**Identificación del problema y análisis de requerimientos**

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| Client | Company developing the task and reminder management system |
| User | System user |
| Functional requirements | R1. The system must allow storing tasks and reminders.  R2. The system must allow the management of task and reminder priorities.  R3. The system must allow undoing actions. |
| Problem context | The problem context focuses on the design and development of a task and reminder management system. The main goal of this system is the efficient storage and organization of tasks and reminders, which are associated with priority levels and specific dates. Additionally, it aims to provide users with the ability to undo actions performed in the system. To achieve this, the system is planned to be implemented using a combination of technologies, including hash tables, stacks, and priority queues, which will enable effective data and action management in the system. |
| Non-functional requirements. | R4. The program should be easy to use and understand for users, with an intuitive and clear interface. |

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| Identifier and name. | *R2 – Priority managment* | | | |
| Summary | *The program should allow priority management. For this, the user enters the priority when registering the task or reminder.* | | | |
| Inputs | **Entry name** | **Data type** | | **Valid value condition** |
|  |  | |  |
| Result or Postcondition | The program will sort tasks based on the priority of each task, with the highest priority level at the top and the lowest at the bottom. If the user wants to view the priority list, the program will display the list via a message. | | | |
| output | **Output name** | | **Data type** | **Format** |
| Msg | | String |  |

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| Identifier and name | *R3 – Undo actions* | | | |
| Summary | *The program should allow the user to undo actions. For this, the user should select the 'undo' option.* | | | |
| Inputs | **Entry name** | **Data type** | | **Valid value condition** |
| Option | Int | |  |
| Result or Postcondition | The program will send a success message and undo the last action. | | | |
| output | **Output name** | | **Data type** | **Format** |
| Msg | | String |  |

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| Identifier and name | *R1 – Register tasks and reminders.* | | | |
| Summary | *The program should allow the user to register tasks and reminders, for which the following inputs are required: type, title, description, due date, priority.* | | | |
| Inputs | **Entry name** | **Data type** | | **Valid value condition** |
| Type | Int | | *Only two options are available*   1. *Task* 2. *Reminder* |
|  | Títle | String | | *n/a* |
|  | Due date | Date | |  |
|  | Priority | int | |  |
| Result or Postcondition | The program will send a success message and undo the last action. | | | |
| output | **Output name** | | **Data type** | **Format** |
| msg | | String |  |