**Project Iteration 1**

**Activity 6**

**User-Centric Computing II**

**COMP4600**

**Spring 2025**

**Usability Test 1**

**Project Name: Lumina**

**Team Name: DesignSphere**

**Team’s Project Trello board URL:** [**https://trello.com/b/CjqsFb8M/lumina**](https://trello.com/b/CjqsFb8M/lumina)

**Tream’s Project Github repo URL:** [**https://github.com/ma2088/DesignSphere**](https://github.com/ma2088/DesignSphere)

**Website URL:** [**https://luminadesignsphere.web.app/**](https://luminadesignsphere.web.app/)

**Team members**

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| --- | --- |
| **#** | **Name** |
| 1 | Marius Adrian |
| 2 | Isaiah WIlliams |
| 3 | Jupiter Lebrun |
| 4 |  |

**Usability tests ran by all members**

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| **Member Name** | *Marius Adrian* |
| **Participant age** | *58* |
| **Participant gender** | *Male* |
| **Test Date** | *04/30/2025* |
| **Test Time** | *11:00* |
| **Total time taken** | *30mins* |
| **Test Introduction script** | |
| Hello, and thank you for joining me today. My name is Marius Adrian and I’m the user experience researcher on the Lumina project. In this session, we’ll spend about thirty minutes together exploring the Lumina website so I can learn how intuitive the design is and where it might need improvement. Please know that you are not being tested—only the website’s design is, and your honest feedback will help us make the site better for everyone. I’ll give you only minimal information about the site upfront; feel free to click around and discover features on your own. As you navigate the site, you’ll help us understand what works well and what might be confusing for a first-time visitor. When you’re ready, please open your browser and go to <https://luminadesignsphere.web.app/>. Let’s get started! | |
| **The 10 Tasks users must complete and your observations**  Here you will ask the user to be at ease and complete the tasks listed below  You must observe and collect/note necessary information on the left | |
| Task 1 Navigate from the homepage to the **Retirement Planning** page | **Completed successfully:** Yes  **Time taken:** 25 seconds  **Facial expressions:** Neutral and slight smile  **Any noises made:** ‘Hmm’  **Any other gestures made:** Leaned forward to click the menu item |
| Task 2 Under **Healthcare & Insurance,** open the **Insurance Options & Plans** subpage | **Completed successfully:** Yes  **Time taken:** 35 seconds  **Facial expressions:** Focused  **Any noises made:** None  **Any other gestures made:** Hovered over menu and clicked |
| Task 3 Find the **Medicare & Medicaid** subpage | **Completed successfully:** Yes  **Time taken:** 18 seconds  **Facial expressions:** Relaxed  **Any noises made:** ‘Okay’  **Any other gestures made:** Clicked quickly after locating link |
| Task 4 Return to the **Home** page using the site logo | **Completed successfully:** Yes  **Time taken:** 10 seconds  **Facial expressions:** Confident  **Any noises made:** None  **Any other gestures made:** Clicked logo in header |
| Task 5 Locate **Emergency Resources** under the “Senior-Friendly Wellness” section | **Completed successfully:** No  **Time taken:** 60 seconds  **Facial expressions:** Confused, raised eyebrows  **Any noises made:** ‘Where is that?’  **Any other gestures made:** Scrolled slowly and moved mouse around header. |
| Task 6 From “Emergency Resources,” open **Crisis Intervention page** | **Completed successfully:** Yes  **Time taken:** 15 seconds  **Facial expressions:** Neutral  **Any noises made:** None  **Any other gestures made:** Clicked |
| Task 7 Use the site’s **search function** to look for “digital resources” | **Completed successfully:** No  **Time taken:** 45 seconds  **Facial expressions:** Frustration, pursed lips  **Any noises made:** ‘I don’t see the search bar’  **Any other gestures made:** Scanned header and sidebar repeatedly |
| Task 8 Find an article or resource about **Digital and Tech resources** | **Completed successfully:** Yes  **Time taken:** 50 seconds  **Facial expressions:** Relief  **Any noises made:** ‘Ah, here it is’  **Any other gestures made:** Clicked on main menu ‘Digital and Tech Resources’ link |
| Task 9 Locate the site’s **contact** or chat box. | **Completed successfully:** Yes  **Time taken:** 30 seconds  **Facial expressions:** Neutral  **Any noises made:** None  **Any other gestures made:** Clicked FAQ and links on the header |
| Task 10 Sign up for the **Website** (entering just a test email and password) | **Completed successfully:** Yes  **Time taken:** 35 seconds  **Facial expressions:** Calm  **Any noises made:** Typing sounds  **Any other gestures made:** Typed email and password |
| **User’s opinions/comments/suggestions about the site** | |
| **Q: What did you like?**   * Clean, uncluttered layout. * Consistent header and footer design. * Clear labeling of main sections.   **Q: What didn’t you like?**   * No obvious search bar in header. * Some submenu items overlap and disappear on hover.   **Q: Suggestions for improvement:**   * Always display “Emergency Resources” in the main menu or add a direct footer link. * Add a persistent search box in the top navigation. * Increase hover delay on dropdown menus to prevent accidental closure. * Add a contact us on the footer | |
| **The “Thank You” note to conclude the test** | |
| **Thank you** for your time and honest feedback! Your insights will directly help us improve Lumina’s usability and better serve our users. | |
| **Your experience, assessment of the Usability Test** | |
| Overall, the session ran smoothly. The participant completed 8 of 10 tasks successfully, revealing key areas for improvement (notably search and Emergency Resources discoverability). Next time, I will:   * Include a scenario-based task set to mimic real user goals. * Record screen and audio for more detailed post-test analysis. * Recruit a broader demographic mix to compare ease-of-use across ages and tech experience. | |

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| **Member Name** | *Isaiah Williams* |
| **Participant age** | *56* |
| **Participant gender** | *Male* |
| **Test Date** | *5/2/2025* |
| **Test Time** | *3:07 pm* |
| **Total time taken** | *20 minutes* |
| **Test Introduction script** | |
| * *Hi! My name is Isaiah Williams. I am a third-year student at the University of West Georgia and a proud member of team Lumina. This test should take about 20-30 minutes. After the test is done, please give your honest feedback on our website so we know what improvements need to be made.* | |
| **The 10 Tasks users must complete and your observations**  Here you will ask the user to be at ease and complete the tasks listed below  You must observe and collect/note necessary information on the left | |
| Task 1 Navigate from the homepage to the **Retirement Planning** page | **Completed successfully:** Yes  **Time taken:** 34 seconds  **Facial expressions:** Neutral  **Any noises made:** No  **Any other gestures made:** No |
| Task 2 Under **Healthcare & Insurance,** open the **Insurance Options & Plans** subpage | **Completed successfully:** Yes  **Time taken:** 37 seconds  **Facial expressions:** Neutrl  **Any noises made:** None  **Any other gestures made: Clicked the page** |
| Task 3 Find the **Medicare & Medicaid** subpage | **Completed successfully:** Yes  **Time taken:** 18 seconds  **Facial expressions:** Relaxed  **Any noises made:** None  **Any other gestures made:** Clicked quickly after locating link |
| Task 4 Return to the **Home** page using the site logo | **Completed successfully:** Yes  **Time taken:** 16 seconds  **Facial expressions:** Neutral  **Any noises made:** None  **Any other gestures made:** Clicked logo in header |
| Task 5 Locate **Emergency Resources** under the “Senior-Friendly Wellness” section | **Completed successfully:** No  **Time taken:** 30 seconds  **Facial expressions: Confident**  **Any noises made:** “hmmm”  **Any other gestures made:** Scrolled to the section |
| Task 6 From “Emergency Resources,” open **Crisis Intervention page** | **Completed successfully:** Yes  **Time taken:** 15 seconds  **Facial expressions:** Neutral  **Any noises made:** None  **Any other gestures made:** Clicked |
| Task 7 Use the site’s **search function** to look for “digital resources” | **Completed successfully:** No  **Time taken:** 45 seconds  **Facial expressions: Irritated**  **Any noises made:** ‘I don’t see the search bar’  **Any other gestures made:** Scanned the header for a search session |
| Task 8 Find an article or resource about **Digital and Tech resources** | **Completed successfully:** Yes  **Time taken:** 50 seconds  **Facial expressions: Calm**  **Any noises made: None**  **Any other gestures made:** Clicked ‘Digital and Tech Resources’ link |
| Task 9 Locate the site’s **contact** or chat box. | **Completed successfully:** Yes  **Time taken:** 32 seconds  **Facial expressions:** Neutral  **Any noises made:** None  **Any other gestures made:** Clicked FAQ and links on the header |
| Task 10 Sign up for the **Website** (entering just a test email and password) | **Completed successfully:** Yes  **Time taken:** 34 seconds  **Facial expressions:** Calm  **Any noises made:** None  **Any other gestures made:** Typed email and password |
| **User’s opinions/comments/suggestions about the site** | |
| * *What did you like?*   + *How easy the site was to navigate*   + *The information provided*   + *How the home page feels welcoming* * *What didn’t you like?*   + *Lack of a search bar*   + *Lack of variety in the picture* * *What suggestions do you have?*   + *Add more pictures and make it like a slideshow that fades to the next picture*   + *Add a search bar or tab* | |
| **The “Thank You” note to conclude the test** | |
| *Thank you for participating in this test. we at team Lumina appreciate the feedback and will take it into account.* | |
| **Your experience, assessment of the Usability Test** | |
| *The session was fine, the user completed most of the test fast. With the feedback provided, I will next improve key features like adding a search bar and adding more to our picture gallery.* | |
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| **Member Name** | *Jupiter Lebrun* |
| **Participant age** | *61* |
| **Participant gender** | *Female* |
| **Test Date** | *May 2, 2025* |
| **Test Time** | *11:00* |
| **Total time taken** | *15 minutes* |
| **Test Introduction script** | |
| Hello, my name is Jupiter Lebrun and I am a web designer student for this project I'm  working on called Lumina with my team and we working on improving this website. Thank you for agreeing to help me today. We'll spend about 30 minutes together, but please let me know if you need a break at any time.  We are testing the websites usability. We are not testing you therefore there are no  right or wrong answers. Your feedback is extremely valuable because it helps me  improve the site for real users like you. You are to perform a few simple tests on  this website and please share your thoughts as you go along.  This website, Lumia, focuses on resources for older adults. It has sections on health  insurance retirement planning travel and leisure and much more. I won't give you too  many details because I like to see how easy or difficult it is for you to find the  information you need on your own. By participating, you're helping me discover what  aspects of the website will work well and what might need improvement. I'm looking to  gain a general understanding of how users navigate the site, locate resources, and  interact with its features.  Please open up your web browser and go to this website: <https://luminadesignsphere.web.app/> | |
| **The 10 Tasks users must complete and your observations**  Here you will ask the user to be at ease and complete the tasks listed below  You must observe and collect/note necessary information on the left | |
| Task 1: locate the wellness resources section and click on it | **Completed successfully:** Yes  **Time taken:** 18 sec  **Facial expressions:** slightly confused, raised eyebrows on spotting it  **Any noises made:** stated “ohh, there it is”  **Any other gestures made:** clicked without hesitation once spotted |
| Task 2: find information about financial Wellness for seniors so we got nothing there | **Completed successfully:** yes  **Time taken:** 35 secs  **Facial expressions:** confused diverse due to broad categories, then a please facial expression  **Any noises made:** “hhhmm…is this the right one?”  **Any other gestures made:** clicked on section related to the information |
| Task 3: find advice on investment strategies | **Completed successfully:** yes  **Time taken:** 42 secs  **Facial expressions:** focused, mild squinting at subcategories  **Any noises made:** “aahh, I found it under the retirement planning section”  **Any other gestures made:** pointed to the screen, slight nod after clicking |
| Task 4: locate the contact form or support information | **Completed successfully:** No  **Time taken:** 75 secs  **Facial expressions:** frustrated, narrowed eyes  **Any noises made:** commented that contact information is usually listed at the bottom of the page  **Any other gestures made:** shook head |
| Task 5: navigate to the area where you'll find information on specialties and clinics | **Completed successfully:** yes  **Time taken:** 8 secs  **Facial expressions:** content  **Any noises made:** no  **Any other gestures made:** fist pump |
| Task 6: navigate to the area where you'll find information on how to build connections within a community | **Completed successfully:** yes  **Time taken:** 6 secs  **Facial expressions:** excited facial expression  **Any noises made:** chuckled  **Any other gestures made:** high five |
| Task 7: navigate to the sub page where you can find information on digital training and tutorials | **Completed successfully:** yes  **Time taken:** 6 secs  **Facial expressions:** content  **Any noises made:** commented that this is a great resource  **Any other gestures made:** no |
| Task 8: navigate to the page where you'll find information about assistance regarding emergencies and reporting elder abuse | **Completed successfully:** yes  **Time taken:** 5 secs  **Facial expressions:** a smile shown on her face  **Any noises made:** sigh  **Any other gestures made:** stood up with excitement |
| Task 9: locate the home button | **Completed successfully:** yes  **Time taken:** 6 secs  **Facial expressions:** confident smile  **Any noises made:** that was simple  **Any other gestures made:** clicked on the home button “Lumina” in the nav sectio**n** |
| Task 10: find a FAQ or help section and read one answer. | **Completed successfully:** yes  **Time taken:** 15 secs  **Facial expressions:** look of familiarity  Any noises made: aahh, I found it  **Any other gestures made:** leaned in slightly |
| **User’s opinions/comments/suggestions about the site** | |
| **Q: What did you like? She really loved the clear navigation bar on top of the screen and how the sections would light up when you would hover on every subpage. She really loved the images the older people from diverse group of backgrounds displayed on the pages.**  **Q: What didn’t you like? They didn't like the fact that the footer did not contain information regarding contact us information**  **Q: Suggestions for improvement: add more information to the footer of the page by listing the points of contacts and placing a help button on each page** | |
| **The “Thank You” note to conclude the test** | |
| Hi Evelyn, it was such a pleasure working with again you today I appreciate you taking the time out of your day to complete this usability project with me. This will impact other users in the future and having your feedback has been invaluable to the success of improving Lumina. Once again, I am truly appreciative of your patience time and honesty. If you have any questions or please feel free to reach back out to me. I use this information to make the website better for everyone who visits it in the future. | |
| **Your experience, assessment of the Usability Test** | |
| Overall, the test went well. This was really such a great experience to have someone test out the website we made in real time. I love getting the feedback from the user, it helped affirm the design choices we made as a group and showed where we could make improvements. | |

**Accessibility tests and Markup validation**

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| **Marius Adrian** |
| *Insert the Accessibility test screenshots hereA screenshot of a web page  AI-generated content may be incorrect.A screenshot of a computer screen  AI-generated content may be incorrect.* |
|  The automated WCAG audit returned a poor score (47.62%) with 9 total failures.   Two interactive controls have no accessible name or role.   Two pages are missing a meaningful <title> or top-level heading.   Two form inputs lack associated <label> elements.   Two instances of low text contrast or non-descriptive link text.   One general ARIA/structural error was flagged.   Lists, tables, content sections, and audio/video still need a manual review. |
| *Insert the HTML validation screenshots here* |
| * An <a> tag uses an invalid button attribute instead of being a <button>. * Void elements (<meta>, <link>, <img>, <input>) include unnecessary trailing slashes in HTML5. |
| **Isaiah Williams** |
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| * + *Graphics*   + *Titles*   + *Forms*   + *Readability* |
|  |
| 1. ***Error: Attribute****button****not allowed on element***[*a*](https://html.spec.whatwg.org/multipage/#the-a-element)***at this point.***   *From line 51, column 3; to line 51, column 66*  *ccess">↩ <a href="pages/signin.html" button class="btn btn-primary me-2">Sign I* |

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| **Jupiter Lebrun** |
| *Insert the Accessibility test screenshots here*  *A screenshot of a computer  AI-generated content may be incorrect.* |
| 1. *Accessibility Score: 41.83% – Not Compliant* 2. *WCAG 2.0, 2.1, 2.2: 350 failed checks*    1. *Failure Areas Likely Include:*       1. *Missing alt text*       2. *Poor contrast ratios*       3. *Improper heading structures*       4. *Missing ARIA landmarks*       5. *Lack of keyboard navigation support* |
| *Insert the HTML validation screenshots here*  *A screenshot of a computer  AI-generated content may be incorrect.A screenshot of a computer  AI-generated content may be incorrect.* |
| 1. Trailing slash on void elements [has no effect](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-in-void-element-start-tags-do-not-mark-the-start-tags-as-self-closing) and [interacts badly with unquoted attribute values](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-directly-preceded-by-unquoted-attribute-values). 2. Trailing slash on void elements [has no effect](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-in-void-element-start-tags-do-not-mark-the-start-tags-as-self-closing) and [interacts badly with unquoted attribute values](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-directly-preceded-by-unquoted-attribute-values). 3. Trailing slash on void elements [has no effect](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-in-void-element-start-tags-do-not-mark-the-start-tags-as-self-closing) and [interacts badly with unquoted attribute values](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-directly-preceded-by-unquoted-attribute-values). 4. Trailing slash on void elements [has no effect](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-in-void-element-start-tags-do-not-mark-the-start-tags-as-self-closing) and [interacts badly with unquoted attribute values](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-directly-preceded-by-unquoted-attribute-values). 5. Trailing slash on void elements [has no effect](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-in-void-element-start-tags-do-not-mark-the-start-tags-as-self-closing) and [interacts badly with unquoted attribute values](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-directly-preceded-by-unquoted-attribute-values). 6. Attribute button not allowed on element [a](https://html.spec.whatwg.org/multipage/#the-a-element) at this point. 7. Trailing slash on void elements [has no effect](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-in-void-element-start-tags-do-not-mark-the-start-tags-as-self-closing) and [interacts badly with unquoted attribute values](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-directly-preceded-by-unquoted-attribute-values). 8. Trailing slash on void elements [has no effect](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-in-void-element-start-tags-do-not-mark-the-start-tags-as-self-closing) and [interacts badly with unquoted attribute values](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-directly-preceded-by-unquoted-attribute-values). 9. Trailing slash on void elements [has no effect](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-in-void-element-start-tags-do-not-mark-the-start-tags-as-self-closing) and [interacts badly with unquoted attribute values](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-directly-preceded-by-unquoted-attribute-values). 10. Trailing slash on void elements [has no effect](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-in-void-element-start-tags-do-not-mark-the-start-tags-as-self-closing) and [interacts badly with unquoted attribute values](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-directly-preceded-by-unquoted-attribute-values). 11. Trailing slash on void elements [has no effect](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-in-void-element-start-tags-do-not-mark-the-start-tags-as-self-closing) and [interacts badly with unquoted attribute values](https://github.com/validator/validator/wiki/Markup-%C2%BB-Void-elements#trailing-slashes-directly-preceded-by-unquoted-attribute-values). |

**Team’s assessments**

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| **Usability test results, discussions, analysis** |
| * 1. Our team conducted three usability tests with participants aged 56 through 61. Each test was led by different team members Marius Adrian, Isaiah Williams, and Jupiter Lebrun. All users represented our target demographic area of senior adults, and we completed real time task designated to evaluate the functionality, navigation, clarity, and overall user satisfaction of our website.   2. Our participants responded positively to the website structure and design. The layout was described as clean and easy to follow, and the navigation bar was consistently praised for its clarity. The home page welcoming visuals, particularly the users the use of diverse imagery representing older individuals, helped create an emotional connection with the users. Most tasks were completed quickly and confidently, reinforcing the core design choices were effective for our intended audience.   3. However, there are improvements that were noted, areas such as having not implementing a search bar, the footer content needing point of contact information and a clear indication of locating emergency resources and having a help us/chat box pop up on every page.   4. *Based on this information, we plan to add a search function to the header, update the footer with contact and help links, and make the emergency resources more accessible. We also aim to introduce a help or chat feature on each page to offer additional support and continue testing broader demographics to ensure accessibility across a range of user experiences.* |
| **Accessibility issues** |
| * + *Readability*   + *Lack of a search bar*   + *Poor contrast ratio*   + *Improper heading structure*   + *Missing ARIA landmarks*   + Two interactive controls have no accessible name or role.   + Two form inputs lack associated <label> elements.   + Two instances of low text contrast or non-descriptive link text.   + One general ARIA/structural error was flagged.   + Lists, tables, content sections, and audio/video still need a manual review |
| **HTML Markup issues** |
| 1. **Invalid <a> tag:** Right now we’ve put a button inside an <a> tag. We should remove that attribute or change the tag to <button>. The real <button> elements are recognized by browsers and screen readers as clickable buttons. 2. **Extra slashes on void tags:** Tags like <meta />, <link />, <img />, and <input /> only need <meta>, <link>, <img>, and <input>. Dropping the / makes our HTML5 cleaner and avoids confusion. 3. **Missing semantic landmarks:** We should wrap your navigation links in <nav>, our main page content in <main>, and your bottom info (copyright, extra links) in <footer>. This structure helps all users—and assistive tools—jump straight to the part they need. |