

**UNIVERSIADAD TECNOLÓGICA DE**

**SAN LUIS RIO COLORADO**

**TAREA #1**

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* **STAGES OF THE REQUIREMENTS ANALYSIS:**

These stages are one of the most important things before the development of a software. The stages need to be employed with carefulness of the one that may do it. The correct research and investigation secures the success of the software and purpose of the software.

1. **CONCEPTION STAGE:**

The first stage and one of the most important stages of the development of the software. Here is required a complete observation of the analyst because the problem needs to be as crystal clear.

* + **DESCRIPTION OF THE PROBLEM**

Do we really stop to analyze in detail what the problem is? Or we always have to solve the problem launching ourselves immediately trying to solve it blindly. In this phase of description and analysis we are going to explain the objective of our project. For this we need three steps: **identify, define and divide.**

**Identifying** a problem is realizing that it exists and that we can give you a solution. We can detect the problem ourselves (noticing situations that we could improve), or it may be the result of a proposal. In any case, it is not enough to detect it, but we must state it correctly.

**Defining** a problem consists of specifying the initial conditions that the object or system that we are going to develop with the project must have.

**Dividing** a problem consists of breaking it down into other simpler ones in order to better tackle them.

* + **STAKEHOLDERS IDENTIFICATION**

In this step the main concept is to identify the people of greatest importance in development. Since it is they who will solve the problem raised in the previous step.

Types of stake holders.

|  |  |
| --- | --- |
| PRINCIPAL STAKEHOLDERS | INDICATORS |
| Shareholders | They own part of the business |
| Management | Responsible for the development of activities |
| Workers | People who carry out the activities |
| Customers | People who buy the product that is made |
| Providers | People who supply the company |
| community | Community to whom the product is directed |

* + **GENERAL RESOURCES**

All those elements that can be used as means to achieve the development of software. For example, it is possible to speak of economic resources, human resources, intellectual resources, renewable resources, etc.

Here are defined the bases of what will be our scope in the project as well as how much will be used for the correct development of the software.

1. **INQUIRY STAGE**

At this stage the small details are investigated as well as the questions that we will try to answer when solving the initial problem. The study of a valuable question, issue, problem, or idea.

* + **GENERAL PURPOSE**

Function of the general objective is to formulate the purpose of the project and must establish what will be done in the course. It must be viable, concrete, precise, viable and objective.

With the general objective, it is necessary to define, without going into details, what you want to achieve at the end of the project. It must be feasible to achieve with the available resources, the strategy adopted and the expected deadlines.

These are the basic elements or components that can help us establish the general objectives of a project

* + **SPECIFIC OBJECTIVES**

Here it is investigated in depth in the questions that will help us to the correct development.

**Situation to change**: includes the problem or situation that needs to be changed or improved. **What to change?**

**Target population**: this is the subject to which it is directed. **For whom?**

**The measure to implement**: it is the solution or type of intervention that will modify the problem or the situation to change. **How?**

**The scope of application**: is the geographical area or area of life in which the measure will be applied**. Where?**

**Application time**: defines the time in which the objective should be reached. **When?**

* + **SCOPE**

The scope of a project is aimed at the clear, simple and concrete determination of the objectives to be achieved throughout the development of the project, the fulfillment of which will generate the successful completion of said project. This scope is equivalent to the concept of "objective", since both must be framed within the context of SMART criteria, which is presented below:

* + - **S**pecific: must be specific and must not contain controversies.
    - **M**easurable: The scope should be measurable.
    - **A**chievable: it must be able to be carried out within the parameters of reality.
    - **R**ealistic: to be able to be generated, in a feasible way, within the stipulated period and with the use of available resources.
    - **T**ime-related: it is necessary to delimit the time span of the project.

1. **ELABORATION STAGE**

Carry out the scheduled activities, their tasks, and proceed to the delivery of the products. It is important to ensure good communication at this stage to ensure greater control over progress and deadlines. Likewise, the evolution of the consumption of resources, budget and time is essential, for which it is usually necessary to rely on some project management tool. At this stage, you must manage: risk, change, events, expenses, resources, time and updates, modifications and people.

* + **SOFTWARE REQUIREMENTS SPECIFICATION (ERS)**

ERS is a document whose purpose is to provide a complete description of a software product to be developed, including its purpose, the main business processes that will be supported, characteristics, key performance parameters and behavior. As such, it essentially serves as a map that guides the development process and keeps everyone on the right track.

**What an ESR should look like?**

1. **Introduction**
   1. Purpose
   2. Audience
   3. Expected use
   4. Area of application
   5. Acronyms and definitions
2. **General description**
   1. User needs
   2. Dependencies and Assumptions
3. **System requirements and features**
   1. Functional requirements
   2. External interface requirements
   3. System characteristics
   4. Non-functional requirements
   * **USE CASES**

Requirements used to specify functionality, especially in systems with a high degree of human/machine interaction. In essence the use cases describe the exchanges between the system that is being described and the people that interact with it, therefore they are very useful to describe functionalities to various types of users and with many interfaces. The validity of the use cases is given when the users and those involved in the system accept the proposed operation, provided that the wording of the same is good. So the use cases should be useful and offer value both to the team of users and stakeholders and to the developers of the project.

**The correct implementation of the stages defined above will bring us in a correct way to the section of the graph in which the objective of the project was accomplished.**