



POLITECNICO
MILANO 1863

Software Engineering for Geoinformatics

Test Report

Web-Based Geospatial Data Analysis Application on North Rupununi Wetland Guyana, South America

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1 Purpose:

This document describes the geoapp web application testing plan, regarding the implementation of the described functions in the rasd and design document. And presenting the evaluation of the testing process.

This is the web application documents and code on the github

<https://github.com/Ali-bader/RASD-G5>

2 Overview:

The testing procedure have been done for the geoapp web application functions which aims to provide data for the members about different aspects of the geospatial and statistical data of the area of north Rupununi wetland Guyana.

3 Testing scope:

Through out this document the testing of this functions have been done:

1\ login

2\ registration

3\ add data

4\ add comment

5\ edit comment

6\ delete comment

7\ logout

4 Out of scope:

The load test was not performed.

5 Metrics:

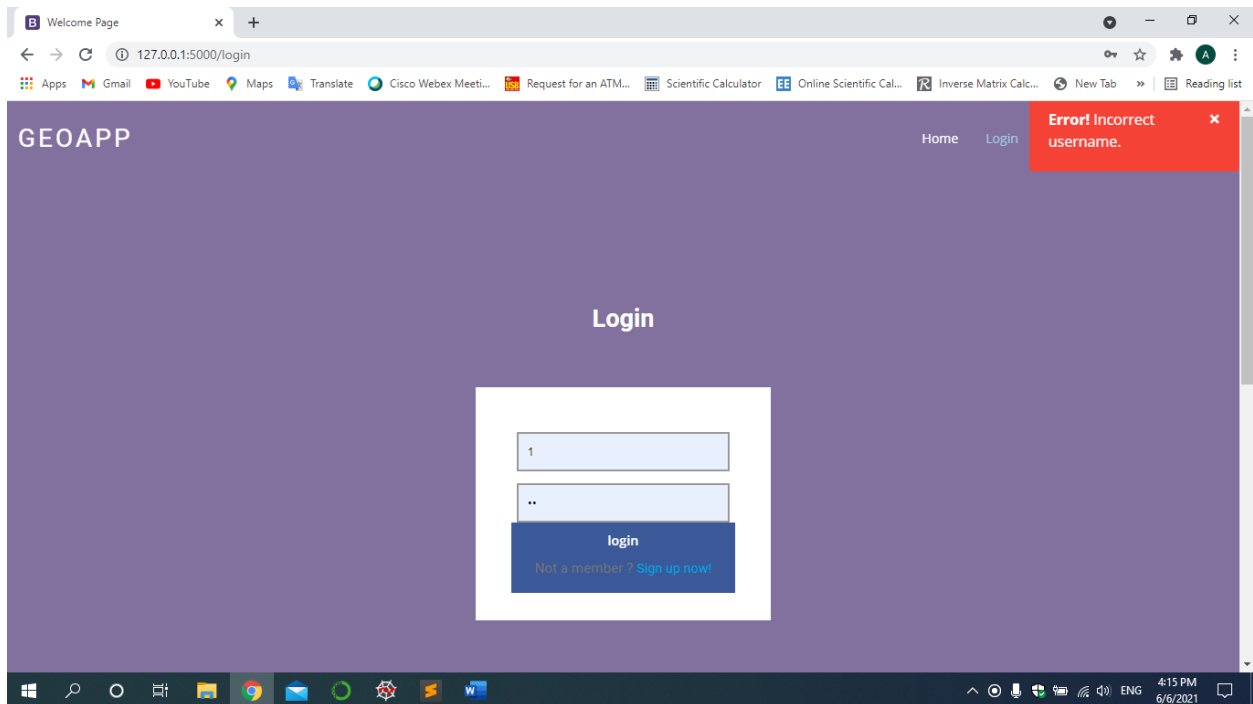
Test cases planned	Test cases executed	Test cases passed	Test cases failed
15	15	15	0

6 Tested functions:

6.1 Login:

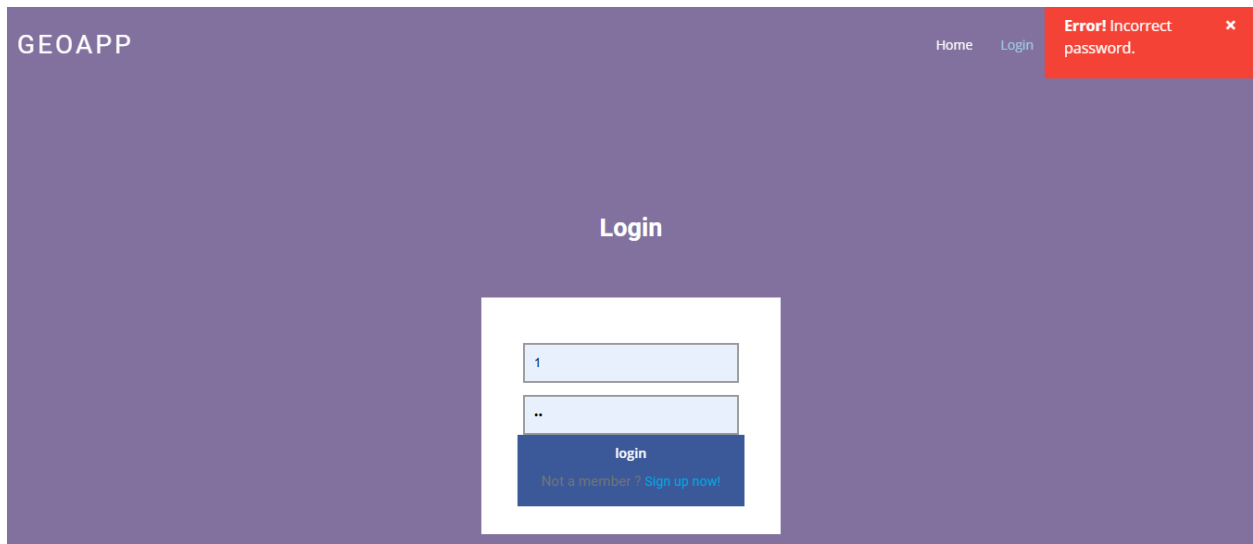
6.1.1 Incorrect username:

If the member entered a username that is not in the database the software displays a message “incorrect username”



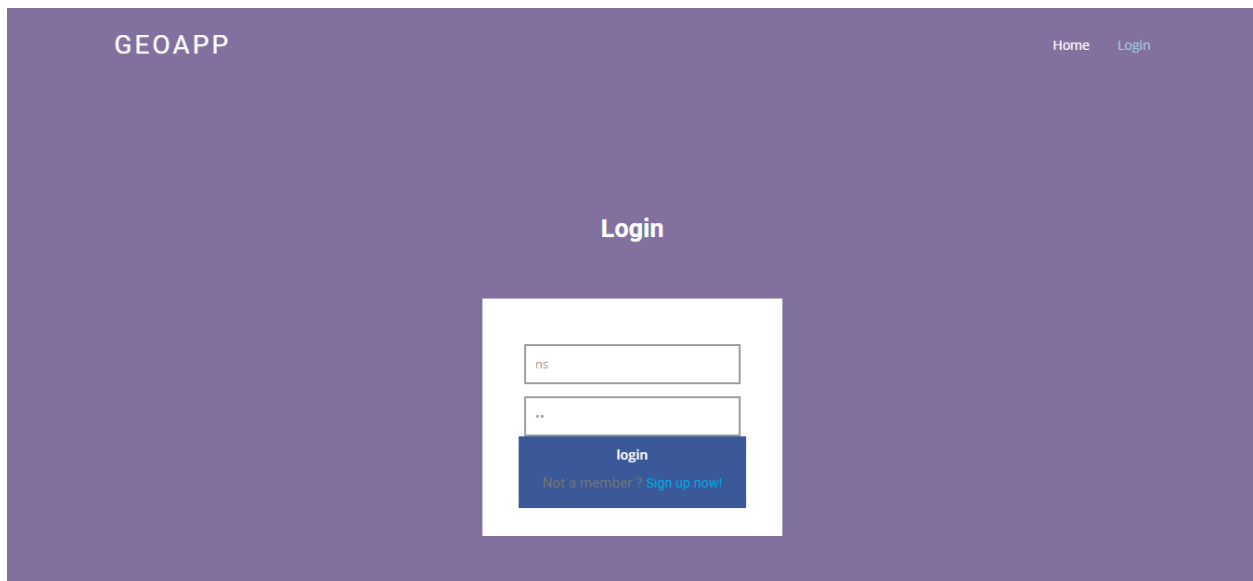
6.1.2 Incorrect password:

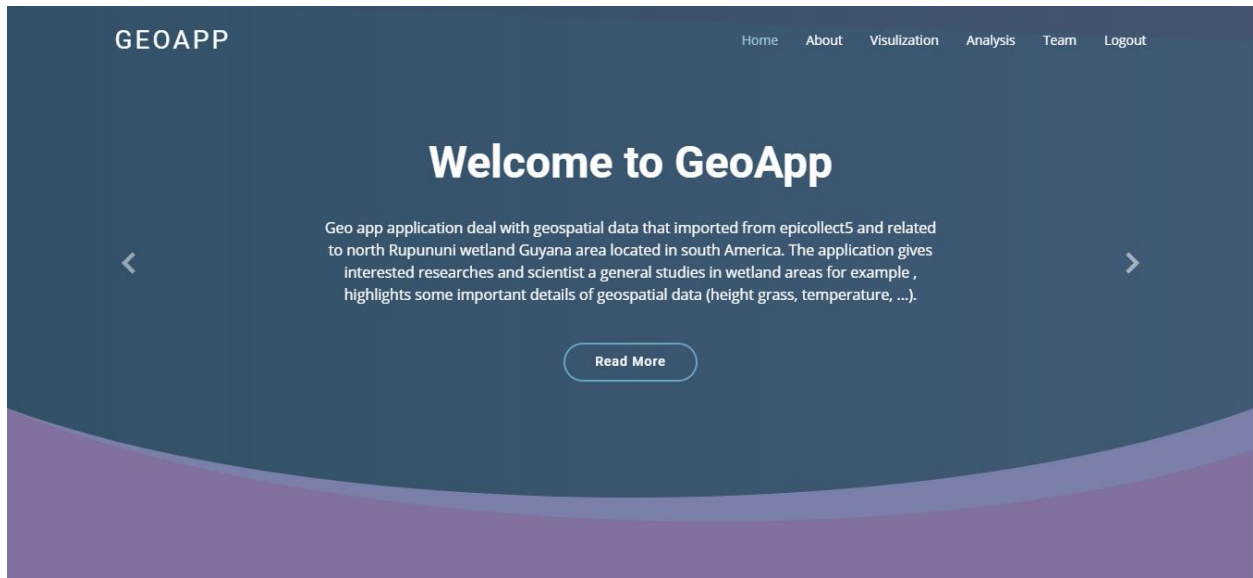
If the member entered a password that is not in the database the software displays a message “incorrect password”



6.1.3 Correct username and password:

If the username and password entered by the member are correct then the login is successful and the software redirects the member to the home page.

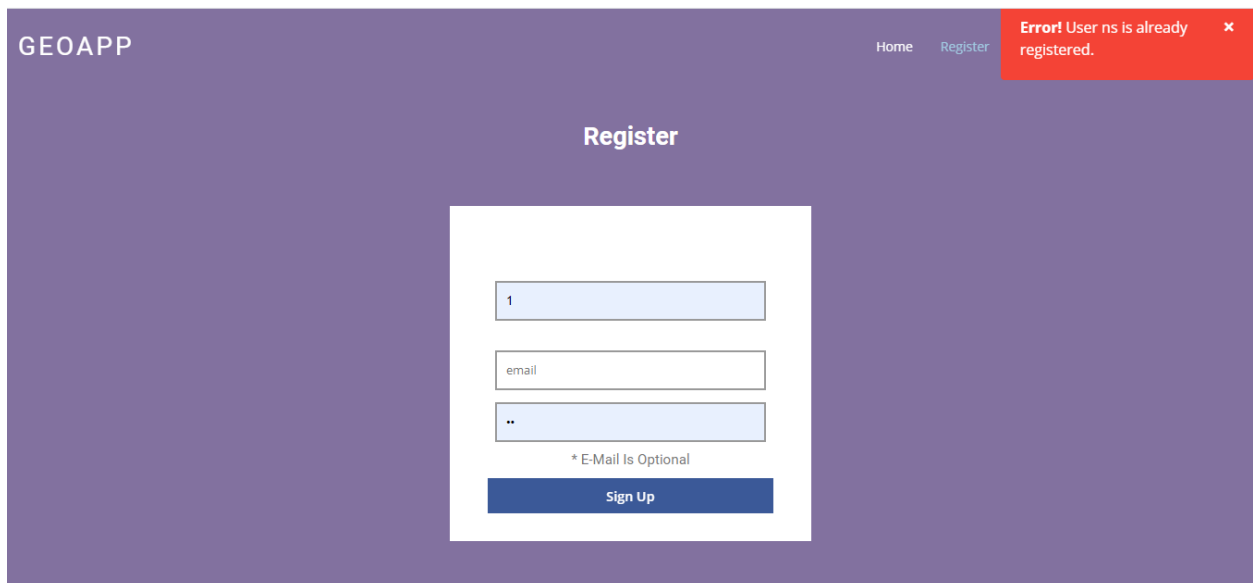




6.2 Registration:

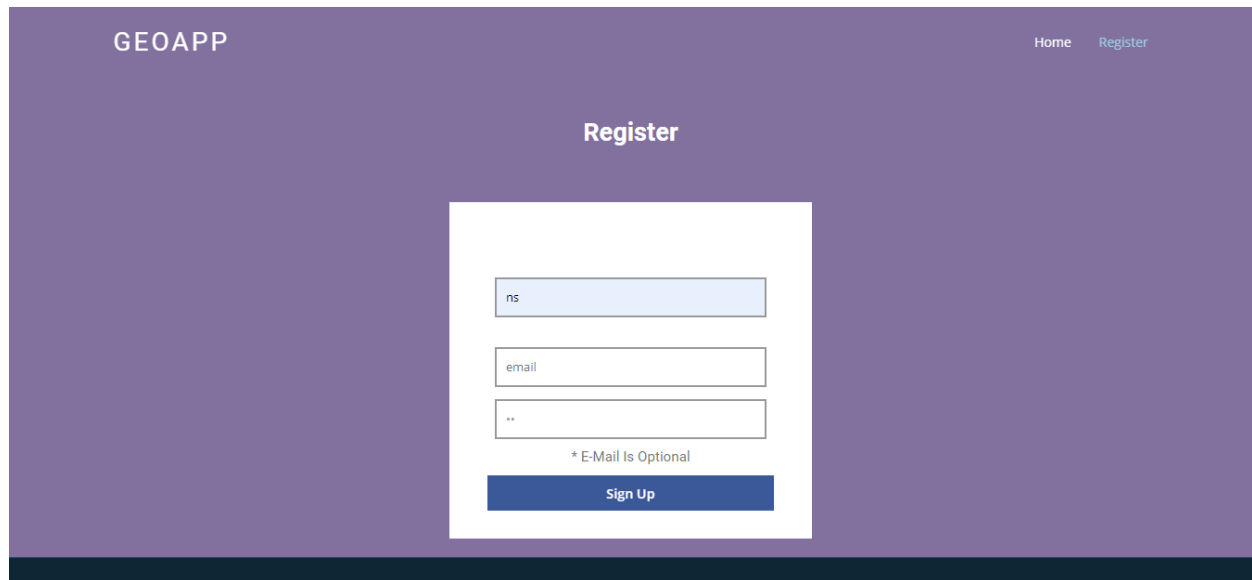
6.2.1 Username already exists:

If the new user entered a username that is in the database the software displays a message “user name is already registered”.

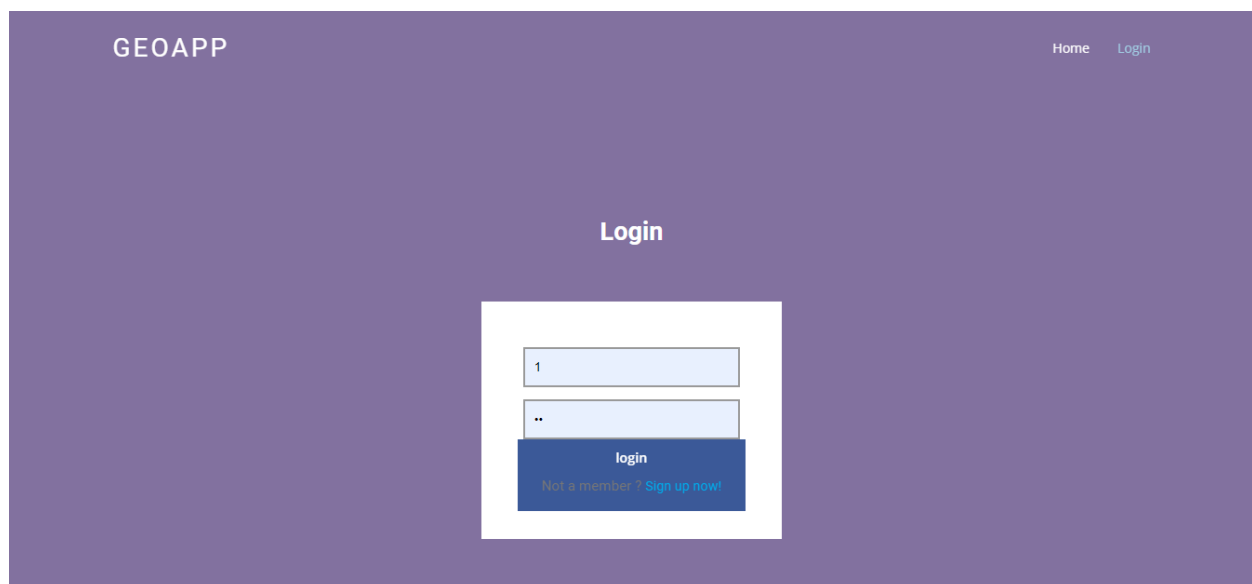


6.2.2 registration successful:

if the user enters a new username and password then the software saves the user ID and redirects the new member to the login page.



The image shows the 'Register' page of the GEOAPP. The page has a purple background. At the top left is the text 'GEOAPP'. At the top right are links for 'Home' and 'Register'. In the center, the word 'Register' is displayed in white. Below it is a white registration form with three input fields: the first contains 'ns', the second contains 'email', and the third contains '..'. Below the third field is the text '* E-Mail Is Optional'. At the bottom of the form is a blue button labeled 'Sign Up'.



The image shows the 'Login' page of the GEOAPP. The page has a purple background. At the top left is the text 'GEOAPP'. At the top right are links for 'Home' and 'Login'. In the center, the word 'Login' is displayed in white. Below it is a white login form with two input fields: the first contains '1' and the second contains '..'. Below the second field is a blue button labeled 'login'. Below the button is the text 'Not a member ? Sign up now!' in blue.

6.2.3 Empty username field:

If the user does not enter a username the software displays a message “username is required”

The screenshot shows the GEOAPP Register page. The page has a purple background. In the top left corner, the text "GEOAPP" is displayed. In the top right corner, there are links for "Home" and "Register". A red error message box in the top right corner contains the text "Error! Username is required." with a close button (X). The main content area is titled "Register" and contains a white registration form. The form has three input fields: "username", "email", and a field with two asterisks (**). Below the email field, there is a note: "* E-Mail Is Optional". At the bottom of the form is a blue "Sign Up" button. The "username" field is empty, which is why the error message is displayed.

6.2.4 Empty password field:

If the user does not enter a password the software displays a message “password is required”

The screenshot shows the GEOAPP Register page. The page has a purple background. In the top left corner, the text "GEOAPP" is displayed. In the top right corner, there are links for "Home" and "Register". A red error message box in the top right corner contains the text "Error! Password is required." with a close button (X). The main content area is titled "Register" and contains a white registration form. The form has three input fields: a field with the number "1", "email", and a field with two asterisks (**). Below the email field, there is a note: "* E-Mail Is Optional". At the bottom of the form is a blue "Sign Up" button. The password field (marked with **) is empty, which is why the error message is displayed.

6.3 Add data:

6.3.1 Empty field in (longitude, latitude, observation data, time, technician name, habitat type, water source, vegetation type, height grass cm, temperature, humidity, density grass cm, moisture content)

If the member does not enter a field of one of the data the software displays “please fill out this field”.

The screenshot shows the 'ADD DATA' form in the GEOAPP application. The form is titled 'ADD DATA' and has a navigation bar at the top with links: Home, About, Visualization, Analysis, Team, and Logout. The form contains a table with two columns: 'DATA' and 'inputs'. The 'DATA' column lists various fields: longitude, latitude, Observation_date, time, Technician Name, Habitat Type, Water Source, Vegetation Type, Height Grass_cm, Temperature, Humidity, Density Grass_cm, and Moisture content. The 'inputs' column shows the corresponding input fields. The 'latitude' field is highlighted with a red border and a red error message: 'Please fill out this field.' A 'Save' button is located at the bottom left of the form, and an upward arrow button is at the bottom right.

DATA	inputs
longitude	<input type="text"/>
latitude	<input type="text"/> Please fill out this field.
Observation_date	<input type="text"/>
time	<input type="text"/>
Technician Name	<input type="text"/>
Habitat Type	<input type="text"/>
Water Source	<input type="text"/>
Vegetation Type	<input type="text"/>
Height Grass_cm	<input type="text"/>
Temperature	<input type="text"/>
Humidity	<input type="text"/>
Density Grass_cm	<input type="text"/>
Moisture content	<input type="text"/>

Save

The screenshot shows the 'ADD DATA' form in the GEOAPP application. The form is titled 'ADD DATA' and has a navigation bar at the top with links: Home, About, Visualization, Analysis, Team, and Logout. The form contains a table with two columns: 'DATA' and 'inputs'. The 'DATA' column lists various fields: longitude, latitude, Observation_date, time, Technician Name, Habitat Type, Water Source, Vegetation Type, Height Grass_cm, Temperature, Humidity, Density Grass_cm, and Moisture content. The 'inputs' column shows the corresponding input fields. The 'Water Source' field is highlighted with a red border and a red error message: 'Please fill out this field.' A 'Save' button is located at the bottom left of the form, and an upward arrow button is at the bottom right.

DATA	inputs
longitude	124
latitude	12
Observation_date	45
time	12
Technician Name	56
Habitat Type	<input type="text"/>
Water Source	<input type="text"/> Please fill out this field.
Vegetation Type	<input type="text"/>
Height Grass_cm	<input type="text"/>
Temperature	<input type="text"/>
Humidity	<input type="text"/>
Density Grass_cm	<input type="text"/>
Moisture content	<input type="text"/>


Save


GEOAPP ADD DATA

Home About Visualization Analysis Team Logout

DATA	inputs
longitude	124
latitude	12
Observation_date	45
time	12
Technician Name	56
Habitat Type	tr
Water Source	tr
Vegetation Type	gh
Height Grass_cm	gh
Temperature	gh
Humidity	qwe
Density Grass_cm	50%
Moisture content	

Save

 Please fill out this field.



6.4 Add comment:


6.4.1 Empty field in title:

If the member does not enter a title the software displays “please fill out this field”

GEOAPP ADD DATA

Home About Visualization Analysis Team Logout

Title Comment

 Please fill out this field.

Post

Our Newsletter

Tamen quem nulla quae legam multos aute sint culpa legam noster magna

Useful Links **Our Services** **Contact Us** **About Moderna**

> Home > Web Design > Piazza Leonardo da Vinci > Cras fermentum odio eu feugiat lide per

6.4.2 Empty field in the comment body:

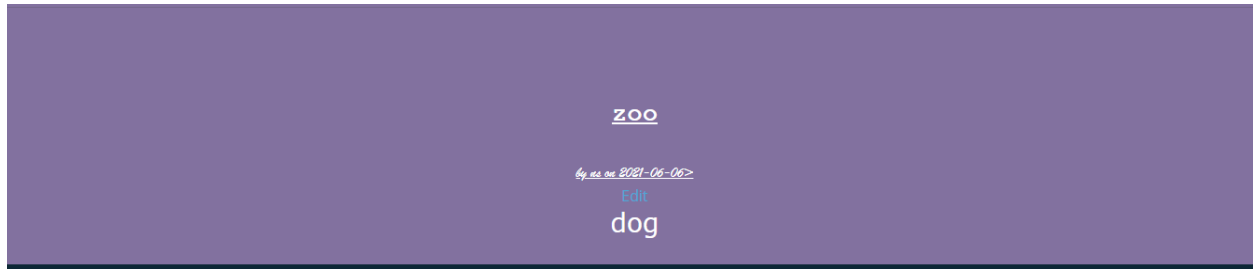
If the member does not enter a body the software displays “please fill out this field”

The screenshot shows the GEOAPP interface. At the top, there is a navigation bar with links: Home, About, Visualization, Analysis, Team, and Logout. Below this is a form for adding a comment. The form has two input fields: "Title" (containing the text "zoo") and "Comment" (which is empty). A green circular icon with a 'G' is visible next to the Comment field. Below the form is a "Post" button. A yellow error message box with an exclamation mark icon is displayed, stating "Please fill out this field." Below the form, there is a section titled "Our Newsletter" with a placeholder text "Tamen quem nulla quae legam multos aute sint culpa legam noster magna" and a "Subscribe" button. At the bottom, there is a footer with four columns: "Useful Links" (with a link to Home), "Our Services" (with a link to Web Design), "Contact Us" (with the text Piazza Leonardo da Vinci), and "About Moderna" (with the text Cras fermentum odio eu feugiat lide par).

6.4.3 Comment add successfully:

If the member enters a title and a body the software saves the comment to the database and redirects the member to comment page.

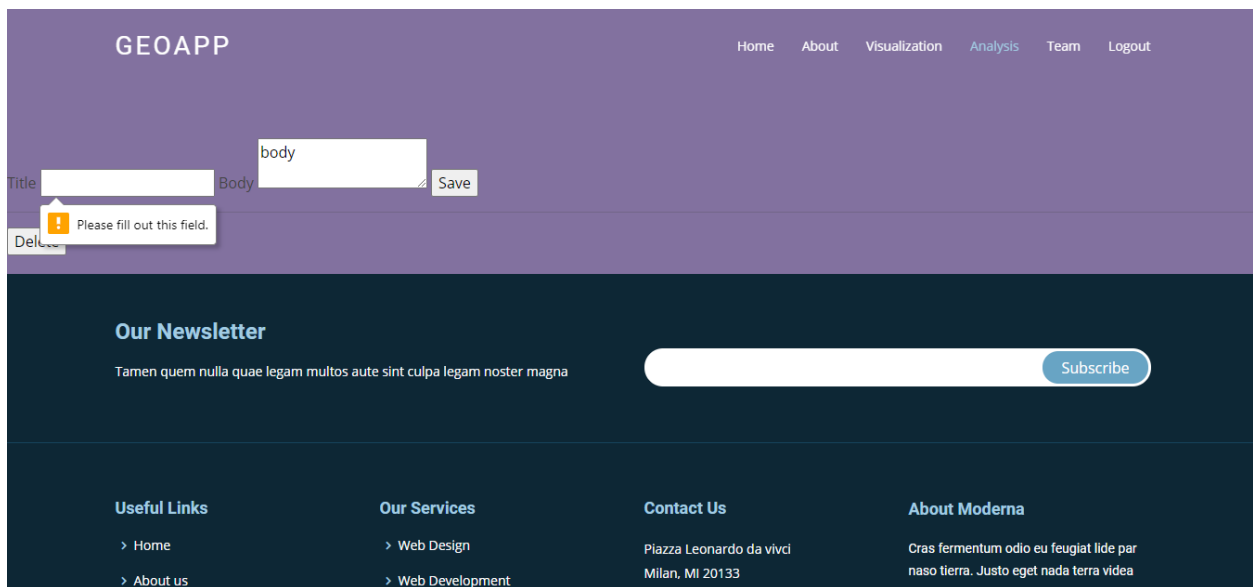
The screenshot shows the GEOAPP interface. At the top, there is a navigation bar with links: Home, About, Visualization, Analysis, Team, and Logout. Below this is a form for adding a comment. The form has two input fields: "Title" (containing the text "zoo") and "Comment" (containing the text "dog"). A green circular icon with a 'G' is visible next to the Comment field. Below the form is a "Post" button. Below the form, there is a section titled "Our Newsletter" with a placeholder text "Tamen quem nulla quae legam multos aute sint culpa legam noster magna" and a "Subscribe" button. At the bottom, there is a footer with four columns: "Useful Links" (with a link to Home), "Our Services" (with a link to Web Design), "Contact Us" (with the text Piazza Leonardo da Vinci), and "About Moderna" (with the text Cras fermentum odio eu feugiat lide par).



6.5 edit comment:

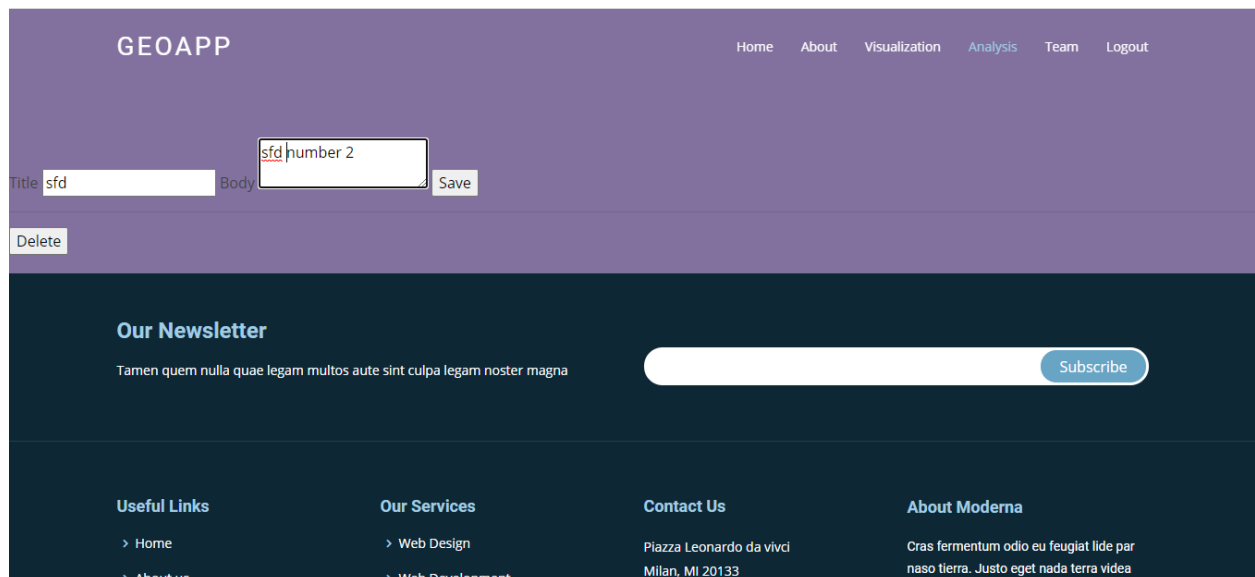
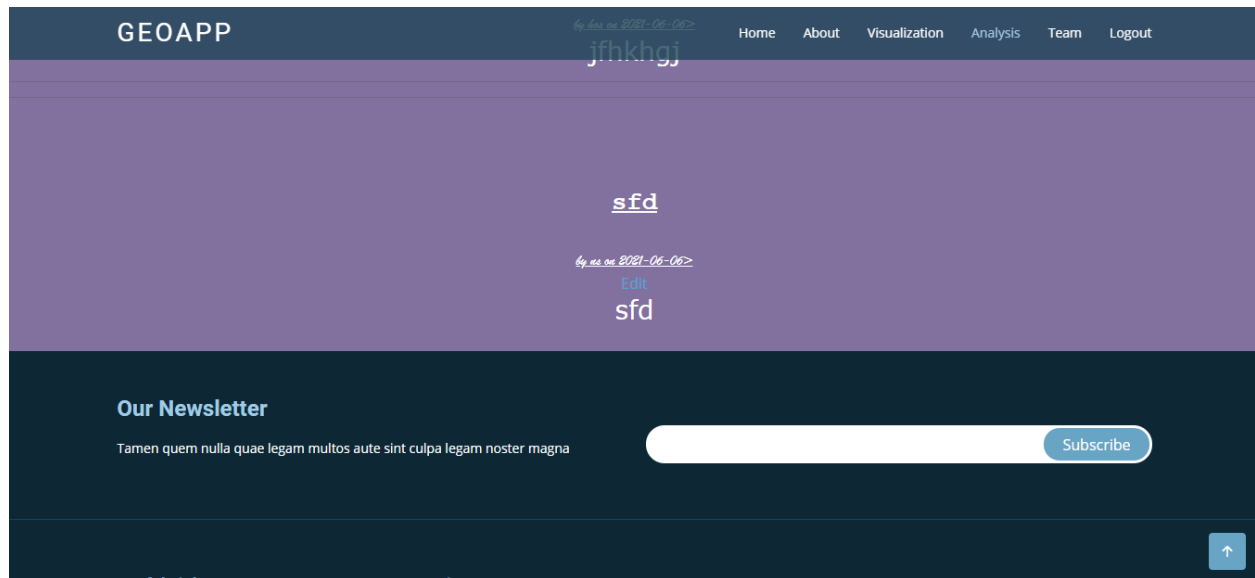
6.5.1 Empty field in title:

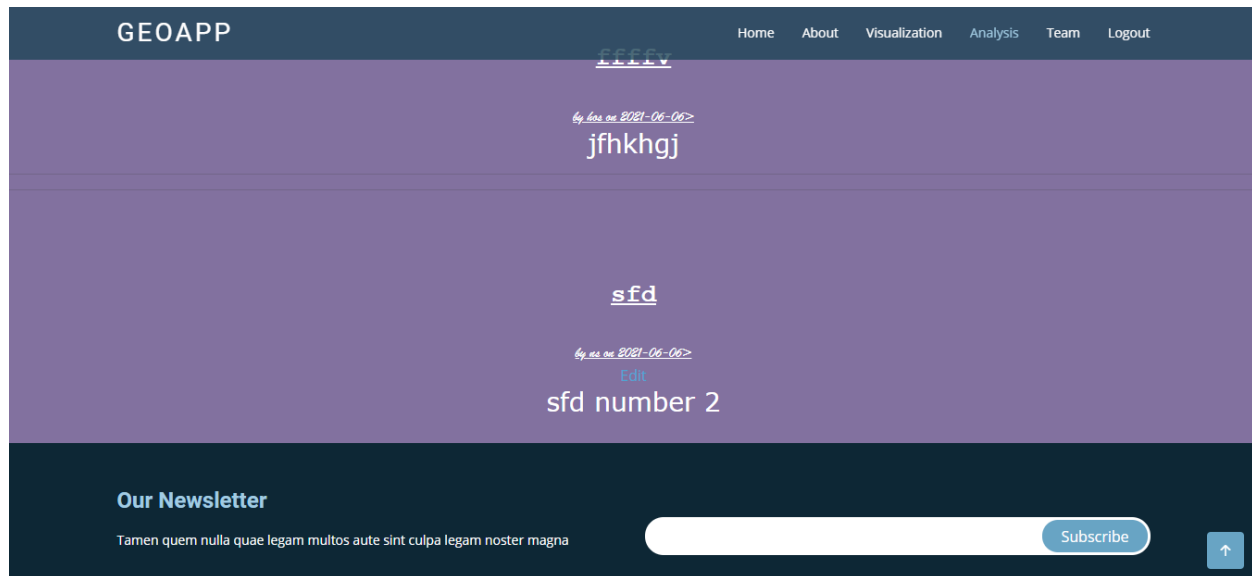
If the member does not enter a title the software displays “please fill out this field”



6.5.2 comment edited successfully:

If the member enters a title and a body the software saves the edit of the comment to the database and redirects the member to comment page.

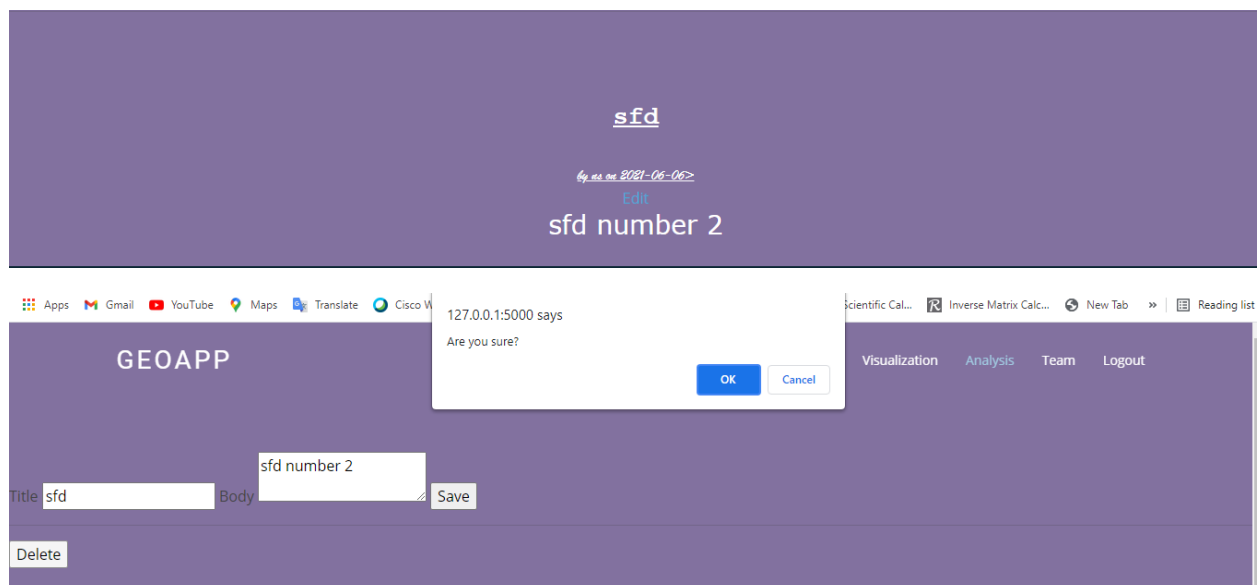




6.6 Delete comment:

6.6.1 Comment deleted successfully:

If the member pushes the delete button from the edit page the software confirms the procedure and then deletes the comment.

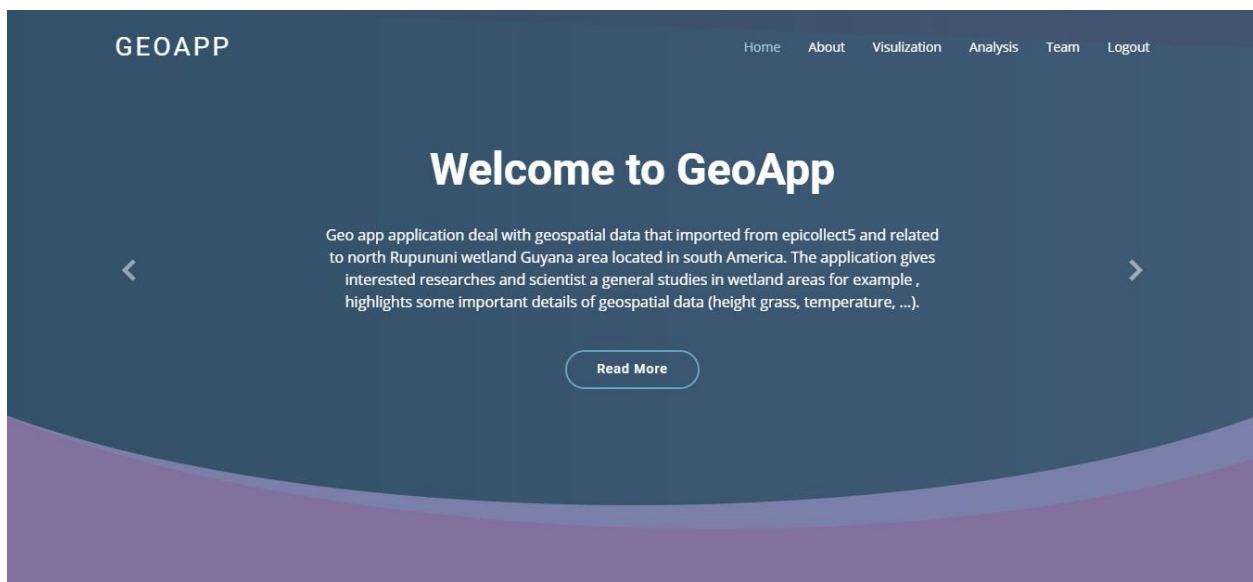


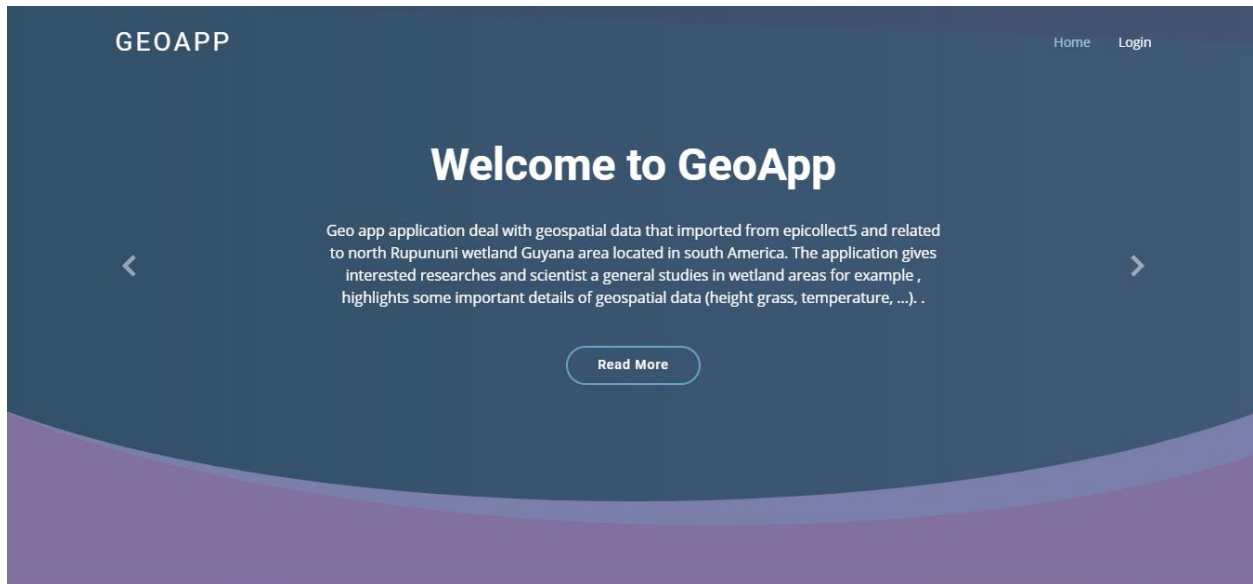
The screenshot shows a login form on a purple background. At the top left is the text 'GEOAPP'. At the top right is a navigation menu with links: 'Home', 'About', 'Visualization', 'Analysis', 'Team', and 'Logout'. The 'Analysis' link is highlighted in blue. Below the navigation menu is a white rectangular box for the password. Below the password box is a 'Post' button. To the left of the password box are labels for 'Title' and 'Comment' next to input fields.

6.7 logout:

6.7.1 Logout done successfully:

If the member pushes the logout button the software closes the session of the member and redirects the member to the home page.





7 Type of testing performed:

This test was preformed using a manual method of the unit testing approach.

8 Testing tools:

Application URL	Application server	Database
http://127.0.0.1:5000/	WSGI	PostgreSQL

9 Test plan result:

Test case		Result
Login		
	Incorrect username	Success
	Incorrect password	Success
	Correct username and password	Success
Registration		
	Username already exists	Success
	Registration successful	Success
	Empty username field	Success
	Empty password field	Success
Add data		
	Empty field	Success
Add comment		
	Empty field in title	Success
	Empty field in the comment body	Success
	Comment add successfully	Success
Edit comment		
	Empty field in title	Success
	Comment edited successfully	Success
Delete comment		
	Comment deleted successfully	Success
Logout		
	Logout done successfully	Success

10Effort:

Ali B. Mohmmmed	2 hours
Hussamalden M.Shereif	2 hours
Mazin A. Saeed	2 hours
Nizar O. Fadl Elseed	2 hours
Nshwan A. Khairalla	2 hours