TABLA DE ESPECIFICACIÓN DEL PROBLEMA DE INGENIERÍA DE SOFTWARE, identificando los siguientes elementos

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| CLIENTE | Company - GreenSQA |
| USUARIO | GreenSQA company partners and employees |
| REQUERIMIENTOS FUNCIONALES | RF1- Management of projects  RF2- Management of project stages  RF3 - Completion of a stage of a project  RF4- Register knowledge capsules  RF5- Approval of the capsules  RF6- Publication of the capsules to the organization  RF7- Consult knowledge capsules  RF8 - Menu |
| CONTEXTO DEL PROBLEMA | The company is looking for a software that stores its information securely and that allows the content of the projects to be managed only by the managers so that if in the future the employees change companies, the information worked on will be safeguarded. In order to develop the problem it is necessary to know the company's policies. The security system they like to use. |
| REQUERIMIENTOS NO FUNCIONALES | RN1- Number of capsules that can be generated  RN2- Time it takes to run the program  RN3- Easily accessible update  RN4- A clear and easy to use interface.  RN5- Having a reliable and secure system against information theft attempts.  RN6- The task of registering and consulting the knowledge capsules by the collaborators will be easy to perform from the cell phone or web browser.  RN7- The operations performed by the service manager require a web application where the project, personnel and information management can be configured.  RN8- The user interfaces of the applications will be designed by a UX/UI specialist.  RN9- Report generation time: less than 15 seconds. |

| Nombre o identificador | RF1- Managing people in a project | | |
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| Resumen | When you want to store the information of a project, the system allows the user to register by means of some entries:   * Project name * Client name * Planned project start date * Planned date for the end of the project * The value corresponding to the project budget * Managers' names * Managers' cell phone numbers   After entering all the information, the system stores that information in the database and displays a message to the user confirming the entry. If something does not match what the user typed to what is required, the system sends an error message. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| projectName | String | Maximum 30 characters |
| customerName | String | Maximum 50 characters |
| projectStartDate | Date | Minimum: current date |
| projectCompletionDate | Date | Minimum: current date |
| projectBudget | Double | Decimal numbers |
| managerName | String | Maximum 50 characters |
| phoneManager | String | Minimum 10 digits |
| Resultado o postcondición | The system stores all the information and confirms with a message whether it was registered correctly or if there was an error and you have to do it again. For now, the system will allow up to ten projects to be stored. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| confirmationMessage | String | Text: “the data were correctly recorded” |
| errorMessage | String | Text: “the information could not be saved, please enter the data again.” |

| Nombre o identificador | RF2- Management of project stages | | |
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| Resumen | Each project has six stages created automatically by the system:   * Start * Analysis * Design * Execution * Closing and follow-up * Project control   For each stage the user will be allowed to assign a start and end date (these will be planned) and other start and end dates (these will already be actual), all by means of some entries. In addition, it must be saved if the stage has been completed.  In this case, the start stage is the only one that remains active so that the user can assign dates to it.  The system will ask the user to enter the number of months that each stage lasts and this will be stored in an array.  Then the system will store all the information about the dates and will display a confirmation or error message of the data entry. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| startDatePlanned | Date | Minimum: current date |
| endDatePlanned | Date | Minimum: current date |
| actualStartDate | Date | Minimum: current date |
| mountOfMonths | Int |  |
| Resultado o postcondición | The system stores the dates entered and also stores the number of months in an array. I change the status of the stage to approved internally. And it shows the user a message confirming that the dates were saved correctly or if there was an error in your typing and you have to re-enter the dates. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| confirmationMessage | String | Text: “the data were correctly recorded” |
| errorMessage | String | Text: “the information could not be saved, please enter the data again.” |

| Nombre o identificador | RF3 - Completion of a stage of a project | | |
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| Resumen | The system indicates that the stage is finished when the user registers by means of some entries the approval of the capsule, the actual date of completion and thus internally goes from being active to inactive. Then the system will store this information and will allow the user to continue with the other stage, for this purpose it will ask the user to enter the actual start date of this stage through an entry. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| capsuleApproval | int | 1 = approved / 2 = not approved |
| actualEndDate | Date | Minimum: current date |
|  |  |  |
| Resultado o postcondición | The system stores the information, and the capsule is considered inactive. It shows the user a message confirming that the stage has been completed and allows the user to enter the start date of the next stage.  If the date does not match the previously agreed date, the system will display an error message and ask the user to retype the date. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| confirmationMessage | String | Text: “the end of the capsule was recorded correctly”. |
| errorMessage | String | Text: “if the date is not suitable”. |

| Nombre o identificador | RF4- Register knowledge capsules | | |
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| Resumen | Within the stages of the project there are knowledge capsules. For the time being, 50 will be allowed for each stage. Of these, the user will be allowed to enter by means of some entries:   * Capsule identifier * A description of the situation * A type of capsule (for now they are: Technical, management, domain and experiences) * Name of the contributor * Position of the collaborator * What has been learned from the situation described   In the description and what was learned from the situation, the user will be asked to write the symbol "#" at the beginning and at the end of the first occurrence of the key words of the topic. The system will then take the word and classify it within the characteristics of the capsule, which is called a "hashtag".  When the capsule is registered the system will display a message confirming the registration. In addition, it will allow this capsule to be approved and thus, published. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| capsuleIdentifier | String | Maximum |
| description | String | maximum 1000 characters |
| capsuleType | int | 1 = Technical, 2 = Management, 3 = Proficiency, 4 = Experiences |
| nameOfEmployee | String | Maximum 50 characteres |
| positionOfCollaborator | String | Maximum 30 characteres |
| lesson | String | Maximum 1000 characteres |
|  |  |  |
| Resultado o postcondición | The system stores all the information of the capsule, saves the words that have the symbol "#" as a characteristic of the capsule. It also displays a message to the user confirming that the capsule was registered. If there were errors with the syntax or the "#" symbol was not evident, the system will display an error message and ask the user to re-enter the information. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| confirmationMessage | String | Text: “capsule properly registered”. |
| errorMessage | String | Text:” there is no hashtags in your description or lesson”. |

| Nombre o identificador | RF5- Approval of the capsules | | |
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| Resumen | When the user selects this option the system will automatically generate the date the capsule was approved and display it to the user via an output. It will also change the status of the capsule to approved. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
|  |  |  |
| Resultado o postcondición | The system changes the status of the capsule to approved and displays the approval date generated by means of a message. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| approvalDateMessage | String | Text: “the capsule was approved on: -date of approval-“. |

| Nombre o identificador | RF6- Publication of the capsules to the organization | | |
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| Resumen | El sistema permitirá que a las cápsulas que ya fueron aprobadas se les pueda generar su HTML para ser publicadas en la intranet. Por ello el sistema, cuando el usuario lo pida, va a mostrar por medio de una salida, la url de la cápsula que se desee publicar. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
|  |  |  |
| Resultado o postcondición | The system checks that the capsule was approved and generates its url. It then presents it to the user on screen by means of an output. If the capsule is not approved the system displays an error message. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| capsuleUrl | String | Text: “The url was generated: https://www.youtube.com/shorts/QQCtuwS8DCw” |
| errorMessage | String | Text:” There is not capsules approved for publication”. |

| Nombre o identificador | RF7- Consult knowledge capsules | | |
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| Resumen | To search for a knowledge capsule the system allows the user to enter a search string on the written texts or also when entering words that are stored in "hashtag". When it finds it, the system will display a message with the desired capsule. If it does not find it, it will display a message that there is no match. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| textStringSearch | String | The same as the one placed in the capsule. |
| keywords | String | Must contain the “#” symbol |
|  |  |  |
| Resultado o postcondición | If the system finds the word it will show the user an on-screen message of the capsule they are looking for. If your word is not found the system will display a search error message. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| searchResult | String | Text : “capsule was found capsule – (Capsule name or identifier)”. |
| errorMessage | String | Text: “no matches found”. |

| Nombre o identificador | RF8- Menu | | |
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| Resumen | The system shows the user some options so that he can choose which action he wants to perform and by means of an input it allows him to choose the number of the option to execute. The options are:  1. Create a project  2. Complete a project stage  3. Register capsule  4. Approve capsule  5. Publish capsule  6. Inform the user how many of the registered capsules there are for each type of capsule (technical, management, domain and experiences).  7. Inform the user of a list of lessons learned corresponding to the capsules registered in the projects for a particular stage.  8. Inform the user the name of the project with the most capsules registered.  9. Inform the user if a collaborator (by name) has registered capsules in any project.  10. Inform the user the situations and lessons learned from the approved and published capsules, according to a search string given by the user. This search string should be found in the hashtags.  When the user enters the number of the desired option, the system will execute that option and its steps. If he enters a number that does not represent any option, then an error message is indicated by an output. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| optionSelect | int | 1 / 2 / 3 / 4 / 5 / 6/ 7 / 8 / 9 / 10 |
| Resultado o postcondición | The system executes the option chosen by the user. If what you typed does not match the options then the system displays a message that the option number does not match. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| errorMessage | String | Text: “invalid option”. |