

CS5760 Usability Test Plan

Team 6 - Trip Tracker

Testing Information:

For this process, eight usability testing sessions have been organized. Rohith Challapalli (UX Consultant) and two or three members of Team 6 will run each session. The following are the session dates and times along with the development team attendees:

1. April 10th, 2022 10:00 AM to 11:00 AM (EST)
Developers: Alec Brinker, Jade Wang, Jordan Gunning
2. April 10th, 2022 11:00 AM to 12:00 PM (EST)
Developers: Alec Brinker, Jade Wang, Jordan Gunning
3. April 11th, 2022 10:00 AM to 11:00 AM (EST)
Developers: : Alec Brinker, Jade Wang
4. April 11th, 2022 11:00 AM to 12:00 PM (EST)
Developers: : Alec Brinker, Jade Wang
5. April 11th, 2022 12:00 PM to 1:00 PM (EST)
Developers: : Alec Brinker, Jade Wang
6. April 14th, 2022 10:00 AM to 11:00 AM (EST)
Developers: Jordan Gunning, Alec Brinker
7. April 14th, 2022 11:00 AM to 12:00 PM (EST)
Developers: Jordan Gunning, Alec Brinker
8. April 14th, 2022 12:00 PM to 1:00 PM (EST)
Developers: Jordan Gunning, Alec Brinker

All sessions will be conducted remotely using Zoom as the testing platform. Participants will not be given access to the application until the testing begins, at which point a link to the application will be distributed in the Zoom chat. The administrator, assisting development team members, and the participant are all required to have access to the following:

1. A Computer / Laptop / Tablet
2. Strong Internet Connectivity
3. latest version of Zoom
4. Working Microphone and Speaker
5. Working Camera (optional)

The administrator and assisting development team members will further require access to the following:

- A copy of the bug report form.

- A copy of the testing challenges form.
- A time recorder (stopwatch, clock app, etc.).

Testing Process:

The testing process will then proceed as follows:

Initially,

1. A Zoom meeting will be set up, and the corresponding link will be sent to the participant one or two days prior to the scheduled testing session. The email lets participants know that the session will be recorded.
2. The development team members and the administrator will also be provided with the zoom link 2 days prior to the scheduled session. The email will include information regarding their roles and their tasks.
3. The administrator and assisting development team members are required to arrive at the testing session at least 5 mins before to ensure the testing can begin as soon as the participant joins the meeting.
4. A check will be conducted by the administrator to ensure that the session is being recorded and that the screen sharing option is enabled for all participants.
5. Once the participant joins the meeting, the administrator will explain the project briefly and the procedure of the testing.
6. The administrator will obtain the participant's verbal authorization to participate. The remaining procedures will proceed assuming continued permission from this point forward. The participant may cancel consent at any time, and the testing session would be effectively ended.
7. Now the participants are provided with the link to the application. Now they must start the screen sharing.
8. The participant will then attempt to complete the scenario as described to the best of their ability and will be encouraged to think aloud throughout.
9. After every scenario a list of questions is sent to the participant and their responses are recorded.
10. This repeats for all the scenarios and if that is not the last scenario the participant will be asked to close the application and reopen it again.
11. Finally, after finishing all the scenarios the participant is provided with a post-test questionnaire and the responses are recorded.
12. Now the participants can leave the session and the meeting will be concluded in a few minutes.

Testing Scenarios:

Test Scenario 1

1. Test Scenario Name: Accessing the website and creating a new account
2. Goals: Observe participants create a new account.
3. Required Equipment and Software: Zoom Conferencing Software, web browser, internet connection.
4. Quantitative Measurements:
 - (a) Different ways the participants try to finish the task.
 - (b) Time taken to finish the task
5. Scenario Description:
 - (a) Explain the new application and its purpose.
 - (b) The developers and consultants will be answering the questions.
 - (c) The goal is to create a new account.
6. Task List:
 - (a) Go to the link: <https://hci-dev.cs.mtu.edu:8149/TripTracker/>
 - (b) Click the login button.
 - (c) Click the create new account button.
 - (d) Enter Tech username (MTU email Id without @mtu.edu).
 - (e) Verify Email Id, by entering the validation code.
 - (f) Enter and verify your password.
 - (g) Click on create new account button.
7. Qualitative Measurements:
 - (a) The scenarios that are not clear for the participants.
 - (b) Errors did by the participant during the process.
 - (c) What questions do the participants ask?
 - (d) If participants have finished the task given in each scenario?
8. Test Setup Details: The participants can open the trip tracker in their browser, using this link: <https://hci-dev.cs.mtu.edu:8149/TripTracker/> and share their screen on Zoom.

Test Scenario 2

1. Test Scenario Name: Login to the application
2. Goals: See how the participants try to log in.
3. Required Equipment and Software: Zoom Conferencing Software, web browser, internet connection.
4. Quantitative Measurements:
 - (a) Different ways the participants try to finish the task.
 - (b) Time taken to finish the task
5. Scenario Description:
 - (a) Explain the new application and its purpose.
 - (b) The developers and consultants will be answering the questions.
 - (c) The goal is to log in using the credential used in Test Scenario 1.
6. Task List:
 - (a) Go to the link: <https://hci-dev.cs.mtu.edu:8149/TripTracker/>
 - (b) Click the login button.
 - (c) Enter Username.
 - (d) Enter Password.
 - (e) Click the Login button.
7. Qualitative Measurements:
 - (a) The scenarios that are not clear for the participants.
 - (b) Errors did by the participant during the process.
 - (c) What questions do the participants ask?
 - (d) If participants have finished the task given in each scenario?
8. Test Setup Details: The participants can open the trip tracker in their browser, using this link: <https://hci-dev.cs.mtu.edu:8149/TripTracker/> and share their screen on Zoom.

Test Scenario 3

1. Test Scenario Name: Record a trip.
2. Goals: Observe that the participants can record a trip.
3. Required Equipment and Software: Zoom Conferencing Software, web browser, internet connection, Smartphone.
4. Quantitative Measurements:
 - (a) Different ways the participants try to finish the task.
 - (b) Time taken to finish the task
5. Scenario Description:
 - (a) Explain the new application and its purpose.
 - (b) The developers and consultants will be answering the questions.
 - (c) The goal is to record a short trip.
6. Task List:
 - (a) The user should open this link on a smartphone: <https://hci-dev.cs.mtu.edu:8149/TripTracker/>
 - (b) Login using the given credentials.
 - (c) Enter an origin and destination.
 - (d) Record a short 30-second trip.
 - (e) Stop the recording and upload the trip.
7. Qualitative Measurements:
 - (a) The scenarios that are not clear for the participants.
 - (b) Errors did by the participant during the process.
 - (c) What questions do the participants ask?
 - (d) If participants have finished the task given in each scenario?
8. Test Setup Details: The participants can open the trip tracker in their browser, using this link: <https://hci-dev.cs.mtu.edu:8149/TripTracker/> and share their screen on Zoom.

Test Scenario 4

1. Test Scenario Name: View/Delete previous trips
2. Goals: Observe that the participants can view their trip history and delete a trip if necessary.
3. Required Equipment and Software: Zoom Conferencing Software, web browser, internet connection.
4. Quantitative Measurements:
 - (a) Different ways the participants try to finish the task.
 - (b) Time taken to finish the task
5. Scenario Description:
 - (a) Explain the new application and its purpose.
 - (b) The developers and consultants will be answering the questions.
 - (c) The goal is to view the trip history and delete a trip from the history.
6. Task List:
 - (a) Go to the link: <https://hci-dev.cs.mtu.edu:8149/TripTracker/>
 - (b) Login using the given test credentials
 - (c) Click on View/Download a trip.
 - (d) Click the delete button next to a trip and delete the trip.
7. Qualitative Measurements:
 - (a) The scenarios that are not clear for the participants.
 - (b) Errors did by the participant during the process.
 - (c) What questions do the participants ask?
 - (d) If participants have finished the task given in each scenario?
8. Test Setup Details: The participants can open the trip tracker in their browser, using this link: <https://hci-dev.cs.mtu.edu:8149/TripTracker/> and share their screen on Zoom.

Post-Test Questionnaire:

Link: <https://forms.gle/1KagTqCMyRX3YWH39>

1. Overall, User Interface of Application is simple and easy to use
 - (a) Agree
 - (b) Neutral
 - (c) Disagree
2. The Application is flexible and has a quick load time.
 - (a) Agree
 - (b) Neutral
 - (c) Disagree
3. The navigation across different pages is available and easy.
 - (a) Agree
 - (b) Neutral
 - (c) Disagree
4. Overall performance of the application is good.
 - (a) Agree
 - (b) Neutral
 - (c) Disagree

Bug Report Form:

When a user experiences an issue, they are given a unique bug number as well as a bug name. An asterisk is placed next to a bug when it is first discovered. An asterisk is not added and the description is not recorded a second time if the bug affects numerous users or even the same user. However, the same name is recorded again. Members of the development team will assist in detecting and logging bugs.

[illegible]

Testing Challenges Form:

Like the bug report form here Testing challenges are issues with the testing environment that do not involve the app that the administrator, development team members, or the participant may face. For Example, the zoom link did not work, or they were not able to join the zoom meeting using the link provided.

[illegible]

Consent Form:

You are being invited to participate in a research study to determine the usefulness and usability of computer user interfaces. This study is being conducted by Dr. Robert Pastel of Michigan Technological University, Computer Science Department, and Dr. Pastel's Human-Computer Interaction (HCI) courses. The students are performing the usability tests as part of their project and to fulfill the HCI course requirements.

There are no known risks if you decide to participate in this research study. There are no costs to you for participating in the study. The information you and the tasks that you will perform will determine the usefulness and usability of user interfaces. The questionnaires and the tasks should take less than an hour to complete. The information collected may not benefit you directly, but the information learned in this study should provide more general benefits.

The questionnaires and tests are anonymous. No one will be able to identify you and your answers, and no one will know whether you participated in the study except for the instructor of the class who is giving you credit for participating. Should the data be published, no individual information will be disclosed.

Your participation in this study is voluntary. By completing the questionnaires and performing the tasks, you are voluntarily agreeing to participate. You are free to decline to answer any question you do not wish to answer or not to perform a task for any reason.

The testing may make use of video conferencing software which will record your tasks on the computer's screen and from your webcam. The webcam recordings will not be shared, and you may mute the webcam at any time. Before sharing your screen, you should clear your desktop of any open apps except your browser. Also, you should clear your desktop of any icons or widgets that you wish not to be observed.

If you have any questions about the study, please contact Dr. Robert Pastel, Associate Professor, Computer Science Department, Michigan Technology University, Houghton, MI 49931.