

Identificación del problema y análisis de requerimientos

Caso de Estudio :

Cliente	<i>Icesi University - Environmental Sustainability Area</i>
Usuario	<i>Researcher, Information Collector, Visitor</i>
Contexto del problema	<i>It involves developing a software system for Icesi University, specifically for its Environmental Sustainability Area. This system must manage sustainability projects in four key areas, allowing the interaction of different users with specific roles. A friendly interface, quick response to queries and the ability to adapt to mobile devices or web browsers is required. The system must ensure secure storage, automatic generation of test objects and flexibility for future needs. The main constraints are data security, accessibility from mobile devices and adaptability to future changes in the University's sustainability needs.</i>
Requerimientos funcionales	<p>RF1 - Registration of users with different roles and privileges.</p> <p>RF2 - Project management: registration, modification and deletion.</p> <p>RF3 - Evidence management: registration, modification and elimination.</p> <p>RF4 - Management of points of interest: registration, modification and deletion.</p> <p>RF5 - Creation of test objects for each type of user, project and review.</p> <p>RF6 - Detailed query of pillars</p> <p>RF7 - Detailed project consultation</p>
Requerimientos no funcionales	<ul style="list-style-type: none"><i>- Timely response to queries (3 ms).</i><i>- Simple, simple and easy-to-use interface from mobile devices or web browsers.</i><i>- User interfaces designed by a UX/UI specialist.</i><i>- System flexibility for future implementations and additional queries.</i><i>- Automatic generation of objects for testing when requested by the user.</i><i>- Ability to populate knowledge bases for data analysis.</i><i>- Secure and efficient storage of information.</i>

Identificador y nombre	<i>[RF1-Register User]</i>		
Resumen	<i>The system allows the registration of users with specific roles: Researcher, Information Collector and Visitor.</i>		
Entradas	Nombre entrada	Tipo de dato	Condición valores válidos
	<i>name_User:</i>	<i>String</i>	<i>[Character string, 5-20 alphanumeric characters]</i>
	<i>password:</i>	<i>String</i>	<i>[Character string, minimum 8 characters, including at least one uppercase letter, one lowercase letter, and one number]</i>
	<i>type_User:</i>	<i>String</i>	<i>[Character string]</i>
	<i>personal_Information:</i>	<i>String</i>	<i>[Depending on the type of user, certain information will be requested]</i>
Resultado o Postcondición	<i>Users are registered in the system with their respective roles and privileges.</i>		
Salidas	Nombre salida	Tipo de dato	Formato
	<i>record_User_Successful:</i>	<i>String</i>	<i>[Confirmation message]</i>

Identificador y nombre	<i>[RF2-Manage Projects]</i>		
Resumen	<i>Allows the registration, modification and deletion of projects in the system.</i>		
Entradas	Nombre entrada	Tipo de dato	Condición valores válidos
	<i>name_Project:</i>	<i>String</i>	<i>[Character string]</i>
	<i>id_Project:</i>	<i>double</i>	<i>[maximum 10 numbers]</i>
	<i>description_Project:</i>	<i>String</i>	<i>[Text]</i>
	<i>project_Status</i>	<i>boolean</i>	<i>[active / desactive]</i>
	<i>start_Date:</i>	<i>date</i>	<i>[dd-mm-yyyy format]</i>
	<i>end_Date:</i>	<i>date</i>	<i>[dd-mm-yyyy format]</i>
Resultado o Postcondición	<i>Projects are registered, modified or deleted in the system depending on the action taken.</i>		
Salidas	Nombre salida	Tipo de dato	Formato
	<i>confirmation_Operation_Made:</i>	<i>String</i>	<i>[Success message]</i>

Identificador y nombre	<i>[RF3-Manage Evidence]</i>		
Resumen	<i>Allows the registration, modification and deletion of evidence associated with projects in the system.</i>		
Entradas	Nombre entrada	Tipo de dato	Condición valores válidos
	<i>name_Descriptive Evidence:</i>	<i>String</i>	<i>[Character string]</i>
	<i>description_detail ed_Evidence:</i>	<i>String</i>	<i>[Text]</i>
	<i>type_Evidence:</i>	<i>String</i>	<i>[textual reviews or files]</i>
	<i>registration Date:</i>	<i>date</i>	<i>[dd-mm-yyyy format]</i>
	<i>project_associate d:</i>	<i>String</i>	<i>[Reference to related project]</i>
Resultado o Postcondición	<i>The evidence is recorded, modified or deleted in the system depending on the action taken.</i>		
Salidas	Nombre salida	Tipo de dato	Formato
	<i>confirmation_Oper ation Made:</i>	<i>String</i>	<i>[Success message]</i>

Identificador y nombre	<i>[RF4-Manage Points of Interest]</i>		
Resumen	<i>Allows the registration, modification and deletion of points of interest related to projects in the system.</i>		
Entradas	Nombre entrada	Tipo de dato	Condición valores válidos
	<i>name_Point_Inter est:</i>	<i>String</i>	<i>[Character string]</i>
	<i>code:</i>	<i>String</i>	<i>[Alphanumeric string]</i>
	<i>x Coordinates:</i>	<i>int</i>	<i>[Integers, format[5,5]]</i>
	<i>y Coordinates:</i>	<i>int</i>	<i>[Integers, format[5,5]]</i>
	<i>physical_location map:</i>	<i>String</i>	<i>[Text]</i>
Resultado o Postcondición	<i>The points of interest are registered, modified or deleted in the system depending on the action performed.</i>		
Salidas	Nombre salida	Tipo de dato	Formato
	<i>confirmation_Oper ation Made:</i>	<i>String</i>	<i>[success message]</i>

Identificador y nombre	<i>[RF5-Test Objects]</i>		
Resumen	<i>Generate objects with predefined values for each type of user, project and review for system testing purposes.</i>		
Entradas	Nombre entrada	Tipo de dato	Condición valores válidos
	<i>type_User:</i>	<i>String</i>	<i>[Character string]</i>
	<i>type_Project:</i>	<i>String</i>	<i>[Character string]</i>
	<i>type_Review:</i>	<i>String</i>	<i>[Character string]</i>
Resultado o Postcondición	<i>Test objects are created and available in the system for testing.</i>		
Salidas	Nombre salida	Tipo de dato	Formato

Identificador y nombre	<i>[RF6-Consult Detailed Information of a Pillar and List of Associated Projects]</i>		
Resumen	<i>Allows you to view detailed information about a pillar, including the list of projects associated with that pillar.</i>		
Entradas	Nombre entrada	Tipo de dato	Condición valores válidos
	<i>selected_Pillar:</i>	<i>String</i>	<i>[Character string]</i>
Resultado o Postcondición	<i>Detailed information of the pillar and related projects is displayed on the user interface.</i>		
Salidas	Nombre salida	Tipo de dato	Formato
	<i>detail_Pilar_Project List:</i>	<i>String</i>	<i>[Text]</i>

Identificador y nombre	<i>[RF7-Consult Detailed Information of a Project and Amount of Evidence]</i>		
Resumen	<i>Allows you to view detailed information about a project, including the amount of review-type evidence and other related evidence.</i>		
Entradas	Nombre entrada	Tipo de dato	Condición valores válidos
	<i>selected_Project:</i>	<i>String</i>	<i>[Character string]</i>
Resultado o Postcondición	<i>Detailed project information and the amount of evidence are displayed on the user interface.</i>		
Salidas	Nombre salida	Tipo de dato	Formato
	<i>detail_Proyect_Evidencias_Types:</i>	<i>String</i>	<i>[Text]</i>