**THE DESIGN METHOD IN ENGINEERING**

**PHASE 1. IDENTIFYING THE PROBLEM**

**Problem identification:**

A group of software engineers called YZ Group wants to build a system that allows the management of tasks and reminders, due to the increasing need to organize daily responsibilities and stay on top of pending tasks in an increasingly busy world. Creating a task and reminder management system seeks to help people be more productive and meet their commitments effectively.

|  |  |
| --- | --- |
| **Customer** | YZ Group |
| **User** | Clients of YZ Group |
| **Functional requirements** | * FR 1. Create a task or reminder. * R.F 2. Deleted a task or reminder. * R.F 3. Modify a task or reminder. * R.F 4. Show the organize a task or reminder by priority. * R.F 5. Save changes made. * R.F 6. Undo changes. |
| **Context of the problem** | A group called YZ Group wants to build a system that allows the management of tasks and reminders, because they want the users to be able to write down in the system those important things that they want to remember. |
| **Non-functional requirements** | NFR1: Scalable Software |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name or identifier** | FR 1. Create a task or reminder | | | |
| **Summary** | The system must allow the creation of tasks or reminder | | | |
| **Inputs** | **input name** | **Data type** | | **Selection or repetition condition** |
| id | String | | Every task or reminder has a unique identification code that is generated by the system |
| tittle | | String |  |
| description | | String |  |
| dateLim | | Date | Some tasks and reminders have a deadline to change their status |
| priority | | int |  |
| **General activities needed to obtain the results** | The system will be able to create a new task or reminder and save it | | | |
| **Result or postcondition** | The task or reminder was successfully created | | | |
| **Outputs** | **Output name** | | **Data type** | **Selection or repetition condition** |
| errorMessage | String | | Show if was an error during the creation of the task or reminder. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name or identifier** | FR 2. Deleted a task or reminder | | | |
| **Summary** | The system must allow the elimination of tasks or reminder previously created. | | | |
| **Inputs** | **input name** | **Data type** | | **Selection or repetition condition** |
| id | String | | The unique identification must be used to search and delete the task or reminder |
| **General activities needed to obtain the results** | The system will be able to delete a new task or reminder | | | |
| **Result or postcondition** | The task or reminder was successfully deleted | | | |
| **Outputs** | **Output name** | | **Data type** | **Selection or repetition condition** |
| errorMessage | String | | Show it was an error during the elimination of the task or reminder. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name or identifier** | FR 3. Modify a task or reminder | | | |
| **Summary** | The system must allow the modification of tasks or reminder | | | |
| **Inputs** | **input name** | **Data type** | | **Selection or repetition condition** |
| id | String | | The unique identification must be used to search and modify the task or reminder |
| **General activities needed to obtain the results** | The system will be able to modify a new task or reminder and save the changes | | | |
| **Result or postcondition** | The task or reminder selected was successfully modify and save. | | | |
| **Outputs** | **Output name** | | **Data type** | **Selection or repetition condition** |
| errorMessage | String | | Show it was an error during the modifying of the task or reminder. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name or identifier** | FR 4. Show the organize a task or reminder by priority | | | |
| **Summary** | The system must allow the view of the tasks or reminder organize by the priority | | | |
| **Inputs** | **input name** | **Data type** | | **Selection or repetition condition** |
|  |  | |  |
| **General activities needed to obtain the results** | The system will be able to organize the tasks or reminders by the attribute priority | | | |
| **Result or postcondition** | The tasks or reminders is show in an organized way | | | |
| **Outputs** | **Output name** | | **Data type** | **Selection or repetition condition** |
| msg | String | | Show the list of tasks or reminders organized by priority |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name or identifier** | FR 5. Save changes made | | | |
| **Summary** | The system must save the changes, leaving first the last activity made for the user | | | |
| **Inputs** | **input name** | **Data type** | | **Selection or repetition condition** |
| action | String | | It’s used every time that the user realizes and action |
| **General activities needed to obtain the results** | The system will be able to recognizes and save every action made for the user | | | |
| **Result or postcondition** | The actions made for the user are saved in the system to be used later. | | | |
| **Outputs** | **Output name** | | **Data type** | **Selection or repetition condition** |
|  |  | |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name or identifier** | FR 6. Undo changes | | | |
| **Summary** | The system must undo the last changes made | | | |
| **Inputs** | **input name** | **Data type** | | **Selection or repetition condition** |
| action | String | | It’s the last action made for the user |
| **General activities needed to obtain the results** | The system will be able to recognizes every action made for the user and deleted the last one. | | | |
| **Result or postcondition** | The last action made for the user is deleted. | | | |
| **Outputs** | **Output name** | | **Data type** | **Selection or repetition condition** |
| errorMessage | String | | Show it was an error during the undo of the action. |

**PHASE 2. OF THE NECESSARY INFORMATION**