

REQUIREMENTS

Blue Stingray begins all software projects with a discovery requirement gathering phase. The requirements gathering phase is completed before the sprint (or build) cycle begins. Skipping a requirement phase is a simple way to sabotage your project, guaranteeing project delays and increased costs.

Objectives During Requirements Phase

ESTABLISH PROJECT GOALS AND OBJECTIVES EARLY

Everyone might understand what is needed, but objectives still need to be written down and clearly defined. Every stakeholder involved in the project needs to sign off on the objectives and goals. The goals will be the framework for everyone to work within. When building requirements, compare them against project goals to determine whether the requirement satisfies an objective. If it does, it's probably a good fit for phase one. Otherwise, it needs to be part of a future release.

DOCUMENT EVERY REQUIREMENTS GATHERING ACTIVITY

While performing the user interviews and documentation, the developers might feel like they have a good understanding of the customers' needs and goals. The more the developer learns about the users' systems, the more it becomes clear that the developer will never fully understand the clients' goals and needs as well as they do. Collecting detailed notes during your stakeholder interviews is the first step in a successful requirements gathering process.

CONSTANT REVIEW

At times, both the stakeholders and the developers will appear to have a good understanding of the project. Does everyone fully understand the project needs in the same way? After every gathering requirements session, the Blue Stingray team will organize any notes and present them to the stakeholders to confirm that everyone is on the same page.

TALK TO THE RIGHT STAKEHOLDERS AND USERS

Make absolutely sure everyone who will have a stake in the project and use the completed software takes part in the requirements gathering process. This will ensure that users can perform their jobs properly once the software is moved to production. When disgruntled users are forced to use a system that was designed without their input, the project will typically fail.

DETAILS

When developers have only a vague or basic understanding of a particular feature or requirement, additional costs will quickly start to add up. Detailed requirements must be created for every feature or user request. Minor missed details in the beginning of the project can lead to major rewrites later.

STAKEHOLDERS NEED TO CONFIRM

During every step of the process, stakeholders need to physically sign off on all agreed understanding and future direction. This is the case for notes, user stories, diagrams, wireframes, and any requirement asset that is created. The key to avoiding future disputes is to obtain actual confirmation from your stakeholders that you are representing the requirements correctly in whatever format you're using.

FOCUS ON BUSINESS NEEDS

Blue Stingray will focus on what the stakeholder needs, not what the solution can do. The goal is to adapt the software to fit the users' needs, not to force the user to use the software in an unorthodox way. Blue Stingray will listen and gather requirements, then determine where the gaps exist between the stakeholder's needs and any existing solutions that are available. Requirements are about the WHAT, not the HOW.

PRIORITIZE YOUR PRODUCT FEATURES

When defining requirements, Blue Stingray will focus on a Minimum Viable Product (MVP) approach. The goal of the MVP functionality is to create phases that allow phase one to be a successful software solution, even if replacing minimal functionality. Prioritizing functionality is key when you are gathering requirements. The requirements gathering sessions should never consist of building a user's wishlist. The wishlists will never be ignored; they will be implemented in later phases. These wishlist items also reveal long-term goals for the company. The goal of prioritization is to clearly define the scope for the initial launch and determine what needs to be implemented in upcoming phases.

Steps To A Successful Requirements Phase

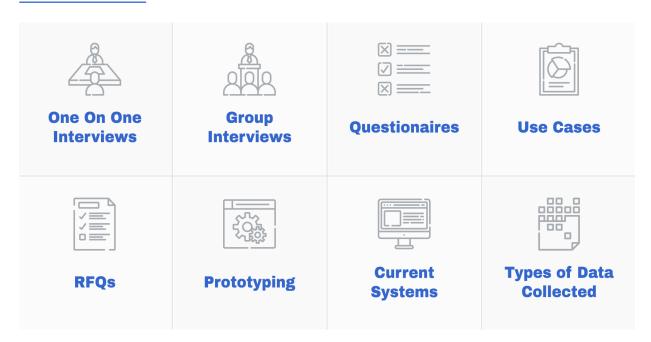
- Gather Information
- Record Findings
- Analyze Findings
- Validate
- Gap Analysis
- Functional Requirements

Step One

Gather Information

Gather requirements from all pertinent resources. The primary resource will be the stakeholders. The other resources can be from current systems, software documentation, workflow charts, and other software interfaces.

Information Sources



Entity Modeling

Entity modeling is the process of identifying the data that needs to be served along with the historical data that needs to be integrated with the new solution. If the system that is being developed requires database modeling, a database expert will define the final model.

Users Stories

User stories record the activities that different type of operators perform, as well as how they interact with the system and its data. Operators are anyone that interacts with the business and who will be active users on the new software platform. This can include outside resources such as customers or even factory equipment.

Use Cases

Use cases are lists of actions that define the interactions of a user and the system in order to achieve a goal. The user can be a person or a piece of equipment. A standard use case is a list of possible sequences that occur between a user and a business system.

Step Two

Analyze Findings

Blue Stingray engineers will group the requirement findings into three major categories:

Functional Requirements

This is where Blue Stingray will define how a the final solution will function from the user's perspective. This is where the list of end-user features and functions will be defined.

Operational Requirements

These define operations that must be carried out in the background to keep the product or process functioning over a period of time.

Technical Requirements

The Technical Requirements are where we define the technical concerns that must be evaluated before attempting to successfully implement a final solution.

Step Three

Validate

Once all the information is gathered it needs to be validated and reviewed by the end-users.

- Requirements will be defined in detail precisely
 - The goal is no ambiguity or vagueness.
 - The requirements need to be clearly stated.
 - Detailed to the point where all sceneries are defined. (Increased cost and problems arise from unknowns that have not been defined or analyzed.)
 - All business needs need to be defined.
 - Requirements need to be detailed enough so that a solution can be designed.
- Requirements need to be prioritize and it might require that phases are created. Needed functionality
 and "nice-to-have" functionality must be separated within the requirements.
- Determine the the change and how it will impact the current systems.
- Resolve any user requirements that seem to conflict with another user's requirements within the same company.

Once requirements are gathered, the results and a detailed report of the business needs will be discussed with key stakeholders. There will be a written documents of all findings.

The document will be reviewed by all key stakeholders, end-users, and development teams, before moving to the gap analysis. This can help resolve any remaining disagreements, and can form part of a loose agreement between the developers and the stakeholders.

Step Four

Gap Analysis

A Gap Analysis is where Blue Stingray determines the current state of the client's solutions and systems. Blue Stingray will list the current state of all relevant functionalities and processes.

- 1. Blue Stingray will identify the desired state for each process: In case we do not know the name of future sate or simply the future state is unknown to us then mention "Unknown".
- 2. Finding the Gaps. When the current state and the desired future solution doesn't match then a Gap exists.
- 3. Defining the Gaps. Blue Stingray will define the Gaps in great detail. Sometimes the future process in unknown but the current process is not working. These unknown Gap details will be documented. This gap details will be determined once a solution is determined. A gap resolution strategy might be needed at this point.
- 4. Determining the Gap Resolution. Blue Stingray will define how we need to approach every found gap.
- 5. A gap analysis will always include additional comments and requirement docs. These docs will also include additional details concerning the gap phase.

Step Five

Functional Requirements

The Functional Requirements document will define the the functional operations and the user's activities within a system that the user requires to perform their job.

Functional Requirements will include information about:

- Data that the user normally enters into the system
- Functional operations performed by a user
- Work-flows performed by the users
- A list of all reports or other outputs from the system
- User levels and authentication
- Security concerns

Steps for Creating Functional Requirements

- 1. Blue Stingray will verify that all facts that were collected about project are accurate. Accuracy is one of the most important aspects of the entire requirement gathering process.
- 2. Clearly define all needed user and system functionality. Without using technical jargon Blue Stingray will define all functional requirements.
- 3. Blue Stingray will clearly list out all necessary solutions and functionality that is being requested by the
- 4. All functional requirements will be validated by the end user to be valid requirements that were requested by the user.
- 5. The final process of the requirements is that the requirements will be accepted by the end user which will establish a project baseline for the stakeholders.

Final Step

Requirement Sign-Off Process

Sign-offs are needed because the stakeholders need to agree to and approve the requirements before implementation begins. Even with detailed view of requirements and project expectations of the completed solution, the stakeholders need to physically sign off on all requirements. It is not common for methodologies like Agile to have a formal sign-off phase, but having the requirements signed does add clarity to the project.

Ensure that stakeholders understand the requirements.