Evaluation Assignment # 6

Usability Test Report for Programming Staff

http://cshci-dev.mtu.edu:8084/

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Programming Staff – Development Team

http://www.csl.mtu.edu/classes/cs4760/www/projects/s16/group4/www/

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1. INTRODUCTION

1.1 UI Description

Staff Gauge application forms a citizen scientist network which allows its users to upload the hydrology data about wetland and water stream from sites places on trails, in parks, and along rivers around the world. Basically our application has a HTML based form to collect the data from users which is compatible on mobile and web browsers. The data to be uploaded can be either text or picture which is stored in database(Tomcat) server in compliance with ODM schema typical to hydrology data storage. The users can not only have the access to data which they have uploaded but can have access to the data uploaded by other users. The primary focus of this application is to provide easier method for the users to upload the information. To perform such tasks the design of application should be easy, clear, efficient and user friendly.

1.2 Test Goals

There are many goals for the usability testing depending on the module and the application to be tested. For this application as the most important specification is the easy and user friendly I have developed the tests to check if the application is easy for the first time users. We also intended to find if they could complete the assigned task with out concerning the UX expert. Later we asked the participants for their feedback and their suggestions on each module they have been tested. The other goal of the test is to check the main functionality of the application I.e it is to check if the application is working as required or does it have any concerns. We also wanted to check if there are any bugs while performing any operation in the application which are ignored while developing the application.

1.3 Tests Description

Usability tests are conducted by the UX expert with some assistance from the development team members. Participants are CS2321, CS3425 and CS5760 students. When they arrived at the test session and after greeting, they read and signed the consent form and answered the pretest questionnaire. Then they had a small info session about the Staff Gauge application and then the test scenarios to follow and perform the required tasks. After finishing the test scenarios, they filled the post-test questionnaire and gave us some feedbacks.

2. USABILITY TEST PLAN

2.1 Test Scenarios

There are three test scenarios developed based on the modules of the application which generally makes up to the whole functionality check of the application. The first scenario is to work on your user profile I.e to create an account and retrieve it if some login credentials are lost. The second scenario describes the user to enter the information manually using the staff gauge number and the measurement. The last scenario asks the participant to enter the data by using a picture either from their gallery or by clicking it.

2.2 Pretest Questionnaire

1. How many years have you used a smart phone?

2. What are your expectations to a website that gathers information?

3. What facilities would you expect to find?

4. Please indicate your level of agreement to the follow statement:

   I am very interest in the testing of this android application.

   - Strongly agree
   - Agree
   - Neutral
   - Disagree
   - Strongly disagree

2.3 Scenario 1

Test Scenario Name : Account Registration

Test Goals for the scenario:

The goal of this scenario is to reference the average time per participant in creating and restoring their account if they forget the login credentials.

Quantitative Measurement list:

Timer will be used to get the speed of creating and restoring an account.

Scenario Description:

This is read to the participant

" *In this test we are going to test the speed and efficiency in creating an user account. I'll start the timer and say Go then you assume that this is your first time using this application so you need to create an account. Then I'll stop the timer after you are done creating your account. Now you assume that you already have an account and you couldn't remember the login credentials so you need to restore your account.*"

Task List:

Users are expected to perform

- Press 'Login/sign up'
- Enter email address
- Enter User name
- Enter Password
- Confirm Password
- Press 'Sign Up'

Users are expected to perform

- Press 'Login/sign up'

- Press ' Forgot User name'

- Enter email address

- Press ' Send Remainder Email'

Qualitative Measurement List:

Can figure out if the correct user name or password are sent to the given email address.

Post Scenario Interview Questions:

a) What feature of the application frustrated you the most?

b) What feature of the application did you like the best?

c) Were all the functions/buttons easy to find? Please provide details about the functions/buttons you did AND did not like. At least one of each.

d) Did you intuitively understand what each function did? Please provide details about the functions/buttons you did AND did not understand. At least one of each.

e) Is there any thing missing

f) Is there any thing you think should be presented differently

2.4 Scenario 2

Test Scenario Name : Manual Entry Of Data

Test Goals for the scenario:

The goal of this scenario is to reference the average time per participant for the manual entry of data and to check if this task can be performed with ease.

Quantitative Measurement list:

Timer will be used to get the speed of entering data manually.

Scenario Description:

This is read to the participant

" *In this test we are going to test the speed and efficiency in entering data manually. I'll start the timer and say Go then you assume that you are on the shore of lake Superior and you came across a Staff Gauge you thought of uploading the data but you have some problem with your camera so you need to enter the data manually. Then I'll stop the timer when you are done entering the data manually.*"

Task List:

Users are expected to perform

- Press 'Login/sign up'
- Enter email address
- Enter Password
- Press 'Login'
- Enter the measurement of water shown on staff gauge in centimeters
- Enter the Staff Gauge number present on it
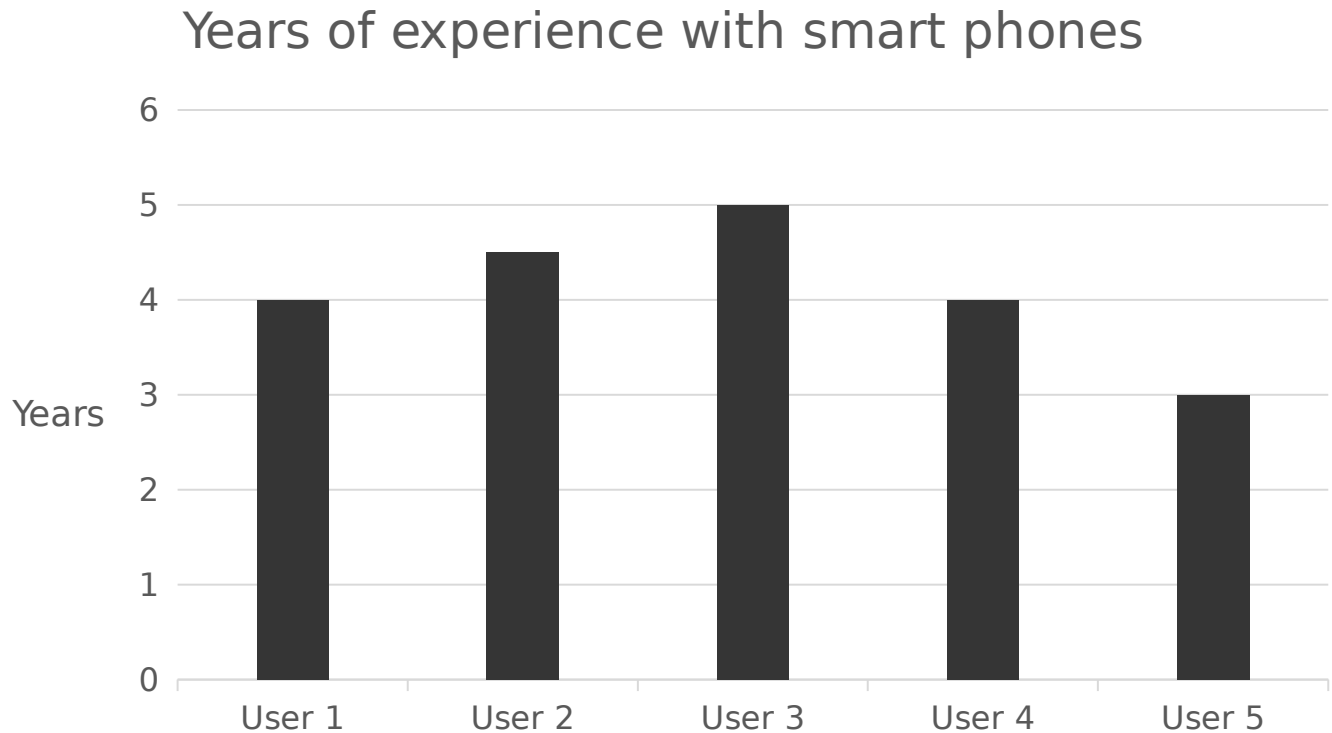- Press ' Submit'

Qualitative Measurement List:

Can figure out if the user is able to perform the task with out any errors for the first time and to find if they encounter any problems.

Post Scenario Interview Questions:

a) What feature of the application frustrated you the most?

b) What feature of the application did you like the best?

c) Were all the functions/buttons easy to find? Please provide details about the functions/buttons you did AND did not like. At least one of each.

d) Did you intuitively understand what each function did? Please provide details about the functions/buttons you did AND did not understand. At least one of each.

e) Is there any thing missing

f) Is there any thing you think should be presented differently

2.5 Scenario 3

Test Scenario Name : Entering data by clicking the picture

Test Goals for the scenario:

The goal of this scenario is to reference the average time per participant for the entry of data by clicking the picture or by selecting it from gallery and to check if this task can be performed with ease.

Quantitative Measurement list:

Timer will be used to get the speed of entering data using a picture.

Scenario Description:

This is read to the participant

" *In this test we are going to test the speed and efficiency in entering data by clicking a picture. I'll start the timer and say Go then you assume that you are on the shore of lake Superior and you came across a Staff Gauge you thought of uploading the data. You need to upload the data by using a picture either from gallery or by clicking it.*

Then I'll stop the timer when you are done entering the data manually."

Task List:

Users are expected to perform

- Press 'Login/sign up'

- Enter email address

- Enter Password

- Press 'Login'

- Press 'Use/Take Picture'

- Choose gallery or camera

- Select a picture from the gallery or click it

- Press 'Use Picture'

Qualitative Measurement List:

Can figure out if the user is able to perform the task with out any errors for the first time and to find if they encounter any problems.
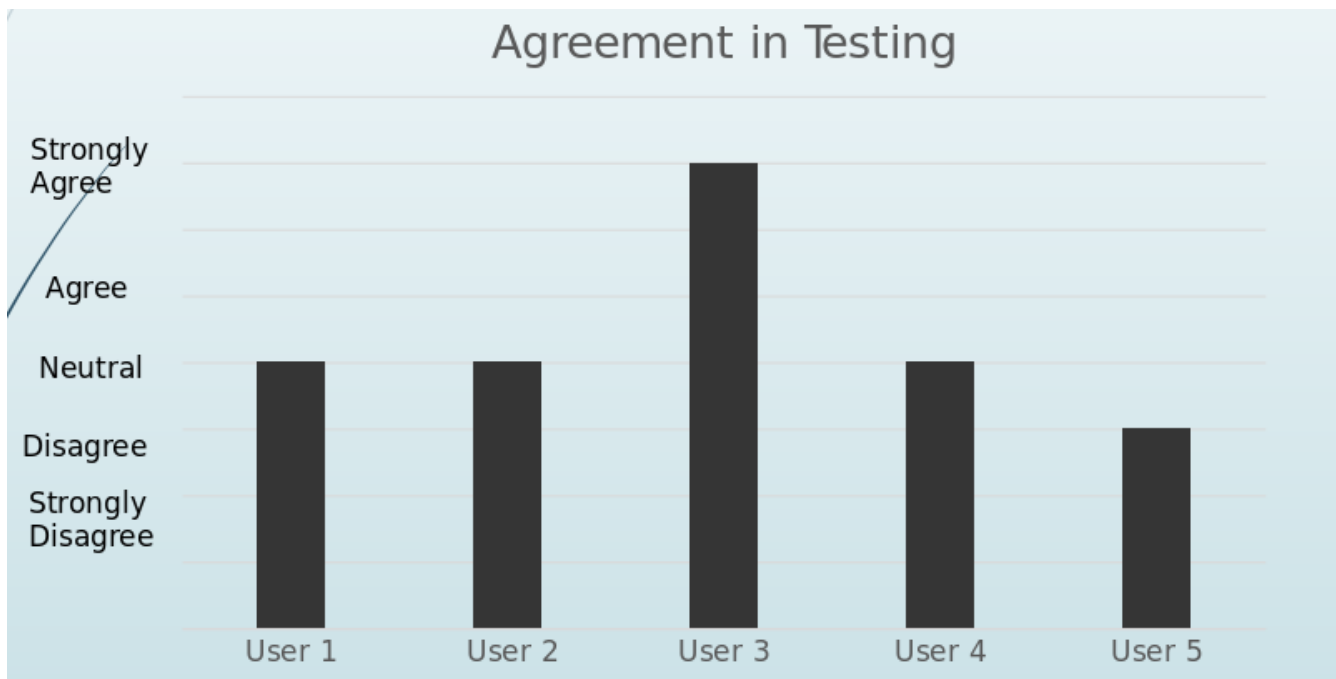
Post Scenario Interview Questions:

a) What feature of the application frustrated you the most?

b) What feature of the application did you like the best?

c) Were all the functions/buttons easy to find? Please provide details about the functions/buttons you did AND did not like. At least one of each.

d) Did you intuitively understand what each function did? Please provide details about the functions/buttons you did AND did not understand. At least one of each.

e) Is there any thing missing

f) Is there any thing you think should be presented differently

3. Results

3.1 Pretest Questionnaire Results

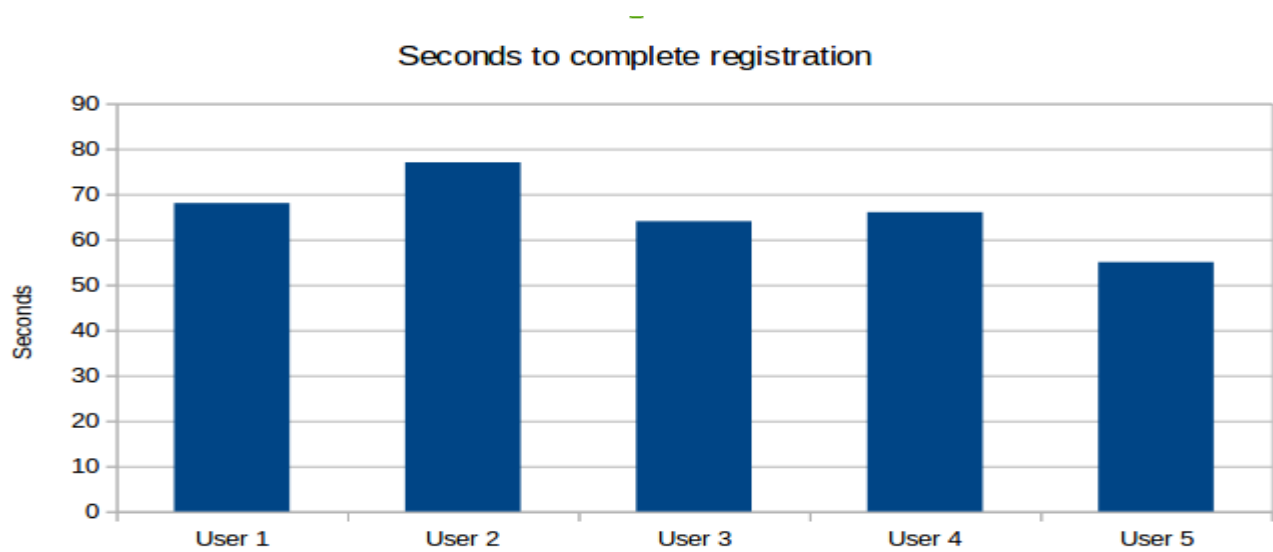### Years of experience with smart phones

All the participants have an experience of 3 – 5 years using the smart phones which isn't the ideal case in the real world use of the application.
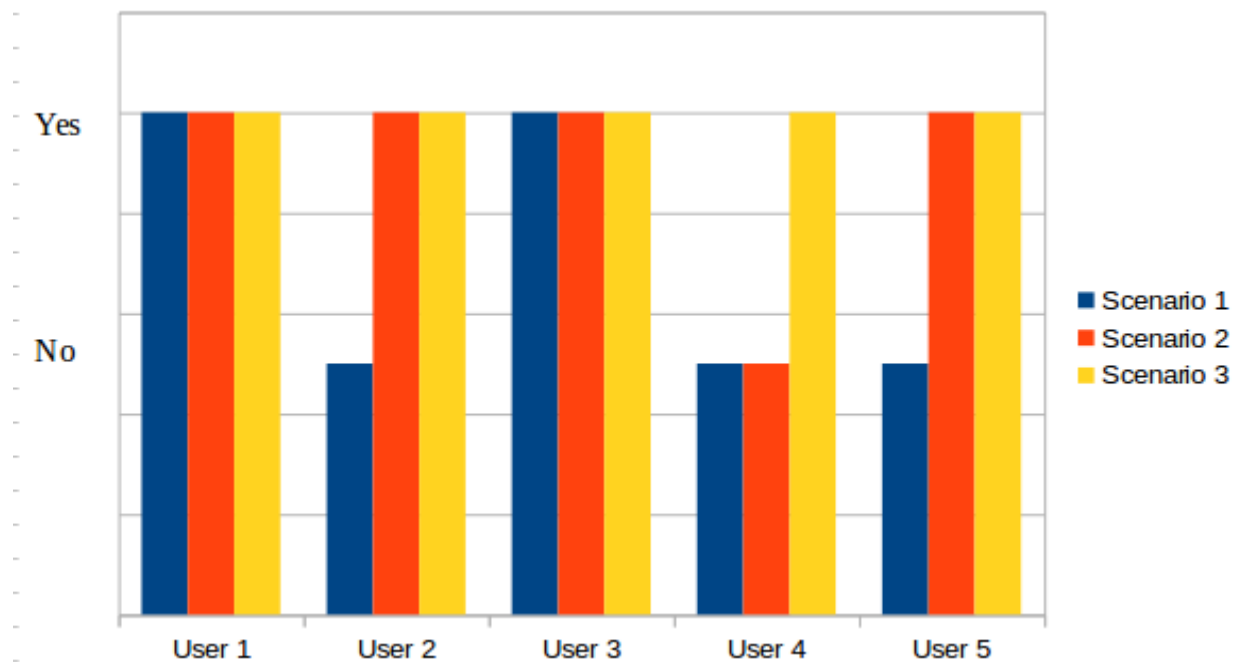
Agreement in Testing

Three users have been neutral in testing the application and one with strong agreement. But there is one user who isn't interested in testing.

All the users felt that this type of application which gathers information would be simple and straight forward with out any complex and confusing patterns.
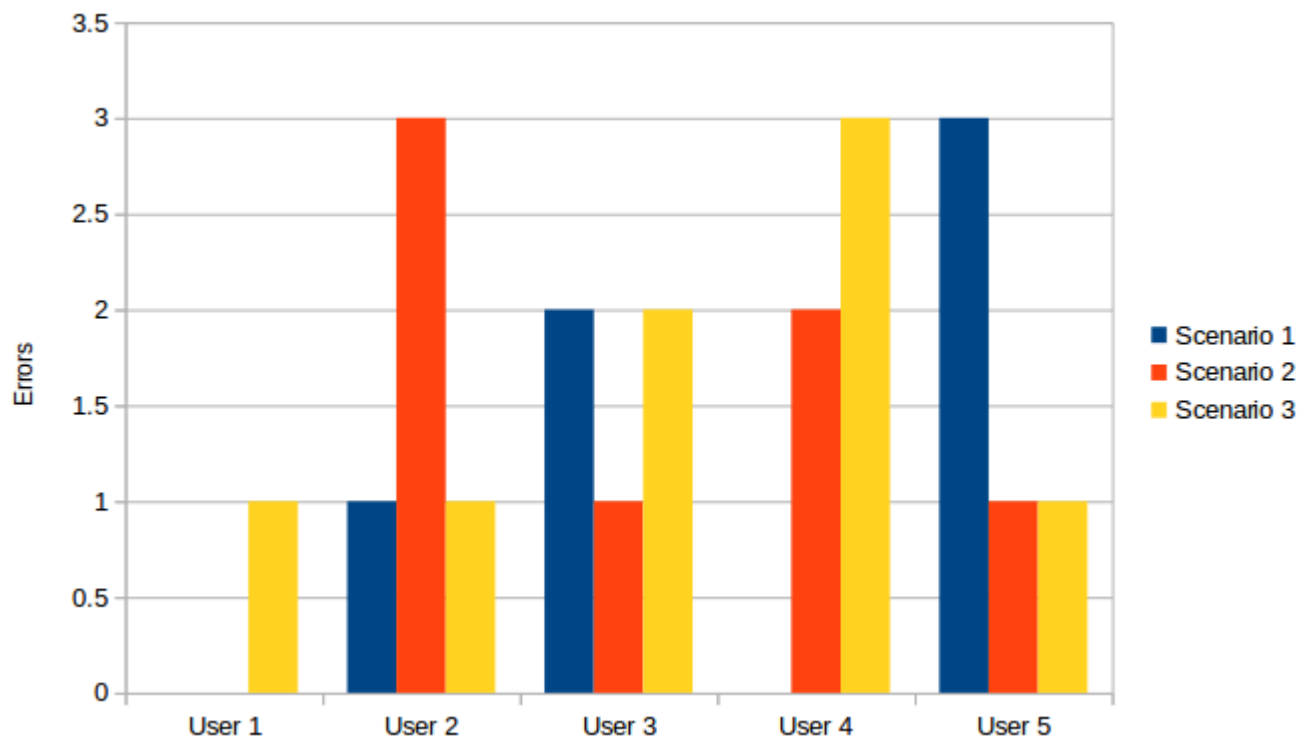
3.2 Quantitative Results

Seconds to complete registration

The average time taken to complete the registration process is around 66 seconds.

Number of users to complete the task with out any help or mistakes.

This gives the number errors made by users in different scenarios.
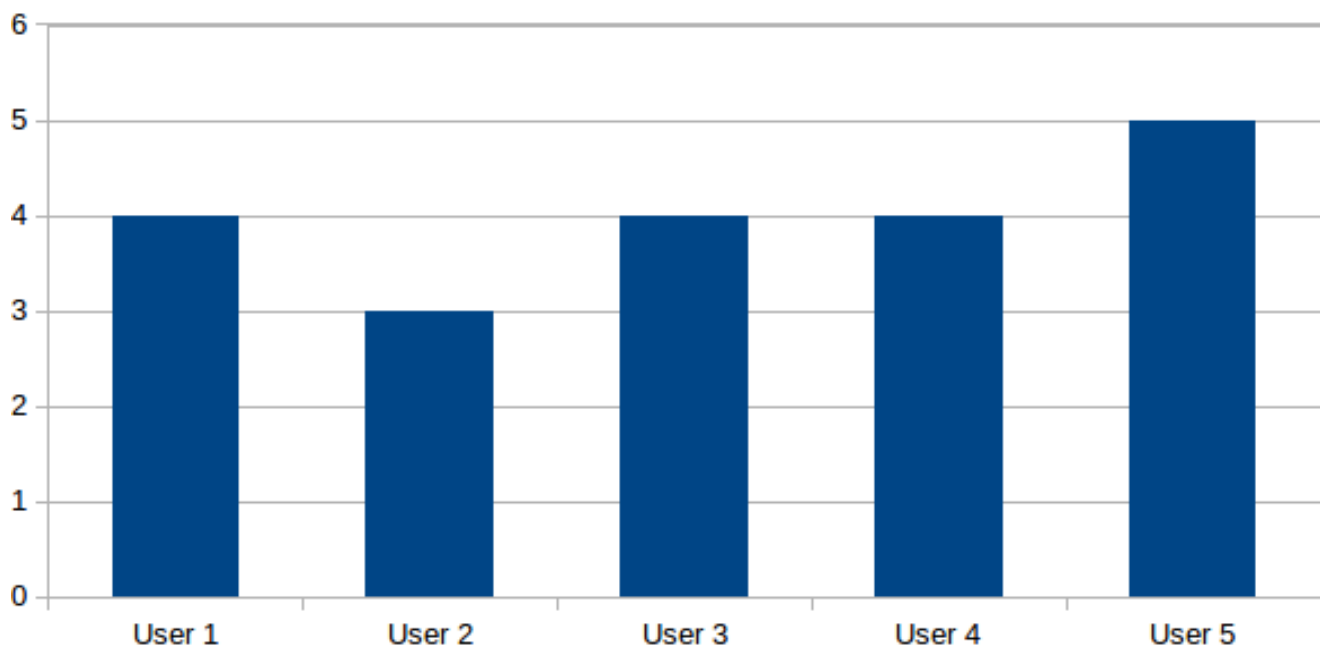
3.3 Qualitative Results

User	User's concerns and errors
1	**Scenario 1** The user could complete the scenario but he had the problem with the text fields such as user name and password as they were too small. He couldn't figure out if he has entered the correct input or not. He also had an issue with the minimum requirement of the password. **Scenario 2** The user could complete the scenario but the had the same problem as in scenario1 I.e he couldn't figure out if he has entered the correct input or not. **Scenario 3** User could complete the scenario but he had an issue with the image preview and the retake button of the picture module.
2	**Scenario 1** The user couldn't complete the scenario and had the problem with the text fields such as user name and password as they were too small. He couldn't figure out if he has entered the correct input or not. He also had an issue with the minimum requirement of the password He also felt that it would be hard to get back to the login page if he accidentally navigates to the sign up page as it doesn't have a back button

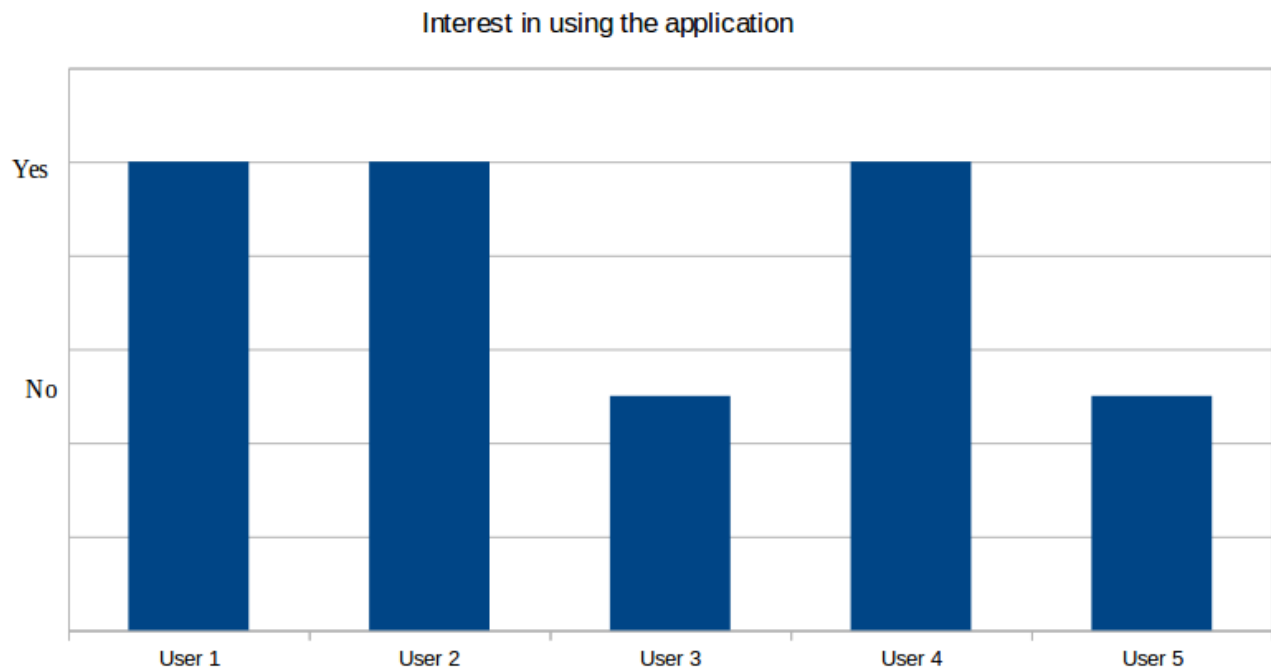|	
	Scenario 2 The user could complete the scenario but the had the same problem as in scenario1 I.e he couldn't figure out if he has entered the correct input or not. **Scenario 3** User could complete the scenario but he had an issue with the image preview and the retake button of the picture module.
3	**Scenario 1** The user couldn't complete the scenario and had the problem with the text fields such as user name and password as they were too small. He couldn't figure out if he has entered the correct input or not. He also had an issue with the minimum requirement of the password He also felt that it would be hard to get back to the login page if he accidentally navigates to the sign up page as it doesn't have a back button **Scenario 2** The user could complete the scenario but the had the same problem as in scenario1 I.e he couldn't figure out if he has entered the correct input or not. He was confused by the appearance of the submit button twice once after entering data and second when graph is shown. **Scenario 3** User could complete the scenario but he had an issue with the image preview and the retake button of the picture module.

4	**Scenario 1**
	The user couldn't complete the scenario and had the problem with the text fields such as user name and password as they were too small. He couldn't figure out if he has entered the correct input or not.
	He also had an issue with the minimum requirement of the password
	He also felt that it would be hard to get back to the login page if he accidentally navigates to the sign up page as it doesn't have a back button
	Scenario 2
	The user couldn't complete the scenario and had the same problem as in scenario1 I.e he couldn't figure out if he has entered the correct input or not.
	Scenario 3
	User could complete the scenario but he had an issue with the image preview and the retake button of the picture module.
5	**Scenario 1**
	The user couldn't complete the scenario and had the problem with the text fields such as user name and password as they were too small. He couldn't figure out if he has entered the correct input or not.
	He also had an issue with the minimum requirement of the password
	He also felt that it would be hard to get back to the login page if he accidentally navigates to the sign up page as it doesn't have a back button

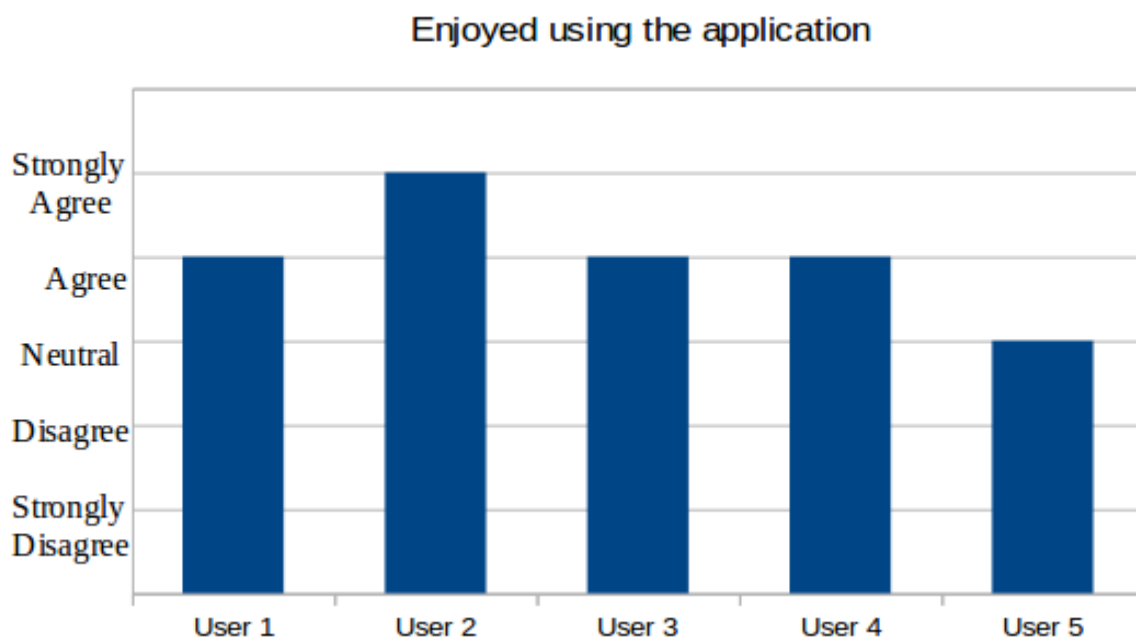|	
	Scenario 2 The user could complete the scenario but the had the same problem as in scenario1 I.e he couldn't figure out if he has entered the correct input or not. He was confused by the appearance of the submit button twice once after entering data and second when graph is shown. **Scenario 3** User could complete the scenario but he had an issue with the image preview and the retake button of the picture module. He was confused by the appearance of the submit button twice once after entering data and second when graph is shown.

3.4 Post-test Questionnaire Results

All the users rated the easiness of application on a scale of 5. Except for one every one felt the application was easy.
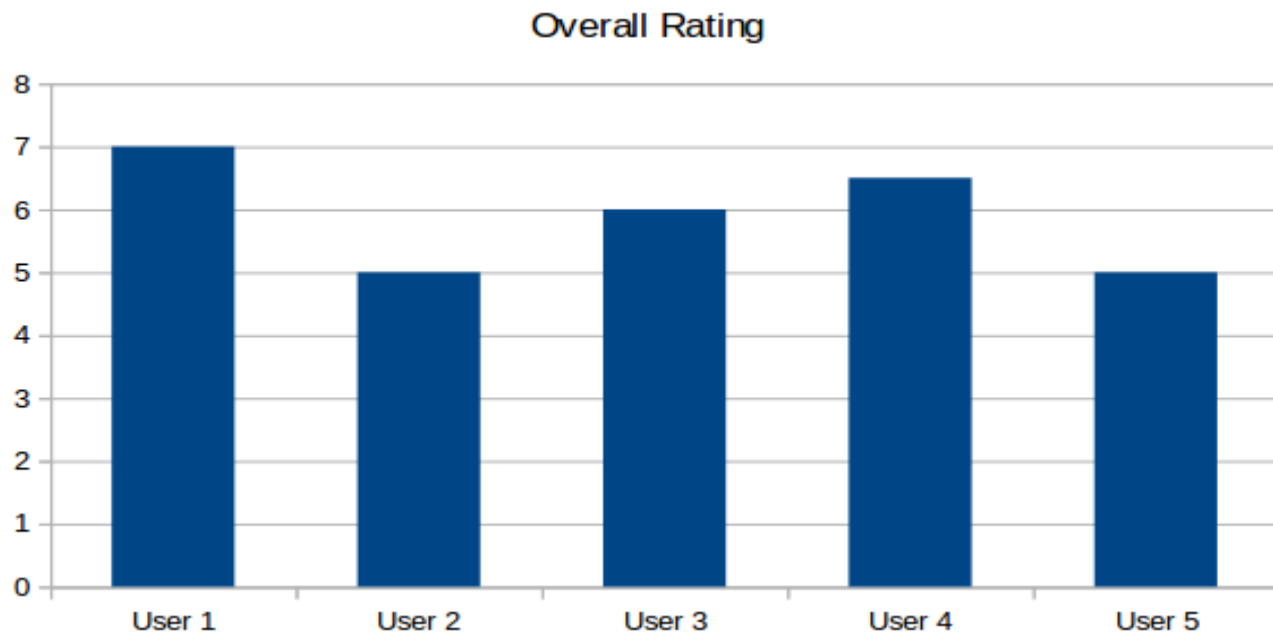
Interest in using the application

Two out of five participants showed no interest in using the application in future.

All the users felt the application is same as what they expected before the test.

All the users felt that the application was simple and straight forward except for one.

Enjoyed using the application

All the users enjoyed using the application except for one, which is actually good.

Overall Rating

For the overall rating of the application the highest was 7 by a user and the lowest being 5 given by two users. The average overall rating of the application was just below 6.

4. CONCLUSIONS

1. In the home page we can use separate buttons for 'sign up' and 'login' as users were confused with the buttons and they started entering sign up credentials in the login page.

2. Adjust the size of text boxes when entering data as the users couldn't figure out whether they are entering the correct data or not.

3. Add a back button in the sign up page to get back to home page if a user ends up in sign up page accidentally.

4. No need of the 'view graph' button in the home page as users directly navigate to the graph when they enter the data.

5. When 'retake image' button is pressed make sure that the page navigates to the camera option rather than going back to the home page.

6. Change the button to 'continue' rather than submit after entering data or taking a picture as it navigates to graph page where it has the submit button again.

7. Make sure that the image preview is available.

8. A notification or a message which gives the minimum requirement of password can be placed against the password field to prevent the users from entering it uncorrectly.

5. APPENDIX A

Under Grad Team Attendance

Team Member's Name	Number of Attended Sessions
Nikita Koshcheyev	3
Ryan Doyle	3
Zack Duford	2
Nathan Tong	2
Kyle Petermann	3
Jacob Timmer	3

6. APPENDIX B

Bug Report

Bug Number	Bug Name	Bug Location	Bug Description
1	Email Verification	Login Page	Couldn't verify an email at the time of registration.
2	Image Preview	Submission Page	No image preview after clicking a picture.
3	Profile Information	Profile Page	There is no tracking information on an account.