Usability Test Report

Asher

A report on usability testing sessions

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Summary

This report documents the findings of a usability test of the application Asher developed by the development team. The main purpose of the testing was to assess the usability of the application for users.

Positive aspects of application:

• User Friendly: The participants of the testing session found the user interface and certain functionalities of the application user friendly.

• Smooth and easy to navigate: Although the application was still under development, participants were able to perform the scenarios successfully without any error for most of the testing sessions, except some initial sessions where some features are still in development.

Improvements for Asher application:

Underdeveloped features: The Create account functionality for registering new users is yet to be deployed, the ash color ruler should be zoomed in when pressed for clear view of colors.

Screen space utilization: When testing it is observed that there is much white space left unused, especially on desktops.

Introduction

The term "User Interface" (UI) describes the interactive and visual components of a program or application that let users engage with it. In order for the user to interact with the software, they must interact with buttons, menus, forms, and other graphical elements. To make sure your software is visually pleasing, functional, and offers a satisfying user experience, user interface testing is crucial.

Objectives for Testing

1. Usability: For example, conduct usability testing sessions with real users to determine how easy it is to use the interface, complete daily tasks, and obtain feedback on overall satisfaction. external: Make sure your user interface is visually appealing, consistent, and follows accepted design guidelines.

2. Functionality: Check to make sure all of his interactions and user interface elements work as they should.

Example of a test: To ensure that menus, buttons, forms, and other user interface (UI) elements perform as intended and provide reliable results, such as data validation and error handling, do functional tests.

3.Responsiveness: Ensure that the user interface can adapt to different devices and screen sizes.

Test Example: Perform responsive testing across a number of devices, including desktops, laptops, tablets, and mobile phones, to make sure that the user interface (UI) is displayed correctly and that interactions function across a range of screen sizes and resolutions.

4. Accessibility:

To guarantee that the user interface conforms with accessibility standards and is usable by all users, including those with impairments.

Test Example: To ensure that the user interface (UI) is both usable and complies with accessibility requirements, do accessibility testing using tools such as screen readers, keyboard-only navigation, and other assistive technologies.

Test Plans: Login, Logout and create account.

Before starting the session, participants were read the consent form to agree to test and then tell briefly their backgroun .

Overview : Give a brief description of the Asher application. This test case was used to evaluate the functionality of login, logout and create account feature.

Test Objectives: To test the log in, logout and create account functionality of the application.

Test Schedule: The test is carried out on the following dates, in-person mode at the university library. Each session had a duration of half an hour with one participant and 3 developers along with the UX consultant.

4/6/2024 1:00 PM
4/6/2024 2:00 PM
4/7/2024 1:00 PM
4/7/2024 2:00 PM
4/11/2024 4:00 PM
4/14/2024 2:00 PM
4/9/2024 3:30 PM
4/9/2024 5:00 PM

●**Test Resources:** The resources needed for testing are any electronic device with stable internet connection and login credentials.

● **Test Deliverables:** As part of the test deliverable, participants' reactions to the scenario are observed, and any faults found throughout the process are noted so they may be fixed later.

● **Test Environment :** Friendly environment including the hardware(laptop/desktop), software and network configurations that will be used for testing.

● **Test Execution:** The scenario was described to the participant. The participant logins by entering their Email and password.

The expected task List for successful test execution:

1. Open the app and log in to your account.

2. See if user can access all the pages, without any crashes.

3. Logout the user and see if any difficulty is faced.

4. Create account by giving necessary credentials and login again.

Scenario termination: The participant was informed that the testing for this scenario is completed, and bugs were noted down.

Test Plan 2: Responsiveness

Before Session:
Before commencing the session, participants were presented with the consent form, ensuring their acknowledgment and agreement for testing. Following this, each participant briefly shared their background information relevant to technology and application usage.

Overview:
The Asher application is a platform designed to offer users seamless access to its features across multiple devices. This test specifically focused on evaluating the functionality of the login, logout, and account creation features.

Test Objectives:
Participants were tasked with testing the application's responsiveness across various devices.

Scope:
The testing scope encompassed all devices, including laptops, tablets, and smartphones, across different platforms such as Windows, Android, and iOS.

Test Schedule:
Testing sessions were conducted at the university library on the following dates:

4/6/2024 1:00 PM
4/6/2024 2:00 PM
4/7/2024 1:00 PM
4/7/2024 2:00 PM
4/11/2024 4:00 PM
4/14/2024 2:00 PM
4/9/2024 3:30 PM
4/9/2024 5:00 PM

Each session lasted for half an hour, involving one participant, accompanied by 3 developers and a UX consultant.

Test Resources:
Participants were provided with electronic devices with stable internet connections and login credentials for testing purposes.

Test Deliverables:
Observations were made regarding participants' reactions to the scenario, and any identified faults or challenges encountered during the testing process were documented for resolution.

Test Environment:
The testing environment was configured to be user-friendly, ensuring compatibility with various hardware (laptops/desktops), software, and network configurations required for testing.

Test Execution:
Participants were presented with the scenario, assuming the role of first-time users of the Asher application. They were provided with the application link and instructed to perform the following tasks:

1. Open the app and log in to their account.
2. Ensure seamless access for all pages without encountering crashes.
3. Log out of the user account and report any difficulties faced in terms of responsiveness.
4. Create a new account using necessary credentials and log in again.

Scenario Termination:
Upon completion of the testing scenario, participants were notified that the testing session had concluded. Any identified bugs or issues were duly noted down for further analysis and resolution.

This comprehensive testing approach aimed to ensure the accessibility and functionality of the Asher application across diverse devices, providing valuable insights for refinement and improvement.

Test Plan 3:

Before Session:
Participants were briefed on the test scenario and its objectives, emphasizing the importance of successfully submitting duplicate data into the form. Each participant's understanding of the task was confirmed before proceeding.

Overview:
Test Scenario 3 focused on evaluating the functionality of form submission within the Asher application, with specific emphasis on photo upload and ash color selection. The test aimed to verify whether users could successfully submit duplicate data into the form, including geo-coordinates, picture uploads, ash color selection, and other specified fields as required for data collection.

Test Objectives:

The primary objective was to assess the application's capability to handle duplicate data submission, particularly focusing on photo uploads and ash color selections.

Scope:

The testing scope encompassed the entire form submission process, including accessing the website, logging into the application, submitting required values, uploading photos via in-app camera feature and files option, selecting ash color from the displayed ruler, and finally submitting the form.

Test Schedule:

Testing sessions were conducted at the university library on the following dates:

4/6/2024 1:00 PM
4/6/2024 2:00 PM
4/7/2024 1:00 PM
4/7/2024 2:00 PM
4/11/2024 4:00 PM
4/14/2024 2:00 PM
4/9/2024 3:30 PM
4/9/2024 5:00 PM

Each session lasted for the specified duration, allowing participants to thoroughly evaluate the form submission process.

Test Resources:

Participants utilized electronic devices with stable internet connections to access the Asher application for testing purposes.

Test Deliverables:
Observations were made regarding the successful submission of duplicate data into the form, including photo uploads and ash color selections. Any discrepancies or issues encountered during the process were documented for further analysis and resolution.

Test Environment:
The testing environment was configured to replicate real-world conditions, ensuring compatibility with various devices and network configurations required for accessing the application.

Test Execution:
Participants followed the provided scenario text, assuming the role of team members visiting the assessment site. They were instructed to perform the following tasks:

1. Access the website.
2. Login/register and then log in to the application.
3. Submit required values.
4. Upload photos to the application using both the in-app camera feature and files option.
5. Select ash color from the displayed ruler.
6. Ensure that the selected ash color is reflected in the relevant field.
7. Submit the form.

Scenario Termination:
Upon completion of the test scenario, participants were informed that the testing session had concluded. Any issues or discrepancies encountered during the form submission process were noted down for further investigation and resolution.
This test provided valuable insights into the application's ability to handle duplicate data submission and effectively process various inputs, contributing to the overall enhancement of the Asher application's functionality and user experience.

Test Plan 4 Edit the submitted form.
Before Session:
Participants were briefed on Test Scenario 4, which aimed to assess the application's capability to allow users to edit a previously submitted form containing incorrect information. The importance of data accuracy and the need for a feature to edit submitted forms were emphasized.

Overview:
Test Scenario 4 focused on evaluating the functionality of the form editing feature within the Asher application. The test aimed to determine whether users could successfully edit a previously submitted form containing errors and resubmit it with corrected information.

Test Objectives:
The primary objective was to assess the application's ability to enable users to edit submitted forms, ensuring data accuracy and integrity.

Scope:
The testing scope encompassed the entire process of editing a submitted form, including accessing the edit option from the dashboard, entering correct data, and resubmitting the form.

Test Schedule:
Testing sessions were scheduled at the university library on the following dates:

4/6/2024 1:00 PM
4/6/2024 2:00 PM
4/7/2024 1:00 PM
4/7/2024 2:00 PM
4/11/2024 4:00 PM
4/14/2024 2:00 PM
4/9/2024 3:30 PM
4/9/2024 5:00 PM

Each session had a specified duration to allow participants to thoroughly evaluate the form editing functionality.

Test Resources:
Participants utilized electronic devices with stable internet connections to access the Asher application for testing purposes.

Test Deliverables:
Observations were made regarding the ease of editing submitted forms and the successful resubmission of corrected data. Any issues or challenges encountered during the process were documented for further analysis and resolution.

Test Environment:
The testing environment was configured to replicate real-world conditions, ensuring compatibility with various devices and network configurations required for accessing the application.

Test Execution:
Participants followed the provided scenario text, assuming the role of users who identified errors in a previously submitted form. They were instructed to perform the following tasks:

1. Log in to the application if not already logged in.
2. Click on the "edit last form" option available on the dashboard.
3. Enter correct data to replace erroneous information.
4. Attempt to resubmit the form with the corrected data.

Scenario Termination:
Upon completion of the test scenario, participants were informed that the testing session had concluded. Any difficulties faced or issues encountered during the form editing process were noted down for further investigation and resolution.

This test provided insights into the application's ability to maintain data accuracy by allowing users to edit and resubmit forms containing errors, contributing to the overall improvement of the Asher application's functionality and user experience.

Results:

During the testing sessions, it was observed that certain features, such as account creation, updating forms, viewing last saved forms, and picture upload functionality, were not implemented for some sessions by the development team. This could have been due to various reasons such as ongoing development work, prioritization of other features, or technical constraints.
However, it's important to note that by the end of the testing period, all features were eventually tested. While there were initial limitations in testing certain functionalities, the development team ensured that all features were implemented and made available for testing as the sessions progressed.

Based on the post-completion questionnaire results from the eight participants, it's evident that there was a strong understanding of the overall use of the application, with half of the users rating it a perfect 10. This

suggests that the application effectively communicated its functionalities and features to the majority of participants. However, there were also users who rated their understanding lower, with 12% each giving ratings of 6 and 9. This indicates a potential need for clearer instructions or onboarding processes for some users.

When it comes to the ease of use, ratings were varied but generally positive. A significant portion of participants, 25% in total, rated the application a 7, indicating that while they found it relatively easy to use, there may have been some minor challenges or areas for improvement. Additionally, 12% of participants rated it either a 6 or a 9, suggesting that there were mixed experiences in terms of ease of use.

Regarding the application's effectiveness as a source for data collection, the majority of participants (87.5%) rated it highly. This indicates a strong vote of confidence in the application's ability to fulfill its intended purpose. However, there was a small percentage (12%) who rated it as neutral, suggesting that there may be room for improvement or specific areas where the application could better meet users' data collection needs.
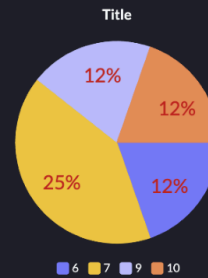
Overall, the participants' experiences with the application were largely positive, with a quarter of them rating their overall experience between 9 and 10. This suggests that the application generally met or exceeded expectations for a significant portion of users. However, there were also participants who rated their experience lower, with 12% giving ratings of 6 or 7. This highlights the importance of continuous improvement efforts to address any issues or concerns raised by users and ensure a consistently positive user experience.

Post Testing questions
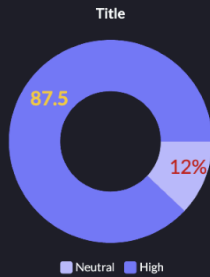
Understanding of application

Title

50%
12%
12%
25%

6 7 9 10

Ease of use

Title

12%
12%
12%
25%

6 7 9 10
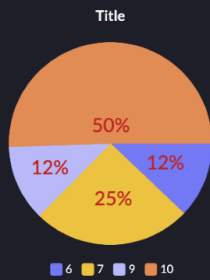
Post Testing questions

Good source to collect the data

Title

87.5
12%

Neutral High

Overall experience with application

Title

25%
25%
12%
25%
12%

6 7 9 9.5 10
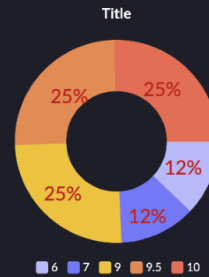
Conclusion:
Participant's Recommendation:
1) Utilize White screen :
      Many of the participants suggested to utilize the screen space, as they felt most of the space if left out, especially on desktop screens.
2) Ash ruler popping :
  Many participants when asked if they were comfortable with selecting the color from ruler they suggested to better pop it up when pressed or selected a color from it.
3) Space between field:
  Many participants felt the field in the beginning new form could have been given extra spacing between them.
4) Work on some colors:
One of out participant felt the UI of the app can be more effective if more colors can be used in terms of backgrounds, buttons and texts.
<u>Bug report</u>
Below is the list of bugs identified in the process of testing the application. A total of 8 bugs were identified and they were ranked according to their severity in terms of functionality of the application. Few bugs were resolved after identifying while some stayed unresolved over the course of testing.

Bug Number	Bug Name	Bug description	Severity
1	Submit button	The submit button was not displayed when testing for scenario 3. User has to zoom out.	Low. (Resolved)
2	Wrong format	The Gelocation field in the begin new form is accepting the alphabetical values .But, it is suposed to take only the numerical values.	High(Resolved)
3	Required fields	The participant was able to submit the form even when fields were left empty.	High(Resolved)
4	Session Management	If the user press back button while in login page, the user is sent to the login page, but can press forward button and be logged in again without password	High
5	Imposter Buttons	The buttons(delete uploaded picture, rotate) in the submit form and edit form were not working	Low
6	Ash ruler	The ash ruler should be popped up when selected or pressed on it	Medium
7	No old picture	When edit last submiited form selected, user was able to see the last uploaded picture(preview)	Medium
8	Other's form	If no form was submitted by the user and edit last form selected, User was able to see the last form submitted by other user(most recent one	High

Undergraduate Team attendance:

UX Consultant - Test Session	Grad Student	Test Date and Time	Development Team Members Assisting (At least 3 developers)	Attended Yes/No
✅ 1	Dinakar	4/6/2024 1:00 PM	Ransom Duncan Mitch Konoya Jacob Strome	Yes Yes Yes
✅ 2	Dinakar	4/6/2024 2:00 PM	Mitch Konoya Jacob Strome Cami Maynard	Yes Yes Yes
✅ 3	Dinakar	4/7/2024 1:00 PM	Cami Maynard Logan Woznak Ransom Duncan	Yes Yes Yes
✅ 4	Dinakar	4/7/2024 2:00 PM	Cami Maynard Atharva Kadam Logan Woznak	Yes Yes Yes
✅ 5	Dinakar	4/9/2024 3:30 PM	Jacob Strome Jyoti Suhag Cami Maynard	Yes Yes Yes
✅ 6	Dinakar	4/9/2024 5:00 PM	Jyoti Suhag Atharva Kadam Ransom Duncan	Yes Yes Yes
✅ 7	Dinakar	4/11/2024 4:00 PM	Mitch Konoya Jyoti Suhag Ransom Duncan	Yes Yes Yes
✅ 8	Dinakar	4/14/2024 2:00 PM	Mitch Konoya Jacob Strome Cami Maynard	Yes Yes Yes

Testing challenges:

Apart from application context, some features being not implemented in the initial stages of testing, there were no notable Testing challenges.

Acknowledgments

I would like to express my gratitude to all the participants who took part in the usability testing of the Asher application. I would also like to thank our development team for their hard work and dedication in creating the app and for providing invaluable support and feedback throughout the development.