**GREENSQA PROBLEM AND REQUIREMENTS SPECIFICATION TABLE**

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| **CUSTOMER** | GreenSQA |
| **USERS** | Managers, Employees |
| **FUNCTIONAL REQUIREMENTS** | FR0: Project creation  FR1: Closing stages.  FR2: Knowledge capsule registration  FR3: Knowledge capsule approval  FR4: Knowledge capsule publication |
| **CONTEXT OF THE PROBLEM** | GreenSQA is a Technology company that works with Software Quality Assurance projects and develops projects for organizations that seek to ensure software products with the purpose of meeting high quality levels. For this, it requires a software that allows the creation of projects, the closing of stages of a project, the registration of knowledge capsules, the approbation of said capsules and the publication of them as well. |
| **NON-FUNCTIONAL REQUIREMENTS** | NFR0: The system must be simple and easy to use  NFR1: The system must be quick at showing results  NFR2: The system must be able to adapt to further updates |

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| --- | --- | --- | --- | --- |
| Identificador y nombre | *[RF0: Project creation.]* | | | |
| Resumen | *The service manager and collaborators must have access to register up to 10 projects with their respective name, client name, manager name, manager phone number, start date, closing date and budget.* | | | |
| Entradas | **Nombre entrada** | **Tipo de dato** | | **Condición valores válidos** |
| Project name | String | | Valid Project name |
| Client name | String | | Valid client name |
| Manager name | String | | Valid manager name |
| Manager phone number | String | | Proper pone number |
| Start date | Date | | Must be given in proper date format |
| closing date | Date | | Must be given in proper date format  Must be a date after the start date |
| Budget | Double | | Numerical characters only |
| Resultado o Postcondición | The given information is verified and if its valid, the project is registered in the system’s database and automatically, 6 stages are created as an attribute | | | |
| Salidas | **Nombre salida** | | **Tipo de dato** | **Formato** |
| Register confirmation | | String | Message |

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| --- | --- | --- | --- | --- |
| Identificador y nombre | *[RF1: Closing Stages.]* | | | |
| Resumen | *The system must allow the stages to be completed, going from an active to an inactive state by recording the actual closing date, and consequently activating the next stage with the actual start date. The system receives the project position and makes the stage change.* | | | |
| Entradas | **Nombre entrada** | **Tipo de dato** | | **Condición valores válidos** |
| Project name | String | | Valid Project name |
| Client name | String | | Valid client name |
| Manager name | String | | Valid manager name |
| Manager phone number | String | | Proper pone number |
| Start date | Date | | Must be given in proper date format |
| closing date | Date | | Must be given in proper date format  Must be a date after the start date |
| Budget | Double | | Numerical characters only |
| Resultado o Postcondición | The given information is verified and if its valid, the project is registered in the system’s database and automatically, 6 stages are created as an attribute | | | |
| Salidas | **Nombre salida** | | **Tipo de dato** | **Formato** |
| Register confirmation | | String | Message |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Identificador y nombre | *[RF0: Project creation.]* | | | |
| Resumen | *The service manager and collaborators must have access to register up to 10 projects with their respective name, client name, manager name, manager phone number, start date, closing date and budget.* | | | |
| Entradas | **Nombre entrada** | **Tipo de dato** | | **Condición valores válidos** |
| Project name | String | | Valid Project name |
| Client name | String | | Valid client name |
| Manager name | String | | Valid manager name |
| Manager phone number | String | | Proper pone number |
| Start date | Date | | Must be given in proper date format |
| closing date | Date | | Must be given in proper date format  Must be a date after the start date |
| Budget | Double | | Numerical characters only |
| Resultado o Postcondición | The given information is verified and if its valid, the project is registered in the system’s database and automatically, 6 stages are created as an attribute | | | |
| Salidas | **Nombre salida** | | **Tipo de dato** | **Formato** |
| Register confirmation | | String | Message |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Identificador y nombre | *[RF0: Project creation.]* | | | |
| Resumen | *The service manager and collaborators must have access to register up to 10 projects with their respective name, client name, manager name, manager phone number, start date, closing date and budget.* | | | |
| Entradas | **Nombre entrada** | **Tipo de dato** | | **Condición valores válidos** |
| Project name | String | | Valid Project name |
| Client name | String | | Valid client name |
| Manager name | String | | Valid manager name |
| Manager phone number | String | | Proper pone number |
| Start date | Date | | Must be given in proper date format |
| closing date | Date | | Must be given in proper date format  Must be a date after the start date |
| Budget | Double | | Numerical characters only |
| Resultado o Postcondición | The given information is verified and if its valid, the project is registered in the system’s database and automatically, 6 stages are created as an attribute | | | |
| Salidas | **Nombre salida** | | **Tipo de dato** | **Formato** |
| Register confirmation | | String | Message |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Identificador y nombre | *[RF0: Project creation.]* | | | |
| Resumen | *The service manager and collaborators must have access to register up to 10 projects with their respective name, client name, manager name, manager phone number, start date, closing date and budget.* | | | |
| Entradas | **Nombre entrada** | **Tipo de dato** | | **Condición valores válidos** |
| Project name | String | | Valid Project name |
| Client name | String | | Valid client name |
| Manager name | String | | Valid manager name |
| Manager phone number | String | | Proper pone number |
| Start date | Date | | Must be given in proper date format |
| closing date | Date | | Must be given in proper date format  Must be a date after the start date |
| Budget | Double | | Numerical characters only |
| Resultado o Postcondición | The given information is verified and if its valid, the project is registered in the system’s database and automatically, 6 stages are created as an attribute | | | |
| Salidas | **Nombre salida** | | **Tipo de dato** | **Formato** |
| Register confirmation | | String | Message |

**Functional requirements analysis** **table**

| Name or identifier | FR1: PROJECT CREATION | | |
| --- | --- | --- | --- |
| Summary | The system must allow the creation of projects (Maximum 10), as well as the registration of project information, such as project name, planned start and end dates, project budget and individuals related to the project (Managers and client) | | |
| Tickets | Entry name | Data type | Selection or repetition condition |
| projectName | String | Valid characters, required |
| durationInMonthsPerStage | Int array | Required, only positive integers, size 6. |
| Budget | Double | Numbers only |
| projectManagers | Manager | Managers already registered in the system |
| clientData | Array String | Obligatory. |
| Result or postcondition | The new project is added to the system with its attributes and its 6 automatically created stages, in addition to calculating and assigning the planned dates per month. (Analysis, design, execution, closure and monitoring and control of the project. ). | | |
| Outputs | Output name | Data type | Format |
| Confirmation | String | Message |

| Name or identifier | FR2: COMPLETION OF STAGES | | |
| --- | --- | --- | --- |
| Summary | The system must allow the stages to be completed, going from an active to an inactive state by recording the actual closing date, and consequently activating the next stage with the actual start date. The system receives the project position and makes the stage change. | | |
| Tickets | Entry name | Data type | Selection or repetition condition |
| Project | String | Existing project |
| Result or postcondition | The inputs are validated and the system proceeds to inactivate the capsule with the current closing date. | | |
| Outputs | Output name | Data type | Format |
| Confirmation | String | Message |

| Name or identifier | FR3: CAPSULE REGISTRATION | | |
| --- | --- | --- | --- |
| Summary | The system must allow the user to generate knowledge capsules, the user chooses which project and collaborator assigns to the capsule and enters description, type and lesson learned. And obligatorily the capsule must contain keywords between '#' and then register them in the system, and then go to review state where it will be available for the manager's review. | | |
| Tickets | Entry name | Data type | Selection or repetition condition |
| projectPosition | Int | Existing project |
| collaboratorPosition | Int | Existing collaborator |
| Description | String | Valid characters, Required |
| type | String | [technical, management, domain or experiences] |
| lesson | String | Valid characters, Required |
| Result or postcondition | The system adds the new registered capsule with a unique id and collaborator information. The keywords are then assigned and put into a review state. | | |
| Outputs | Output name | Data type | Format |
| Confirmation | String | Message |

| Name or identifier | FR4: CAPSULE APPROVAL | | |
| --- | --- | --- | --- |
| Summary | The managing user chooses a project and has a list of the pending capsules for review ordered and classified where he chooses which capsules to approve, enters the option and the system updates the status of the capsule. | | |
| Tickets | Entry name | Data type | Selection or repetition condition |
| projectPosition | Int | Valid option |
| optionCapsule | Int | Valid option |
| Result or postcondition | The system updates the status of the capsule to approved or not approved along with the date of the action. | | |
| Outputs | Output name | Data type | Format |
| Confirmation | String | Message |

| Name or identifier | FR5: CAPSULE PUBLICATION | | |
| --- | --- | --- | --- |
| Summary | The system provides the manager with the option to publish the approved capsules of organizational interest in HTML format depending on the project he chooses, and then gives him a URL of the intranet of the Organization where they are published. | | |
| Tickets | Entry name | Data type | Selection or repetition condition |
| projectPosition | Int | Valid option |
| Result or postcondition | The system publishes the capsule in HTML format and returns to the user a URL of its location | | |
| Outputs | Output name | Data type | Format |
| URL | String | Message |

| Name or identifier | FR6: SHOW NUMBER OF CAPSULES REGISTERED | | |
| --- | --- | --- | --- |
| Summary | The system must present to the managing user the number of capsules that there are for each type. | | |
| Tickets | Entry name | Data type | Selection or repetition condition |
| N/A | N/A | N/A |
| Result or postcondition | The system shows on screen the quantities ordered by each type of capsule | | |
| Outputs | Output name | Data type | Format |
| capsulesAmount | Int | Message |

| Name or identifier | FR7: SHOW LESSONS LEARNED | | |
| --- | --- | --- | --- |
| Summary | The system should present the user with a list of lessons learned from the registered capsules of all projects, but at a particular stage chosen by him. | | |
| Tickets | Entry name | Data type | Selection or repetition condition |
| stageLessons | String | Existing stage |
| Result or postcondition | The system displays on screen the lessons learned from the specific stage of all projects | | |
| Outputs | Output name | Data type | Format |
| lessonsInStage | String | Message, list |

| Name or identifier | FR8: SHOW THE PROJECT WITH MORE CAPSULES | | |
| --- | --- | --- | --- |
| Summary | The system must identify the project with more capsules within the system and then display the name to the user. | | |
| Tickets | Entry name | Data type | Selection or repetition condition |
| N/A | N/A | N/A |
| Result or postcondition | The system displays the name of the project with the most capsules. | | |
| Outputs | Output name | Data type | Format |
| fullerProject | String | Message |

| Name or identifier | FR9: VERIFY CAPSULE REGISTRATION PER EMPLOYEE | | |
| --- | --- | --- | --- |
| Summary | The system must allow a search by the managing user of any collaborating user, and show if he has registered capsules in any project. | | |
| Tickets | Entry name | Data type | Selection or repetition condition |
| employeeName | String | Existing name |
| Result or postcondition | The system displays a 'Yes' or a 'No' depending on whether the customer has registered capsules or not. | | |
| Outputs | Output name | Data type | Format |
| Confirmation | String | Message |

| Name or identifier | FR10: SHOW LESSONS LEARNED BY SEARCH | | |
| --- | --- | --- | --- |
| Summary | The system should make it possible to display on screen the lessons learnedfrom approved and published capsules by searching for the wordsor hashtags | | |
| Tickets | Entry name | Data type | Selection or repetition condition |
| Search | String | Obligatory |
| Result or postcondition | The system displays on the screen all lessons that meet the conditions or the message that the lesson was not found. | | |
| Outputs | Output name | Data type | Format |
| lesson | String | Message, list |
|  | searchFailed | String | Message |