Waterfall Method

Ponder 02

# REFLECTION

No one knows what the actual roles of the waterfall method are. During my research I found a lot of conflicting opinions on who does what, and how to divide the responsibilities.

This plan is much more viable than the code and fix methodology. The requirements, design, and testing phases are implemented, which is a must for software development.

I think this plan makes efficient use of our resources. It may have difficulty if requirements change a lot throughout the project, but this project has relatively stable requirements, so I anticipate that it will be a successful plan. The risk of changing requirements is always a danger to the waterfall method. Also, testing occurs at the end of development, rather than during development, which may cause debugging to delay the schedule.

# PLAN

# MEETINGS

## Requirements Meeting

* + 1. **Participants**

**The Project Manager, Business Analyst, and all Software Engineers will attend this meeting.**

* + 1. **Agenda**

The participants of this meeting will create an SRS document

* + 1. **Goal**

**The goal is to identify and document all of the requirements for this project.**

* + 1. **When**

The beginning of the business day after we receive the document, occurring daily until the SRS is complete.

## Preliminary Design Meeting

* + 1. **Participants**

The Business Analyst, Project Manager, and a senior Software Engineer (Abe) will attend this meeting.

* + 1. **Agenda**
* **Given what we know about the contract, the participants of the meeting will design a system capable of fulfilling the contract.**
* **The participants of the meeting will create an overview document.**
  + 1. **Goal**

**The goal is to get a feel for the scope, potential requirements, and potential designs for the project.**

* + 1. **When**

**Once the SRS has completed, occurring daily until the overview document has been completed.**

## Analysis Meeting

* + 1. **Participants  
       The Project Manager, Business Analyst, and all Software Engineers will attend this meeting.**
    2. **Agenda**
* The participants of the meeting will analyze the project and overview document.
* The participants of the meeting will figure out what we need to know to elicit requirements and obtain that knowledge.
  + 1. **Goal**

**The goal of the meeting is to identify risks and prepare for requirements elicitation and specification.**

* + 1. **When**

**After the overview document from the first meeting is complete, this meeting will occur daily until the Project Manager and Business Analyst feel that the project is sufficiently analyzed and the participants prepared to move on to the requirements phase.**

## 1.4 Design Meeting

**1.4.1 Participants**

**The Project Manager and all Software Engineers will attend this meeting.  
1.4.2 Agenda**

The participants of this meeting will create a SDD

* + 1. **Goal**

**The participants of this meeting will decide on a design for this project.**

* + 1. **When**

After the Analysis meeting is done, this meeting will occur daily until the Project Manager determines that the SDD is complete.

# DOCUMENTS

## SRS

## **2.1.1 Author(s)**

The authors are the participants in the Requirements Meeting.

## 2.1.2 Audience

The audience are the participants in the Design Meeting, and the client.

## Purpose

The purpose of this document is to specify all of the requirements for this project.

## 2.1.4 Distribution

This document is to be delivered via email.

## Deadline

This document is due the day before the Design Meeting.

## Preliminary Design Overview

## **2.2.1 Author(s)**

The authors are the participants in the Preliminary Design Meeting.

## Audience

The audience are the participants in the Requirements Meeting.

## Purpose

The purpose of this document is to provide a framework to work from while analyzing and eliciting requirements.

## Distribution

This document is to be delivered via email.

## Deadline

This document is due the day before the Requirements Meeting.

## 2.3 SDD

## **2.3.1 Author(s)**

The authors are the participants in the Design Meeting.

## 2.3.2 Audience

The audience is the Software Engineers, and the Project Manager

## Purpose

The purpose of this document is to specify the design for the project.

## 2.3.4 Distribution

This document is to be delivered via email.

## Deadline

The day before the Software Engineers begin coding the project.

## 2.4 Test Plan

### 2.4.1 Authors

The Software Engineers and the Project Manager with author this document

### 2.4.2 Audience

The Software Engineers and the Project Manager are the audience of this document

### Purpose

This document serves to specify how testing will be done and when testing will be complete

### Distribution

This document is to be delivered via email.

### Deadline

The week after we enter the testing checkpoint.

* 1. Operating Instructions

### Authors

The Business Analyst with the support of the Software Engineers with author this document.

### Audience

The client is the audience for this document.

### Purpose

This document will explain how to use and integrate our product.

### Distribution

This document will be delivered via email.

### Deadline

The end of the Operations checkpoint.

# ROLES

## 3.1 Project Manager

**3.1.1 Qualifications**

* A Project Manager needs experience managing projects, including budgets and people.
* A Project Manager needs good communication skills.
* A Project Manager needs to understand the Waterfall Method well.

**3.1.2 Responsibilities**

A Project Manager is responsible for creating the project proposal, the overview for the preliminary design, and the release checklist. The Project Manager is responsible for keeping the project on task and on schedule. The Project Manager is responsible for managing all other members of the project team.

**3.1.3 Who?**

I will fulfill this role.

## 3.2 Business Analyst

3.2.1 **Qualifications**

A Business Analyst needs experience in Business, good communication skills (especially technical communication).

**3.2.2 Responsibilities**

A Business Analyst is responsible for the Business side of software development, including but not limited to: cost benefit analysis, goals and objectives definitions, and interacting with senior management [1]. The Business Analyst also helps define requirements for the project, and helps manage changes to the requirements, updating the related documents [1]. The Business Analyst’s responsibilities lessen once the project enters the design phase, but pick up again once testing begins to ensure requirements have been met.

**3.2.3 Who?**

Teri

## **3.3 Software Engineer**

* + 1. **Qualifications**

**A Software Engineer needs a BS or BA degree in a Computer Science related field. A Software Engineer also need to understand the SDLC as it relates to the Waterfall method. A Software Engineer needs to know how to design, code, and test software.**

**Responsibilities**

**A Software Engineer is responsible for eliciting requirements, assisting the Business Analyst in documenting requirements, analyzing and designing the project, developing the project, and testing the project. A Software Engineer will aid in the creation of the SRS and SDD documents, as well as other documents as the Project Manager requires. A Software Engineer is responsible for coding up the project exactly to the specifications laid out in the documentation. Once the testing phase has been reached, a Software Engineer is responsible for testing the project and debugging it until it is ready for delivery.**

* + 1. **Who?**

**Everyone in the “Software Engineers” group per the Ponder 02 assignment specification.**

# CHECKPOINTS

## 4.1 System and Software Requirements.

### 4.1.1 Exit Criteria

Once the Project Manager is satisfied with the SRS document, this checkpoint has been met

### 4.1.2 Time Estimate

Three weeks

## 4.2 Preliminary Design

**4.1.1 Exit Criteria**

**Completion of the overview document is the exit criteria of this phase.**

**4.1.2 Time Estimate**

**This will take approximately one week after the SRS is complete to complete.**

## 4.2 Analysis

**4.1.1 Exit Criteria**

**Project Manager and Business Analyst approval of satisfactory analysis is the exit criteria of this phase.**

**4.1.2 Time Estimate**

**This will take approximately one week after the overview document is complete to complete.**

## 4.2 Design

**4.1.1 Exit Criteria**

Once the Project Manager is satisfied with the state of the SDD, this phase is complete..

**4.1.2 Time Estimate**

**This will take approximately one week after the Analysis phase is complete to complete.**

## 4.2 Coding

**4.1.1 Exit Criteria**

Once all features have been implemented and we are ready to begin testing, this phae is complete.

**4.1.2 Time Estimate**

**This phase will take approximately three weeks to complete.**

## 4.2 Testing

**4.1.1 Exit Criteria**

Once the Project Manager approves the level of bugs left in the program, this phase is complete.

**4.1.2 Time Estimate**

**This will take approximately three weeks to complete.**

## 4.2 Operations

**4.1.1 Exit Criteria**

**Once the operating instructions are complete and the product has been delivered, this phase is complete.**

**4.1.2 Time Estimate**

**This will take approximately two weeks.**

[1] Hathaway, T., “Business Analysis and Waterfrall Methodologies”, Business Analysis Experts, [Online Available] http://businessanalysisexperts.com/product/business-analyst-waterfall-methodologies