

Questions

Responses 15

Section 1 of 11

## MSc Project Web Application - User Evaluation

Thank you for participating in this user evaluation. To continue you must be over the age of 16 and be involved in higher education.

My name is Gareth Sears and I am conducting this evaluation as part of my MSc project in the field of computer science education at the University of Glasgow. The survey you complete will be used to evaluate a software product. User testing is an important part in ensuring the final software product fulfils its requirements.

The software's purpose is to provide a platform to assist instructors in quickly providing support to computer science students. The platform administers surveys to students regarding their emotional response to a course's labs. The responses are then processed and displayed in the platform's dashboard pages.

\*\*\*\*

Future versions of this application may be integrated as part of computer science courses at the University of Glasgow. Any feedback you provide will have a direct impact on the success of this project.

\*\*\*\*

The web application features a student-facing interface and an instructor-facing interface. As a student you can respond to lab surveys, view how your responses have been analysed, view if you have been flagged for extra support and request support for a particular course. As an instructor, you can view students who have been flagged as needing support, configure the automatic flagging parameters, view summaries of lab responses and of an individual student's responses. Both types of user can log in and view course information, such as instructors and lab times, and are restricted to information which applies to them. For example, they can only view information relating to courses which they participate in, and students cannot view other students' responses.

This evaluation consists of a series of tasks to complete which are followed by a short survey. The complete evaluation should take up to 20 minutes.

Any data you provide are anonymous and confidential. Please do not include any personal data which could be used to identify you. Your data will not be used outside of this project. Please remember that it is the proposed software, not you, that is being evaluated.

This evaluation uses data which has been randomly generated and is completely artificial. This includes usernames, emails and course information. Please do not attempt to use such data outside of this evaluation.

By completing this evaluation, you are giving consent for your data to be used. If you have any questions or concerns, please contact me at 2493194s@student.gla.ac.uk, or contact my supervisor at mirella.bikangaada@glasgow.ac.uk.

### Consent declaration

I understand the above and I consent.

\*

I am... \*

An instructor

A student

After section 1 Continue to next section

Section 2 of 11

## Instructor - Demographics

Description (optional)

Please describe your background. \*

A computer science lecturer

A computer science tutor

Other...

Where do you instruct? \*



University of Glasgow

Other...

After section 2 Continue to next section

Section 3 of 11

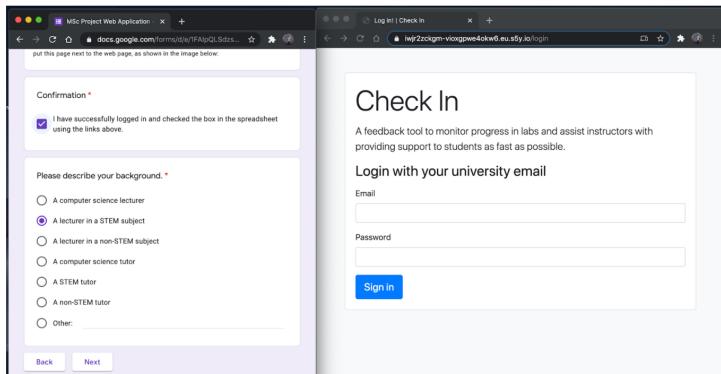
## Instructor - Accessing the web application

During this survey you will be required to use the software to complete several tasks. These tasks represent common use cases for instructors. To do this, you must access the web application and log in.

Open the software using the link below. Then return to this survey.

<https://qlitmnms3a-vioxgpwe4okw6.eu.s5y.io/>

For convenience, it is recommended that you arrange this survey's window next to the web application once you have opened it, as shown in the image below.



Check the box below to confirm that you have successfully opened the web application window \* and are ready to log in.

I have opened the application and am ready to log in.

After section 3 Continue to next section

Section 4 of 11

## Instructor - Getting evaluation login credentials

To login, you are required to use test account credentials. Please read all instructions before continuing.

You will need to copy a test login email from a spreadsheet (the link is provided after these instructions). Do NOT copy credentials from cells blanked out in red.

	A	B	C
1	<b>Copy one of the unused login emails below.</b>		
2	When you have finished, please check the box.		
3			
4	Login Email	Password	Login successful?
5			<input checked="" type="checkbox"/>
6	example@glasgow.ac.uk	password	<input type="checkbox"/>
7			<input checked="" type="checkbox"/>
8			<input checked="" type="checkbox"/>
9			<input checked="" type="checkbox"/>
10			<input checked="" type="checkbox"/>

Log in to the application using the email and the password 'password'.

# Check In

A feedback tool to monitor progress in labs and assist instructors with

## Login with your university email

Email

example@glasgow.ac.uk

Password

\*\*\*\*\*

**Sign in**

Tr

□

▶

□

Confirm you have successfully logged in on the spreadsheet by ticking the 'Login successful?' box next to the username you chose. Note that this will blank out the credentials to prevent other users from using this account. Return to the survey.

	A	B	C
1	<b>Copy one of the unused login emails below.</b>		
2	When you have finished, please check the box.		
3			
4	Login Email	Password	Login succesful?
5			<input checked="" type="checkbox"/>
6			<input checked="" type="checkbox"/>
7			<input checked="" type="checkbox"/>
8			<input checked="" type="checkbox"/>
9			<input checked="" type="checkbox"/>
10			<input checked="" type="checkbox"/>

Tr

□

▶

□

Open the login spreadsheet using the link below. Follow the instructions given above then return to this survey.

<https://docs.google.com/spreadsheets/d/1vq3RZCujCnPS0MPo0O19zyAy3gFojIPGEbNDXLQs4cQ/edit?usp=sharing>

Check the box below to confirm that you have successfully logged in and are ready to begin the \* tasks.

I have successfully logged in and am ready to begin the tasks.

After section 4 Continue to next section

Tr

□

▶

□

Section 5 of 11

## Instructor - Tasks

In this first section, you will be asked to complete a series of tasks in the application. Each task will be a scenario. Please indicate if you completed, partially completed or did not complete each one.

You have logged in to the application for the first time. You want a detailed explanation of the \* features on the home screen. Open the page's documentation.

Completed

Partially completed

Unable to complete

Tr



You want to see a list of all the students who are enrolled in one of your courses (choose any course). Navigate to a summary page for that course and view the complete list of students. \*

- Completed
- Partially completed
- Unable to complete

Tr



Each course has a number of labs. These are 'hands on' sessions which put lecture material into practice. Students complete a survey giving feedback on the lab when they have finished its tasks. Choose a lab and view a summary of the student responses for that lab. Identify which student found the lab the most challenging. \*

- Completed
- Partially completed
- Unable to complete

Tr



You feel that the lab material should be familiar to most students. Any students who find it unfamiliar are at risk of struggling in the up and coming assignments. Change the 'danger zones' for a lab survey so that any students who find the lab material unfamiliar are given a higher risk factor. \*

- Completed
- Partially completed
- Unable to complete

Tr



A student has approached you and has told you they are facing difficulties. Manually flag a student as needing extra support in your course, giving a reason why. \*

- Completed
- Partially completed
- Unable to complete

You wish to change the configuration for automatically flagging students needing support. Adjust the risk threshold of a course and the number of consecutive labs required to automatically flag a student. Alter the values until you see updated information. \*

- Completed
- Partially completed

Unable to complete

Return the configuration you changed above to 70% for 2 consecutive labs. \*

Completed

Partially completed

Unable to complete

Tr



You are satisfied with the progress that a previously flagged student is making. Remove the support flag from any student (you may wish to choose the student you manually flagged earlier). \*

Completed

Partially completed

Unable to complete

You would like to review a student's journal entries in which they have expressed dissatisfaction \* with the course. View a student summary for any course and review that student's negative journal responses.

Completed

Partially completed

Unable to complete

Tr



Log out of the application and close its window. Return to this survey. \*

Completed

Partially completed

Unable to complete

After section 5 Continue to next section

Section 6 of 11

## Instructor - Evaluation Survey

⋮

Now you have finished specific tasks, we would like you to evaluate your overall experience with the software.

To clarify, the following questions do NOT relate to the previous individual tasks, rather they concern your general experience and impressions of the product.

Tr



### Software Evaluation

The first section consists of 26 pairs of contrasting attributes that may apply to the software. The circles between the attributes represent gradations between the opposites. You can express your agreement with the attributes by selecting the circle that most closely reflects your impression.

Please decide spontaneously. Don't think too long about your decision to make sure that you convey your original impression. Sometimes you may not be completely sure about your agreement with a particular attribute or you may find that the attribute does not apply completely to the software. Nevertheless, please click a circle in every line.

It is your personal opinion that counts. Please remember: there is no wrong or right answer!

This is an example response.

Example:

attractive        unattractive

This response would mean that you rate the application as more attractive than unattractive.

Q1 \*



Tr



Q2 \*



Tr



Q3 \*



Q4 \*



Tr



Q5 \*



Q6 \*



Q7 \*



Q8 \*



Q9 \*



Q10 \*



**Q11 \***



**Q12 \***



**Q13 \***



**Q14 \***



**Q15 \***



**Q16 \***



**Q17 \***



**Q18 \***



**Q19 \***



Q20 \*

1 2 3 4 5 6 7

inefficient        efficient

Tr

Image

Video

Text

Q21 \*

1 2 3 4 5 6 7

clear        confusing

Q22 \*

1 2 3 4 5 6 7

impractical        practical

Tr

Image

Video

Text

Q23 \*

1 2 3 4 5 6 7

organized        cluttered

Q24 \*

1 2 3 4 5 6 7

attractive        unattractive

Q25 \*

1 2 3 4 5 6 7

friendly        unfriendly

Q26 \*

1 2 3 4 5 6 7

conservative        innovative

#### Instructor specific questions

Please read the questions carefully and submit your answer.

This tool would help me detect students at risk quickly ( < 2 weeks ) and plan interventions. \*

Choose to what extent you agree with the above statement.

1 2 3 4 5 6 7

Completely disagree        Completely agree

Please elaborate on your answer above.

Optional

Tr

Image

Video

Text

Long answer text

I could integrate this tool into my existing pedagogy. \*

Choose to what extent you agree with the above statement.

1    2    3    4    5    6    7

Completely disagree



Completely agree

Please elaborate on your answer above.

Optional

Long answer text

Tr



Any other comments regarding the software?

Long answer text

Tr



After section 6 Submit form

Section 7 of 11

## Student

⋮

Description (optional)

Describe your background. \*

- First year computer science undergraduate.
- Computer science undergraduate (2nd year +).
- Computer science postgraduate (taught).
- Other...

Where do you study? \*

- University of Glasgow
- Other...

After section 7 Continue to next section

Section 8 of 11

## Student - Accessing the web application

⋮

During this survey you will be required to use the software to complete several tasks. These tasks represent common use cases for students. To do this, you must access the web application and log in.

Open the software using the link below. Then return to this survey.

<https://qlitmnms3a-vioxgpwe4okw6.eu.s5y.io/>

For convenience, it is recommended that you arrange this survey's window next to the web application once you have opened it, as shown in the image below.

**Confirmation \***

I have successfully logged in and checked the box in the spreadsheet using the links above.

Please describe your background. \*

A computer science lecturer  
 A lecturer in a STEM subject  
 A lecturer in a non-STEM subject  
 A computer science tutor  
 A STEM tutor  
 A non-STEM tutor  
 Other:

[Back](#) [Next](#)

**Check In**

A feedback tool to monitor progress in labs and assist instructors with providing support to students as fast as possible.

Login with your university email

Email \_\_\_\_\_

Password \_\_\_\_\_

[Sign in](#)

Check the box below to confirm that you have successfully opened the web application window \* and are ready to log in.

I have opened the application and am ready to log in.

After section 8 Continue to next section

Section 9 of 11

## Student - Getting evaluation login credentials

To login, you are required to use test account credentials. Please read all instructions before continuing.

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1	<b>Copy one of the unused login emails below.</b>		
2	When you have finished, please check the box.		
3			
4	<b>Login Email</b>	<b>Password</b>	<b>Login successful?</b>
5			<input checked="" type="checkbox"/>
6	example@glasgow.ac.uk	password	<input type="checkbox"/>
7			<input checked="" type="checkbox"/>
8			<input checked="" type="checkbox"/>
9			<input checked="" type="checkbox"/>
10			<input checked="" type="checkbox"/>

Log in to the application using the email and the password 'password'.

## Check In

A feedback tool to monitor progress in labs and assist instructors with

Login with your university email

Email

example@glasgow.ac.uk

Password

\*\*\*\*\*

[Sign in](#)

Confirm you have successfully logged in on the spreadsheet by ticking the 'Login successful?' box next to the username you chose. Note that this will blank out the credentials to prevent other users from using this account. Return to the survey.

	A	B	C
1	<b>Copy one of the unused login emails below.</b>		
2	When you have finished, please check the box.		
3			
4	Login Email	Password	Login successful?
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6			<input checked="" type="checkbox"/>
7			<input checked="" type="checkbox"/>
8			<input checked="" type="checkbox"/>
9			<input checked="" type="checkbox"/>
10			<input checked="" type="checkbox"/>

Open the login spreadsheet using the link below. Follow the instructions given above then return to this survey.

[https://docs.google.com/spreadsheets/d/1xxWX3\\_N07WqRGazEBxM3mlItSzTwScbEQ0ujTL-hZrQ/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1xxWX3_N07WqRGazEBxM3mlItSzTwScbEQ0ujTL-hZrQ/edit?usp=sharing)

Check the box below to confirm that you have successfully logged in and are ready to begin the \* tasks.

I have successfully logged in and am ready to begin the tasks.

After section 9 Continue to next section

### Section 10 of 11

## Student Tasks

In this first section, you will be asked to complete a series of tasks in the application. Each task will be a scenario. Please indicate if you completed, partially completed or did not complete each one.

You have logged in to the application for the first time. You want a detailed explanation of the \* features on the home screen. Open the page's documentation.

- Completed
- Partially completed
- Unable to complete

A lab is a 'hands on' class where you put into practice material learnt in lectures. You have just completed your most recent lab and wish to complete a feedback survey for it in the application. You found the lab quite difficult, but very interesting. The material was unfamiliar and you struggled with the task. However, at the end you felt very good about completing it and learnt several new skills. In general, you are enjoying the course. Open the lab survey for the most recent lab and complete it based on the above information.

- Completed
- Partially completed
- Unable to complete

Review the answers you just submitted on the course summary page. \*

- Completed
- Partially completed
- Unable to complete

You wish to review your lab responses on another course. Go to a different course summary \*  
page.

- Completed
- Partially completed
- Unable to complete



Identify the lab you most struggled with in this course. \*

- Completed
- Partially completed
- Unable to complete



You want to complete another of your pending lab surveys. However, you do not wish to submit \*  
the first question. Additionally, you realise you are really struggling on this course. Begin another  
survey, this time skip the first question and leave a negative journal entry.

- Completed
- Partially completed
- Unable to complete

Locate your responses to the survey you just completed. Confirm that the journal entry is \*  
flagged as negative.

- Completed
- Partially completed
- Unable to complete



You realise you need additional support in this course because you are finding the assignment \*  
difficult. Flag yourself as needing support and provide the reason.

- Completed
- Partially completed
- Unable to complete

Go to your home page. Confirm your support status for that course now shows that you have \*  
flagged yourself as needing support.

- Completed
- Partially completed
- Unable to complete



Suddenly you make great progress in the assignment. Remove the support flag you created in \*  
the previous task.

- Completed
- Partially completed
- Unable to complete

Log out of the application and close the window, then return to this survey. \*

- Completed
- Partially completed
- Unable to complete

After section 10 Continue to next section

Section 11 of 11

## Student Evaluation Survey

Now you have finished specific tasks, we would like you to evaluate your overall experience with the software.

To clarify, the following questions do NOT relate to the previous individual tasks, rather they concern your general experience and impressions of the product.

### Software Evaluation

The first section consists of 26 pairs of contrasting attributes that may apply to the software. The circles between the attributes represent gradations between the opposites. You can express your agreement with the attributes by selecting the circle that most closely reflects your impression.

Please decide spontaneously. Don't think too long about your decision to make sure that you convey your original impression. Sometimes you may not be completely sure about your agreement with a particular attribute or you may find that the attribute does not apply completely to the software. Nevertheless, please click a circle in every line.

It is your personal opinion that counts. Please remember: there is no wrong or right answer!

This is an example response.

#### Example:

attractive         unattractive

This response would mean that you rate the application as more attractive than unattractive.

Q1 \*

1      2      3      4      5      6      7

annoying        enjoyable

Q2 \*

1      2      3      4      5      6      7

not understandable        understandable

Q3 \*

1      2      3      4      5      6      7

creative        dull

Q4 \*

1      2      3      4      5      6      7

easy to learn        difficult to learn

Q5 \*

1      2      3      4      5      6      7

valuable        inferior

Q6 \*

1 2 3 4 5 6 7

boring        exciting

Tr

Up

Down

Left

Q7 \*

1 2 3 4 5 6 7

not interesting        interesting

Q8 \*

1 2 3 4 5 6 7

unpredictable        predictable

Tr

Up

Down

Left

Q9 \*

1 2 3 4 5 6 7

fast        slow

Q10 \*

1 2 3 4 5 6 7

inventive        conventional

Q11 \*

1 2 3 4 5 6 7

obstructive        supportive

Tr

Up

Down

Left

Q12 \*

1 2 3 4 5 6 7

good        bad

Q13 \*

1 2 3 4 5 6 7

complicated        easy

Q14 \*

1 2 3 4 5 6 7

unlikable        pleasing

Tr

Up

**Q15 \***

1 2 3 4 5 6 7

usual

leading edge



**Q16 \***

1 2 3 4 5 6 7

unpleasant

pleasant



**Q17 \***

1 2 3 4 5 6 7

secure

not secure

**Q18 \***

1 2 3 4 5 6 7

motivating

demotivating

**Q19 \***

1 2 3 4 5 6 7

meets expectations

does not meet expectations



**Q20 \***

1 2 3 4 5 6 7

inefficient

efficient

**Q21 \***

1 2 3 4 5 6 7

clear

confusing

**Q22 \***

1 2 3 4 5 6 7

impractical

practical



**Q23 \***

1 2 3 4 5 6 7

organized

cluttered

**Q24 \***

1      2      3      4      5      6      7

attractive                                                unattractive

Q25 \*

1      2      3      4      5      6      7

friendly                                                unfriendly

Q26 \*

1      2      3      4      5      6      7

conservative                                                innovative

**Student specific questions**

Please read the questions carefully and submit your answer.

If I were struggling on a course, using this software would encourage me to seek support sooner \*  
than if I were not using it.

Choose to what extent you agree with the above statement.

1      2      3      4      5      6      7

Completely disagree                                                Completely agree

Please elaborate on your answer above.

Optional

Long answer text

Using this software gives me confidence that my instructors will support me. \*

Choose to what extent you agree with the above statement.

1      2      3      4      5      6      7

Completely disagree                                                Completely agree

Please elaborate on your answer above.

Optional

Long answer text

Any other comments regarding the software?

Long answer text