

**SOFTWARE ENGINEERING PROBLEM SPECIFICATION TABLE, identifying the following elements.**

CLIENT	GreenSQA
USER	Service manager, collaborator and client
FUNCTIONAL REQUIREMENTS	<p>RF0: Project register</p> <p>RF1: Project search</p> <p>RF2: Stage compliance approval</p> <p>RF3: Registration of knowledge capsules</p> <p>RF4: Approval of capsules</p> <p>RF5: Publication of capsules</p> <p>RF6: Capsule consultation</p> <p>RF7: Search Budes by type</p> <p>RF8: Search Budes by collaborator</p> <p>RF9: Search list lesson learned</p>
CONTEXT OF THE PROBLEM	<p>A project will be carried out where it is required to store information related to the projects accepted from the clients, as well as to manage the stages of the projects and record the knowledge capsules generated by the collaborators in each of these stages.</p> <p>For project management, various data must be stored, such as project name, client name, planned start and end dates, project budget, and the names and cellular numbers of project managers. In the pilot version, a maximum of 10 projects will be worked with.</p> <p>The execution of the projects is divided into six stages: initiation, analysis, design, execution, closure, and project follow-up and control. Each of these stages will have a planned and actual start and end date, and approval of the completion of each stage will be recorded. In order to assign the planned dates, the user will be asked for the number of months that each stage will take.</p> <p>In each of the project stages, the collaborators will generate knowledge capsules, which will have a unique identifier, a description, a type of capsule (technical, management, domain or experiences), the name and position of the collaborator and the learning or lesson learned. It should be marked with "#" at the beginning and at the end of the keywords of the topic being</p>

	<p>addressed so that the system can extract them and relate them in a capsule feature called "hashtag". These capsules will be under review and approved for publication in HTML format on the organization's Intranet. The capsules can be searched using a search string or the "hashtags".</p>
NON-FUNCTIONAL REQUIREMENTS	<p>RF0: Quick and easy access to the capsules to be consulted by the user.</p> <p>RF1: The program must correctly store the data recorded by the user.</p> <p>RF2: The program must have an interactive interface with the user.</p> <p>RF3: The dates assigned by the system must be generated according to the present day and the day of completion.</p> <p>RF4: Availability: The system must be available when needed.</p> <p>RF5: Usability: The system must be easy to use and understand.</p> <p>RF6: Performance: The system must be able to handle the number of projects and capsules needed for the program.</p>

Name or identifier	RF0: Project register		
Summary	Once the client's project is accepted, the system will be able to register data such as: the name of the project, the name of the client, the budget value of the project, the telephone numbers of the project manager and the client. The stages should be created automatically.		
Inputs	Name of entry	Data type	Selection or repetition condition
	nameProject	String	<ul style="list-style-type: none"> <li>- String of characters and numbers.</li> <li>- Maximum 30 characters, including spaces</li> <li>- Must not be empty</li> <li>- No repetition of the name</li> </ul>
	clientName	String	<ul style="list-style-type: none"> <li>- Character string only</li> <li>- Maximum 25 characters, including spaces</li> <li>- Must not be empty</li> </ul>
	monthsByStage	int	<ul style="list-style-type: none"> <li>- Must not be empty</li> <li>- Only numerical characters</li> </ul>
	proyectBudget	Double	<ul style="list-style-type: none"> <li>- Must not be empty</li> <li>- Only numeric values</li> <li>- Maximum 15 numeric characters</li> </ul>
	managerName	String	<ul style="list-style-type: none"> <li>- Character string only</li> <li>- Maximum 25 characters, including spaces</li> <li>- Must not be empty</li> </ul>

	managerPhone	String	<ul style="list-style-type: none"> <li>- Numeric values only</li> <li>- Maximum 20 characters, including spaces</li> <li>- Must not be empty</li> </ul>
	clientPhone	String	<ul style="list-style-type: none"> <li>- Numeric values only</li> <li>- Maximum 20 characters, including spaces</li> <li>- Must not be empty</li> </ul>
Result or postcondition	The system must store the information in the database.		
Outputs	Output name	Data type	Condición de selección o repetición
	Message	String	A message will be given in the format "Project successfully registered".

Name or identifier	RF1: Project search		
Summary	The system will allow the user to query the project by means of the project name, which was previously added in the registry, will show the project with more capsules		
Inputs	Name of entry	Data type	Selection or repetition condition
	nameProject	String	<ul style="list-style-type: none"> <li>- String of characters and numbers.</li> <li>- Maximum 30 characters, including spaces</li> <li>- Must not be empty</li> </ul>
Result or postcondition	The system will show the user the project created and chosen by the user, according to the name registered.		
Outputs	Output name	Data type	Selection or repetition condition
	resultProject	String	<ul style="list-style-type: none"> <li>- Text format with the name of the project with the most capsules</li> </ul>

Name or identifier	RF2: Stage compliance approval		
Summary	The system will allow the user to approve a particular stage, the user while in the project will be able to enter the number of months each stage will last. The program will complete the stage once the user determines it, and then display the stage completion date.		
Entradas	Name of entry	Data type	Selection or repetition condition
	NumberEtapas	Int	<ul style="list-style-type: none"> <li>- No debe quedar vacío.</li> <li>- Debe tener formato numérico.</li> </ul>
Resultado o postcondición	El sistema le mostrara al usuario de que la etapa ha sido aceptada y culminara la etapa.		
Salidas	Nombre salida	Tipo de dato	Condición de selección o repetición
	MessageEtapa	String	<ul style="list-style-type: none"> <li>- Formato de texto “Analysis stage completed on 05/04/2023 Beginning of the Design stage”</li> </ul>

Name or identifier	RF3: Registration of knowledge capsules		
Summary	<p>The system will allow the collaborator to generate knowledge capsules. Each capsule will have a unique identifier, the description of the situation to be recorded, the type of capsule, which will be transmitted through a menu (technical, management, domain and experiences), the name and position of the collaborator. As well as the learning learned in the capsule. The program will only allow the registration of 50 capsules in one stage.</p> <p>The text of the unique identifier of the capsule will be marked with "#" at the beginning and at the end of the first occurrence of the key words of the identifier. Once the capsules have been created, they will be kept under review.</p>		
Inputs	Name of entry	Data type	Selection or repetition condition
	IdUnique	String	<ul style="list-style-type: none"> <li>- Character string of numbers.</li> <li>- Maximum 8 characters, including spaces</li> <li>- Must not be empty</li> </ul>
	Description	String	<ul style="list-style-type: none"> <li>- Character string.</li> <li>- Maximum 100 characters, including spaces.</li> <li>- Must not be empty</li> </ul>
	TypeBudge	String	<ul style="list-style-type: none"> <li>- Only the four available options will be allowed:               <ol style="list-style-type: none"> <li>1. Technical</li> <li>2. Management</li> <li>3. Domain</li> <li>4. Experiences</li> </ol> </li> </ul>

	NameColaborator	String	<ul style="list-style-type: none"> <li>- String of characters and numbers.</li> <li>- Maximum 20 characters, including spaces</li> <li>- Must not be empty</li> </ul>
	CargoColaborator	String	<ul style="list-style-type: none"> <li>- String of characters and numbers.</li> <li>- Maximum 25 characters, including spaces</li> <li>- Must not be empty</li> </ul>
	AprendizajeBudge	String	<ul style="list-style-type: none"> <li>- Character string.</li> <li>- Maximum 50 characters, including spaces.</li> <li>- Must not be empty</li> </ul>
Result or postcondition	The system will save the information provided in the database, to later display a satisfactory message.		
Outputs	Output name	Data type	Selection or repetition condition
	Message	String	<ul style="list-style-type: none"> <li>- Text format of the message "Capsule data has been successfully recorded".</li> </ul>



Name or identifier	RF4: Approval of capsules		
Summary	The system will have a capsule approval function. It will show the capsules that were previously registered and that were in review, the user will be able to choose which capsule to approve or leave in review through an acceptance menu. After it is approved, the approval date will be generated.		
Inputs	Name of entry	Data type	Selection or repetition condition
	OptionAprob	String	- Only the number of available options, i.e. the capsules in the stage, will be allowed to be selected.
Result or postcondition	The system will store the cap as accepted and it will be removed from the database. Subsequently the user will be shown an approval message..		
Salidas	Output name	Data type	Selection or repetition condition
	Message	String	- Text format of the message "The capsule has been approved".

Name or identifier	RF5: Publication of capsules		
Summary	Once the capsule of organizational interest is approved, the system will generate a URL, which will represent the information of the capsule. The user will be able to choose which capsule to publish.		
Inputs	Name of entry	Data type	Selection or repetition condition
	Not applicable	Not applicable	Not applicable
Result or postcondition	The system will generate a URL of the approved capsule for the user..		
Outputs	Output name	Data type	Selection or repetition condition
	URL	String	- Text format with a string of max. 150 characters

Name or identifier	RF6: Capsule consultation		
Summary	The system will allow the user to consult the capsules of a stage through the unique identifier created in the registration of the capsules, including the hashtag as a search string. This can be consulted with the unique identifier registered in the capsule.		
Inputs	Name of entry	Data type	Selection or repetition condition
	idUniqueBudge	String	<ul style="list-style-type: none"> <li>- String of characters, numbers and symbols such as #.</li> <li>- Maximum 30 characters, including spaces</li> <li>- Must not be empty</li> </ul>
Result or postcondition	The system will show the user the capsules searched with the learning information provided.		
Outputs	Output name	Data type	Selection or repetition condition
	Capsule	String	<p>If there are no capsules created with that unique identifier display a message "There are no capsules with that identifier".</p>

Name or identifier	RF7: Search Budes by type		
Summary	The system will allow the user to consult the project by means of the project name, which was previously added in the registry, show the number of capsules that a specific project has registered for each type: technical, domain, experience and management.		
	Name of entry	Data type	Selection or repetition condition

Inputs	nameProject	String	<ul style="list-style-type: none"> <li>- String of characters and numbers.</li> <li>- Maximum 30 characters, including spaces</li> <li>- Must not be empty</li> </ul>
	The system will show the user the project created and chosen by the user and the budges for type, according to the name registered.		
Outputs	Output name	Data type	Selection or repetition condition
	resultProject	String	<ul style="list-style-type: none"> <li>- Text format with a list of strings of the type of capsules and the amount it has</li> </ul>

Name or identifier	RF8: Search Budges by collaborator		
Summary	The system will allow the user to consult the collaborator by means of the employee's name, which was previously added in the capsules register, this will show the capsules that that specific employee has created or not.		
Inputs	Name of entry	Data type	Selection or repetition condition
	nameCollaborator	String	<ul style="list-style-type: none"> <li>- String of characters,not numbers.</li> <li>- Maximum 30 characters, including spaces</li> <li>- Must not be empty</li> </ul>
Result or postcondition	The system will show the user the name of the collaborator with the capsules they have created		
	Output name	Data type	Selection or repetition condition

Outputs	resultProject	String	- Text format with a list of registered capsules
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Name or identifier	RF9: Search list lesson learned		
Summary	The system will allow the user to consult the list of lessons learned from a particular stage of a project, through the name of the project and the stage, which was previously added to the registry, this will display a list of lessons learned from the capsules. registered.		
Inputs	Name of entry	Data type	Selection or repetition condition
	nameStage	String	- String of characters and numbers.  - Maximum 30 characters, including spaces  - Must not be empty
	nameProject	String	- String of characters and numbers.  - Maximum 30 characters, including spaces  - Must not be empty
Result or postcondition	The system will show the user a list of the lessons learned registered in the capsules of the selected project.		
Outputs	Output name	Data type	Selection or repetition condition
	resultProject	String	- Text format with a list of lessons learned

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