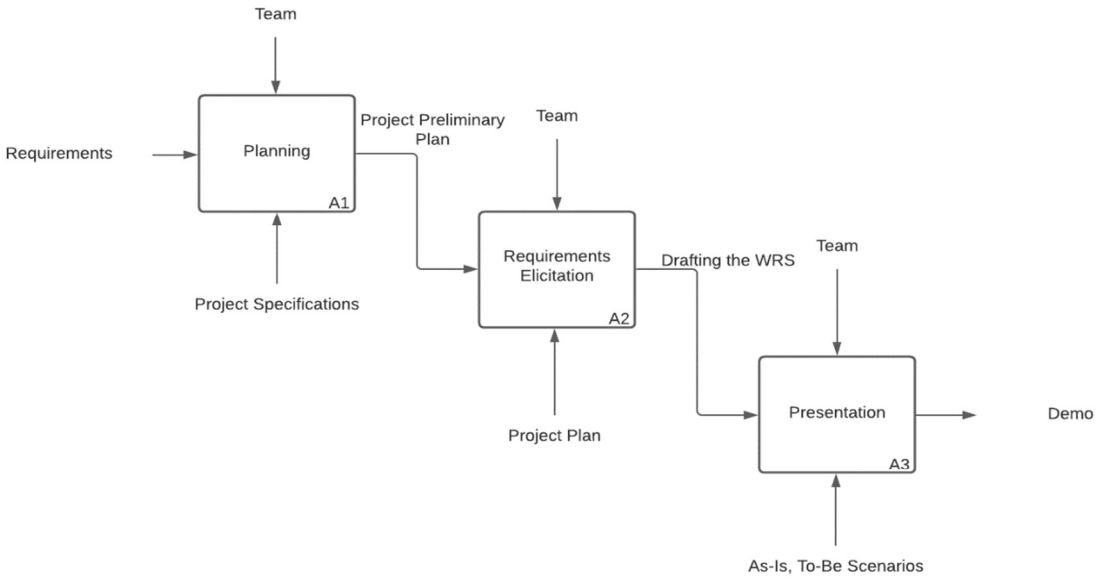
School of Electrical Engineering and Computer Science

Washington State University

Level 0:

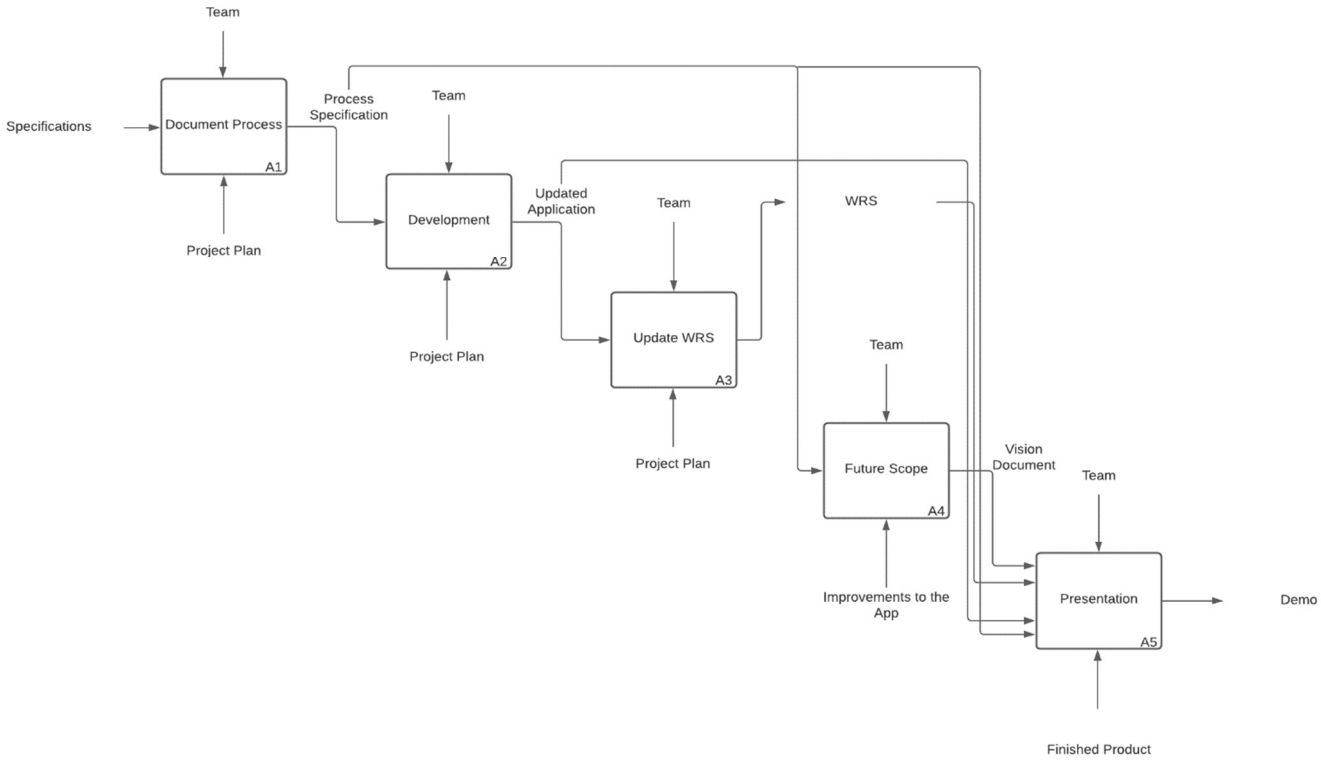


Phase 1:



Phase 1

Phase 2:



Phase 2

PURPOSE:

This document aims to describe and define the development process that Team Auriel followed to generate the deliverables for the product. This document is used to map out all the team's activities and the relationship between those activities and stages.

CONTEXT:

The assumption here is that the IDEF0 model flow and processes planning requirements and available resources are known. The IDEF0 models and context diagrams are built using tools such as LucidChart.

VIEWPOINT:

A developer who has experience in mobile application development and has experience and knowledge in the entire software development process. Also, students and aspiring developers understand the mentioned topics.

ELICITATION:

During phase one, the team gathered the essential requirements for the significant scope of the project. With the project initially having clear conditions, the team established a solid scope and goal. Based on the requirements, the team decided to develop the application using Angular 11. The requirements were gained through the requirements gathering stage, which included communicating with the stakeholders. The process made minor adjustments to the requirements based on what the team perceived was achievable by human standards. The essential core requirements set forth by the stakeholder stayed consistent.

VALIDATION:

The procedure for validation of requirements included communication and agreement with the primary stakeholder. The primary stakeholder for this project was Bolong Zeng, the course instructor. The team had several meetings with him to hear his feedback and come to a consensus on the validity of requirements to stay.

MANAGEMENT:

This section provides insight into the process of managing changes. Adjusting for changes was a straightforward procedure. This included verifying that the difference indeed needed to happen and making the necessary change to successfully move along in the project development. Along the process, the project faced several points where things needed to be reordered; following the systematic approach of recording the current state and making the change allowed for documenting the entire process. Managing the change process and change was done effectively and professionally.

Phase 1:

- **Preliminary Plan:** Phase one included the creation of the Preliminary Plan. The entire team completed the Preliminary Plan. David completed section 1 (Introduction), Pallavi completed section 2 (Project Organization), Yinan completed section 3 (Managerial Process), and Akshaya completed section 4 (Technical Process).
- **Final Submission:** This included the WRS document, a revised plan, collection of meeting records, and presentation slides. The WRS document was an extensive requirement document split evenly between team members. Akshaya completed the Issues section, Pallavi completed the User Manual, Yinan completed the W and Introduction section, and David completed the R and S sections. Akshaya completed the collection of meeting records.
- **Presentation:** Before submitting, the team met with the primary stakeholders to present their plan and vision. The team was allowed to receive feedback and satisfy the requirements given. The team collaboratively developed the PowerPoint presentation itself.

Phase 2:

- **Final Project Plan:** Essentially, this is an iteration of the revised plan from Phase I. Adjustments were made accordingly; this included updating the entire document better to fit the most current development of the prototype. Most importantly, the actual schedule was revised to hold all

the tasks planned to be completed. This included deadlines for each task, who is assigned to what, and a description of the task itself. David and Akshaya completed this plan.

- **Process Specification:** The process specification document is a document that covers the overall process for the production of the prototype and requirements formation. Pallavi completed this document.
- **Vision Document:** This document covered all business requirements (Objectives, Risks, Scope, and Vision Statement) and business context (Project Priorities). Yinan and Pallavi completed the vision document.
- **WRS Document:** The process for developing the final WRS document included taking the WRS from Phase I and adding essentially re-writing it to adapt to the most current changes. The WRS document was adjusted to match the realistic expectations for the prototype and define the known aspects in more detail with the added information based on the development experience. David and Akshaya completed the WRS document.
- **Final Presentation and Prototype:** The creation of the prototype was perhaps the most crucial aspect of this entire project. All the team members had a part in development. The final presentation will be presented to the primary stakeholder on December 10th. The team developed the presentation.
- **Phase 1 vs. Phase 2**: Each of the phases had integral components that were completed. The relationship between the two stages was significant. Phase II relied heavily on the information and documents completed in Phase I. The diagrams above can observe the overall process within the two phases or defined as the team's "Process" for developing the prototype.
- **Team's Process:** The team's RE and development process followed the following: The initial stage was requirements gathering. This was followed by the preliminary plan, the first draft of the WRS document, and the revised plan document. These things were all completed in Phase I. The final version of the WRS document and the implementation stage (developing the prototype). Based on the software constraints faced during prototype development, the WRS document and the final plan were updated to accommodate functional and non-functional changes. The final

plan was also completed in phase II and was essentially an iteration of the revised plan from phase I. After all the stages were complete, the team completed the Testing stage. This made sure all functional and non-functional requirements were met and tested code for bugs. If something wasn't finished or a functional requirement was not met, the development would go back to implementation. The process model, the team, was aiming to follow was the prototyping model. The prototyping model was observed in the project's actual development and implementation stage. The working prototype was built, tested, and then reworked as necessary until an acceptable outcome was achieved.