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Testing

Document

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Summary

1. Introduction

1.1 Support documents for testing

In order to better understand the various test cases presented later may be beneficial to make use of the documents presented by us during the design phase as the RASD and DD.
In addition we provide the source code of the web application to allow the various tests.

2. Test Cases

This section presents the possible tests for the most important functionalities provided by our web application after the implementation phase.

2.1 Log in and Sign up

GOAL	User registration
ENVIROMENT	The Sign up Page (*registration.xhtml).*
INPUT	Random user information: *Name, Surname, E-mail, Password and Confirmation Password.* (All these inputs are valid). In addition, the system automatically inserts a default image for the user during the registration phase.
EXPECTED OUTPUT	The system correctly saves the new user.
OBTAINED OUTPUT	The same as the expected. Information about new user is correctly stored into the database.
FINAL OUTPUT	The system redirects to the Home Page (*home.xhtml)* to allow the next operation.
POSSIBLE ERRORS	• **Empty fields**: the system prevent the sign up phase to proceed (no data previously typed lost); • **Not valid email-address**: the system prevent the sign up phase to proceed (no data previously typed lost); • **Different confirmation password**: the system prevent the sign up phase to proceed (no data previously typed lost); • **E-mail address already in use**: the system prevent the sign up phase to proceed and shows a specific error message (no data previously typed lost);

GOAL	User log in
ENVIROMENT	The Home Page (*home.xhtml).*
INPUT	E-mail address and password already stored into the database.
EXPECTED OUTPUT	The system confirms the log in.
OBTAINED OUTPUT	The same as the expected.
FINAL OUTPUT	The system redirects to the User's Home Page (*user_home.xhtml*).
POSSIBLE ERRORS	• **Empty fields**: the system prevent the log in phase to proceed showing a log in failed exception (no data previously typed lost); • **The user enters not correct information**: the system prevent the sign up phase to proceed showing a log in failed exception (no data previously typed lost);

2.2 Change profile information and calendar privacy to "private".

After the registration, user's calendar privacy is public by default. So other users can view it. In this test case we change it to private.

GOAL	Change profile information and calendar privacy
ENVIROMENT	The Modify Page (modify_account*.xhtml).*
INPUT	(We created a new user before) New profile information different from the actual user information stored into the database: Name, Surname, Phone Number, Password and Avatar. Switch calendar privacy from "public" to "private".
EXPECTED OUTPUT	The system confirms the changes of the profile information and the calendar privacy is stored as "private". So if other users access this user Home Page they are not able to view his calendar.
OBTAINED OUTPUT	The same as the expected. The new information are correctly stored into the database.
FINAL OUTPUT	The system redirects to the User's Home Page (*user_home.xhtml*).
POSSIBLE ERRORS	• **Empty fields**: the system prevent the changes (no data previously typed lost); • **Different confirmation password**: the system prevent the changes (no data previously typed lost); • **Not valid image selected**: the system prevent the changes (no data previously typed lost);

2.3 Search other users and view his page

Assumptions:

- At least two users registered into the system

GOAL	Search other users and view his page
ENVIROMENT	The Home Page of the user who wants to search.
INPUT	E-mail, or Name, or Surname of another existing user (entered in the search bar).
EXPECTED OUTPUT	The system shows a clickable list of users found.
OBTAINED OUTPUT	The same as the expected. The system shows a clickable list of users found and, after choosing one, shows his page.
FINAL OUTPUT	The system after the searching redirects to the Results Page (search_result.xhtml) and if a user his selected redirects to his generic page (user.xhtml).
POSSIBLE ERRORS	• **Empty fields**: nothing happens; • **User enters not valid parameter**: the system redirects to the Results Page in which the result list will contain a “not found” message.

2.4 Create new event

During the creation of the event is possible to have the weather forecasts for the next 16 days from the current date clicking on the specific button named: “Get weather condition”. No information are stored into the database during this phase, it’s only a support for the user so he can decide the most appropriate date for his event.

GOAL	Create new event
ENVIROMENT	The creation of the event takes place in the Create Event Page (create_event.xhtml) reachable from the Calendar Page (calendar_page.xhtml).
INPUT	Event information: Name, Description, Start Time, End Time, Location, Privacy, Location type (Indoor or Outdoor).

	Invited users (selected from a search bar).
EXPECTED OUTPUT	Event correctly created, its information are correctly stored into the database and the event is added to the user calendar page During the creation the system stores into the database the weather forecast associated to the event Date and Location (if available). In addition, if the user has invited other users to the event, the system stores a notification of type "INVITATION" addressed to each of them into the database and then they are able to view it in their Notifications Page.
OBTAINED OUTPUT	The same as the expected.
FINAL OUTPUT	The system redirects to the Calendar Page (calendar_page.xhtml).
POSSIBLE ERRORS	• **Empty fields**: the system prevent the creating phase to proceed (no data previously typed lost); • **The weather forecast associated to the event date is not available**: the system still creates the event saving into the database "not available" under the voice weather information of the event. The weather forecast for this event will be updated later. • **The weather service unreachable**: the system still creates the event saving into the database "not available" under the voice weather information of the event. The weather forecast for this event will be updated later.

2.5 Event update

During the update of the event is possible to have the weather forecasts for the next 16 days from the current date clicking on the specific button named: “Get weather condition”. No information are stored into the database during this phase, it’s only a support for the user so he can decide the most appropriate date for his event.

GOAL	Update an event
ENVIROMENT	The update of the event takes place in the Modify Event Page (modify_event.xhtml) reachable from the Calendar Page (calendar_page.xhtml) by selecting an event of the calendar and clicking the button “Modify event”.
INPUT	(We created an event before) Event information: Name, Description, Start Time, End Time, Location, Privacy, Location type (Indoor or Outdoor). Invited users (selected from a search bar).
EXPECTED OUTPUT	Event correctly updated, its information are correctly stored into the database and the event is updated to the user calendar page During the update the system stores into the database the weather forecast associated to the event Date and Location (if available). In addition, if the user has invited other users to the event, the system stores a notification of type “INVITATION” addressed to each of them into the database and then they are able to view it in their Notifications Page. The other already invited users will still see their invitation to the event but the event details is updated. If the event has already participants the system deletes them from the participants list and stores a notification of type “MODIFICATION” addressed to each of them into the database so then they are able to view it in their Notifications Page and can decide whether to accept the changes or not.

OBTAINED OUTPUT	The same as the expected.
FINAL OUTPUT	The system redirects to the Calendar Page (calendar_page.xhtml).
POSSIBLE ERRORS	• **Empty fields**: the system prevent the updating phase to proceed (no data previously typed lost); • **The weather forecast associated to the event date is not available**: the system still updates the event saving into the database "not available" under the voice weather information of the event. The weather forecast for this event will be updated later. • **The weather service unreachable**: the system still updates the event saving into the database "not available" under the voice weather information of the event. The weather forecast for this event will be updated later. • **The user invites users already invited**: the system prevent the updating phase to proceed (no data previously typed lost);

2.6 Delete an event

GOAL	Delete an event
ENVIROMENT	The delete of the event takes place in the Calendar Page (calendar_page.xhtml) by selecting an event of the calendar and clicking the button "Delete event".
INPUT	No inputs
EXPECTED OUTPUT	Event correctly deleted from the database and from the user calendar page. In addition, the system deletes every notification associated to the event so the invited users will no longer be able to view them. If the event had participants the system creates a new notification of type "DELETION" addressed to each of the participants with the details of the deleted event so they can view it in their Notifications Page.

OBTAINED OUTPUT	The same as the expected.
FINAL OUTPUT	The system redirects to the Calendar Page (calendar_page.xhtml).
POSSIBLE ERRORS	

2.7 Change the event privacy to "private".

For this case we test two type of input:

- One organizer of an event declared private and no participants. (In the system there is at least another user who can visit the organizer Calendar Page);
- One organizer of an event declared private and at least one participants.

GOAL	Change the event privacy to "private"
ENVIROMENT	The change of the event privacy takes place in the Modify Event Page (modify_event.xhtml) reachable from the Calendar Page (calendar_page.xhtml) by selecting an event of the calendar and clicking the button "Modify event".
INPUT	Event information: Name, Description, Start Time, End Time, Location, Privacy ("Private"), Location type (Indoor or Outdoor). Invited users (selected from a search bar).
EXPECTED OUTPUT	SAME AS THE UPDATE CASE: *Event correctly updated, its information are correctly stored into the database and the event is updated to the user calendar page During the update the system stores into the database the weather forecast associated to the event Date and Location (if available).* *In addition, if the user has invited other users to the event, the system stores a notification of type "INVITATION" addressed to each of them into the database and then they are able to view it in their Notifications Page.* *The other already invited users will still see their invitation to the event but the event details is updated.*

	If the event has already participants the system deletes them from the participants list and stores a notification of type "MODIFICATION" addressed to each of them into the database so then they are able to view it in their Notifications Page and can decide whether to accept the changes or not. SPECIFIC BEHAVIOUR FOR PRIVATE PRIVACY: The event is private so if other users who do not participate to event access to our Calendar Page they will see only the date of the event but not the details and the name of the event that will be "busy" by default. The participants of the event, instead, can view the details of the event in their own Calendar Page and the organizer's one. Also the organizer can view the details of the event in his own Calendar Page and the participant's one.
OBTAINED OUTPUT	The same as the expected.
FINAL OUTPUT	The system redirects to the Calendar Page (calendar_page.xhtml).
POSSIBLE ERRORS	• **Empty fields**: the system prevent the updating phase to proceed (no data previously typed lost); • **The weather forecast associated to the event date is not available**: the system still updates the event saving into the database "not available" under the voice weather information of the event. The weather forecast for this event will be updated later. • **The weather service unreachable**: the system still updates the event saving into the database "not available" under the voice weather information of the event. The weather forecast for this event will be updated later. • **The user invites users already invited**: the system prevent the updating phase to proceed (no data previously typed lost);

2.8 Accept an invitation

Assumption:
The behaviour of this functionality is the same in the case of event updated notification.

GOAL	Accept an invitation
ENVIROMENT	The Notification Page (notification_page.xhtml) of the invited user.
INPUT	Before we have create an event and we have invited another existing user. Then we logged in with the last one. The we selected the invitation (or modification) , view the related event details and click on “Accept”
EXPECTED OUTPUT	The system update the list of participants of the event adding the user has accepted the event and the event updated is stored into the database. The system update the event collection of the user and the updated user is stored into the database.
OBTAINED OUTPUT	The same as the expected. The event and the user are correctly stored into the database and if the user enters his Calendar Page he will find the event he has just accepted.
FINAL OUTPUT	The system after the event accepting redirects to the Notification Page (notification_page.xhtml).
POSSIBLE ERRORS	

2.9 Updating the weather and suggestion in case of bad weather

Some introduction details:
The update of the weather conditions for an event happens through the use of a timer inside a session bean. The timer is now set to makes updates one time per day at the 2:30 am but when we have tested this functionality we set it to make updates every 5 minutes (because the small amount of data into the database allow it).

In a real platform is supposed that the server is always up and it seemed reasonable that that the updates of the event are executed during the night.
For testing this functionality in the short time we suggest to modify the timer delay inside the source code.

GOAL	Updating the weather and suggestion in case of bad weather
ENVIROMENT	The update of the weather conditions for an event happens through the use of a timer inside a session bean
INPUT	Before we created two events with bad weather conditions. One with participants and one without. The one without participants is created so that missing three days.to it while the second so that missing one day to it. We chose the dates for the two event so that the weather forecast contained bad weather condition and so that a near sunny they is available.
EXPECTED OUTPUT	When it is time (that is set inside the timer) the system check for all the event stored into the database a new weather forecast. If the weather forecast contains a bad weather condition and three days left from the current date, the system create a new notification of type “WEATHERALERTFOROWNER” addressed to the organizer. In addition the system check what is the nearest sunny day (if available) for the event and, if exists, it generates a new notification of type “Suggestion” with the detail of the weather associated. If the weather forecast contains a bad weather condition and one days left from the current date, the system create a new notification of type “WEATHERALERTFORALL” addressed to the participants (if exist). IN OUR TEST CASE: We expect that in the Notification Page of the organizer of the first event there are the “WEATHERALERTFOROWNER” notification and the “SUGGESTION” notification. The suggestion should

	contain the date we saw before during the creation of the event. We also expect that each of the participants of the second event has in his Notification Page the "WEATHERALERTFOROWNER" notification.
OBTAINED OUTPUT	The same as the expected.
FINAL OUTPUT	The display remains on the Notification Page.
POSSIBLE ERRORS	• **The weather forecast associated to the event date is not available**: the system still updates the event saving into the database "not available" under the voice weather information of the event. The weather forecast for this event will be updated later. • **The weather service unreachable**: the system still updates the event saving into the database "not available" under the voice weather information of the event. The weather forecast for this event will be updated later. • **The system cannot find a near sunny day**: the system always generates the suggestion after bad time but in the specifications inserts "No suggestion about weather available for the event".