



Mälardalen University
School of Innovation, design and engineering
Västerås, Sweden

Component Technologies - 7.5 hp - CDT401

COMPONENT REPOSITORY

Requirements Description

Anton Roslund
ard15003@student.mdh.se

Cécile Cayère
cce18001@student.mdh.se

Milos Ojdanic
moc16001@student.mdh.se

Stanislas Pedebearn
spn18013@student.mdh.se

Vincenzo Stoico
vso18003@student.mdh.se

October 4, 2018

1 LOGIN function

Code	<i>RC-RQ-001</i>
Function	Login into the platform.
Description	The user with the role Admin has a permission to access the system.
Input(s)	Username, Password.
Source	Username reads out from a database, Passwords reads out from a database, Role reads out from a database.
Output(s)	Redirection to the welcome page of the system.
Destination	The system work-space.
Action	After a user enters personal credentials and press button submits, the system validates inputs with the database values. If values are compatible with those in the database, the user is redirected to the system welcome page. In the case of invalid credentials, this means that inputs are not compatible with those in the database, user notifications about the invalidity of credentials.
Requirements	None.
Pre-condition(s)	The Admin is registered in the system database.
Post-condition(s)	The Admin is logged in.
Exceptions	The Admin credentials are valid, he does not receive notification regarding the invalidity, but the system does not redirect to the welcome page.

2 SHOWLIST function

Code	<i>RC-RQ-002</i>
Function	Show list of components in repository.
Description	The user can see the list of components which are on the database.
Input(s)	None.
Source	None.
Output(s)	List of components.
Destination	Front-end.
Action	Display the components list.
Requirements	None.
Pre-condition(s)	None.
Post-condition(s)	The list is correctly displayed.
Exceptions	List does not appear correctly or is not updated.

3 DOWNLOAD function

Code	<i>RC-RQ-003</i>
Function	Download component from repository.
Description	The user can download a component which is present in the database through a unique link.
Input(s)	The component identifier.
Source	Database with all available components.
Output(s)	The file that represents the component (e.g. dll, exe).
Destination	Client.
Action	When you access to a valid download link, the download of the component starts.
Requirements	None.
Pre-condition(s)	None.
Post-condition(s)	None.
Exceptions	Download does not start.

4 ADD function

Code	<i>RC-RQ-004</i>
Function	Add component to repository.
Description	An administrator can add a new component on the repository. To do so, the administrator has to put the Title and the Description of the component and has to import the Component itself.
Input(s)	Title (text), Description (text), Component (code).
Source	Inputs of the administrator.
Output(s)	Notification.
Destination	The database keeping the components.
Action	The new component is saved on the database.
Requirements	Title and Description fields have to be filled. The component has to be imported on the platform.
Pre-condition(s)	Constraints validated.
Post-condition(s)	The new component is added to the component database. An identifier is selected by the database and assigned to the component.
Exceptions	If the constraints are not met, there is a notification to the administrator that explains why the operation was not executed. Furthermore, the new component is not added to the component database.

5 REMOVE function

Code	<i>RC-RQ-005</i>
Function	Remove component from repository.
Description	When a user is connected to the system, it begins an administrator. This role allows removing a component on the repository. To do so, the administrator clicks on the remove button next to the chosen component.
Input(s)	Identifier of the component (integer).
Source	The identifier is determined by the button on which the administrator has clicked.
Output(s)	Notification.
Destination	The database keeping the components.
Action	The chosen component is removed from the database.
Requirements	The component has to exist in the component database.
Pre-condition(s)	The identifier is correct and appears on the component database.
Post-condition(s)	The chosen component is removed from the database. Its identifier is free and can be taken by a new component in the future.
Exceptions	If the identifier is wrong, the chosen component is not removed from the database and a notification is sent to the administrator.

6 MODIFY function

Code	<i>RC-RQ-006</i>
Function	Modify component in repository.
Description	The administrator can modify a component on the repository. To do so, the administrator has to modify the title and/or the description of the component and/or the component itself.
Input(s)	Title (text), Description (text), Component (code).
Source	The title, description and component input by the administrator.
Output(s)	Notification.
Destination	The database keeping the components.
Action	The new version of the component is saved on the database.
Requirements	Title and Description fields have to be filled. The component has to be imported on the platform.
Pre-condition(s)	Title and Description fields are not equal empty. The component is correctly imported.
Post-condition(s)	The component is modified on the component database.
Exceptions	If the fields are not correctly satisfied, there is a notification to the administrator that explains why the operation was not executed. Furthermore, the new component is not modified on the component database.