

Volunteer Hub Design Report

Overview:

The Volunteer Hub Design Report details the development of an interactive training application tailored for Barley Hall volunteers. The project focuses on working against challenges around engagement and accessibility, by delivering a user-friendly experience that's easy to understand whilst being structured and valuable to a volunteer. This prototype was developed using an iterative design process, incorporating desk-based research, user data input, analysis, and the creation of a final prototype. Drawing from existing platforms like Duolingo, this design incorporates quizzes, progress tracking and customisable accessibility options to one. Insights from a survey with seven participants highlighted importance surrounding progress tracking and accessible features, which directly influenced the app's development. Focusing on inclusivity, usability and still being educational, the Volunteer Hub combines these ideas to create an immersive app with a wide range of users. This report provides an insight into the methods, decisions that shaped a gamified, accessible and engaging tool for enhancing the volunteer experience.

Design Approach:

The Volunteer Hub UI followed a structured iterative design process that prototyped user needs and requirements to aid development.

Research and Site Visit:

Both desk-based research and stakeholder insights informed the design, whilst still focusing on engagement and accessibility at Barley Hall.

- Observations of the rooms: Each room's architecture and purpose highlighted a need for a modular content system that aligned with each room of the building.
- Volunteer Interactions: Conversations with staff showed a necessity for a simple and accessible platform for learning, that provides tailors to the demographic to allow for better knowledge.
- Engagement techniques used: Interactive demonstrations by picking up physical artefacts, distinct room narratives and interests.

How these insights shaped the design:

Both desk and on-site research played important roles in shaping the volunteer hub:

- Themed modular content: The app's structure mirrors that of the room-based layout of Barley Hall, making the content accessible and easy to navigate.
- Gamification: Guided tour interactions inspired features such as quizzes and progress tracking to mimic the sense of being asked questions whilst volunteering.
- Accessibility: After Observing, I noticed varied demographics at the hall, which highlights the need for customisable features that make the app more accessible.

Additional Inspirations:

1. Duolingo: A learning app known for its gamified progress tracking with streaks, where it influenced the quizzes and trophies for completing tasks.
2. Google Arts & Culture: An interactive platform that emphasises on increased accessibility and immersion for all users, that helped to inspire the integration of videos and customisable settings.
3. The British Museum Interactive Collection: This platform influenced the app's navigational system, where progress tracking is allowed once people have worked through certain sections but not finished.

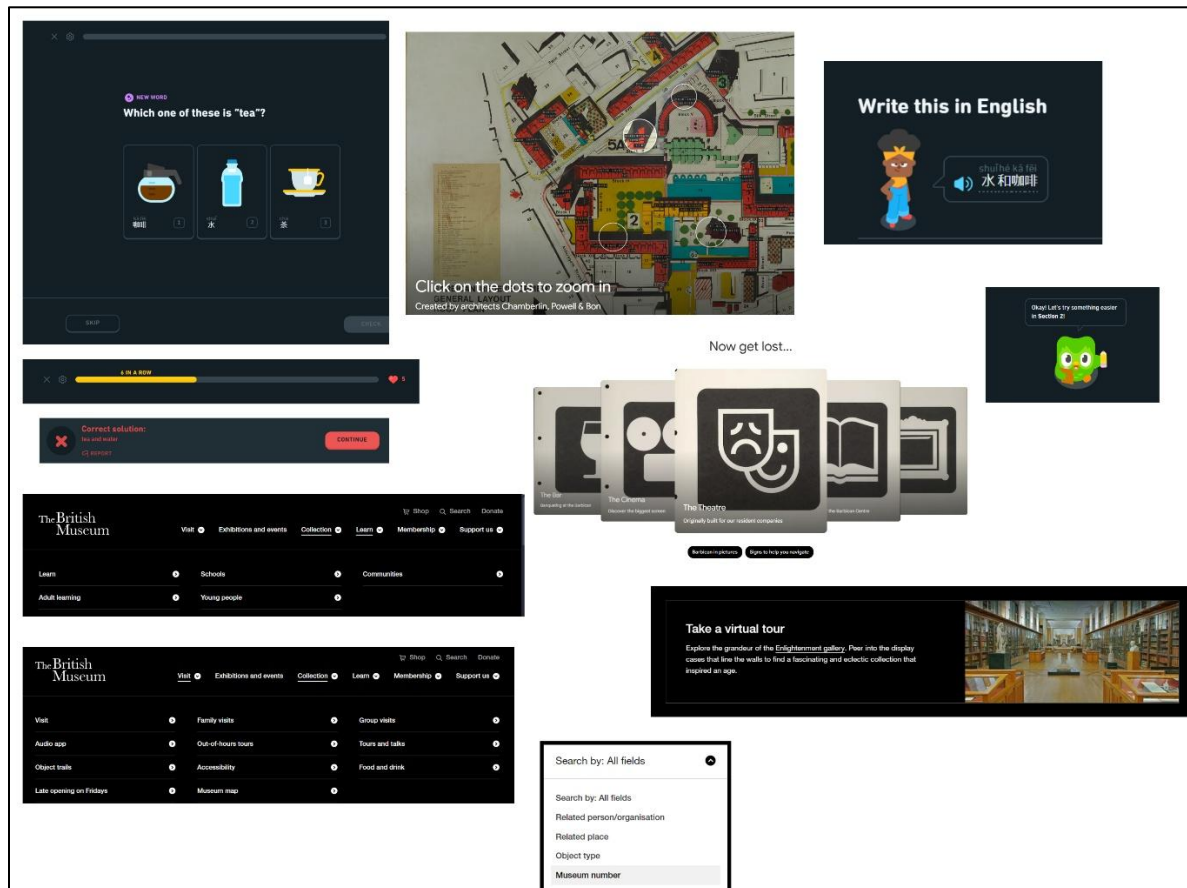


Figure 1 –Inspirational Images, gamification, accessibility and navigation tools.

Ethical Data Gathering:

The process followed the University of York TFTI departmental ethical guidelines, a structured questionnaire was used in compliance with GDPR. Participants were informed on consent and the details of the study, data protection and anonymity. No special category data was collected and all data to be destroyed after project completion.

Research Informing Design:

Data gathered from desk-based research guided the creation of a user persona and journey map that helped to streamline the design process. After analysing survey data question-by-question and through affinity-mapping, user preferences such as progress tracking and

accessible content were highlighted. These insights directly shaped the personas and journey maps.

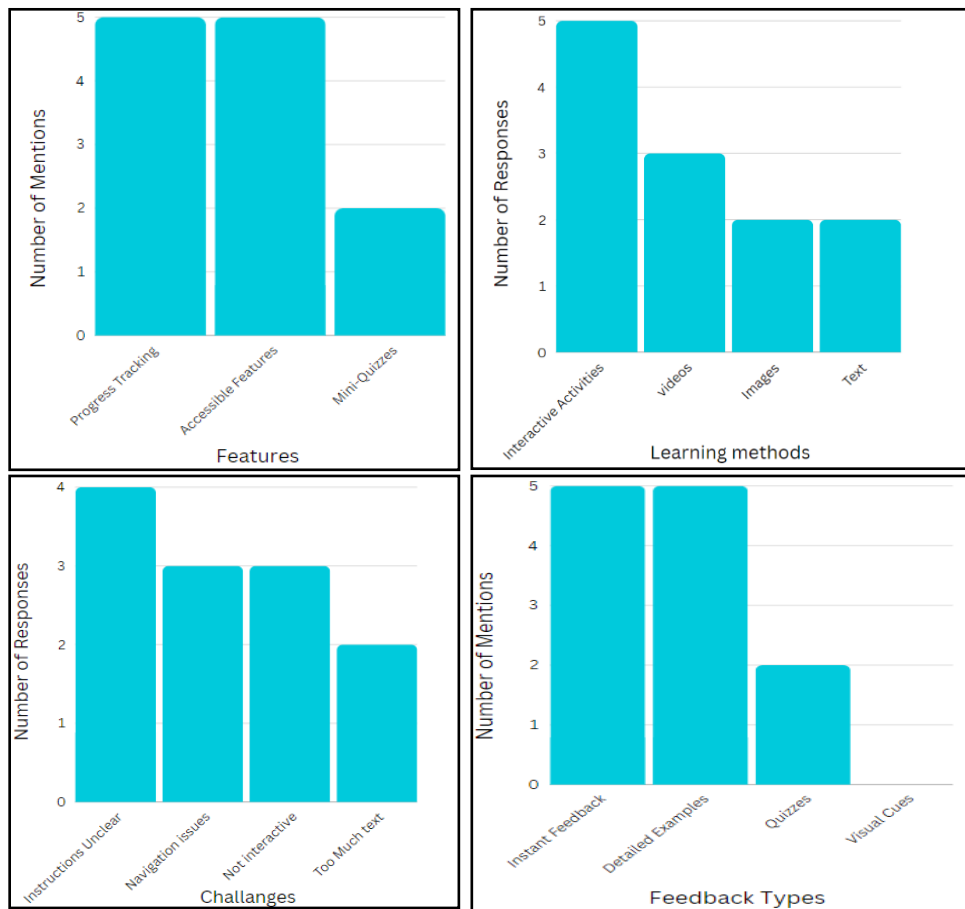


Figure 2 - Responses Analysis (1)

After using affinity mapping four main themes were noticeable, these insights helped to inform very key design decisions throughout the development process:

1. Engagement Strategies: Addressing the “boring” and less exciting nature of training materials through forms of interactivity and gamification of elements.
2. Feedback Mechanisms: Real time feedback after quizzes leads to an enhanced understanding and reinforces the learning of users.
3. Personalization: Providing a varied number of ways which users can learn tailored to their preferences, including association to real world applications
4. Accessibility: Ensuring that the app is inclusive through captions, adjustable text colours and dark mode.

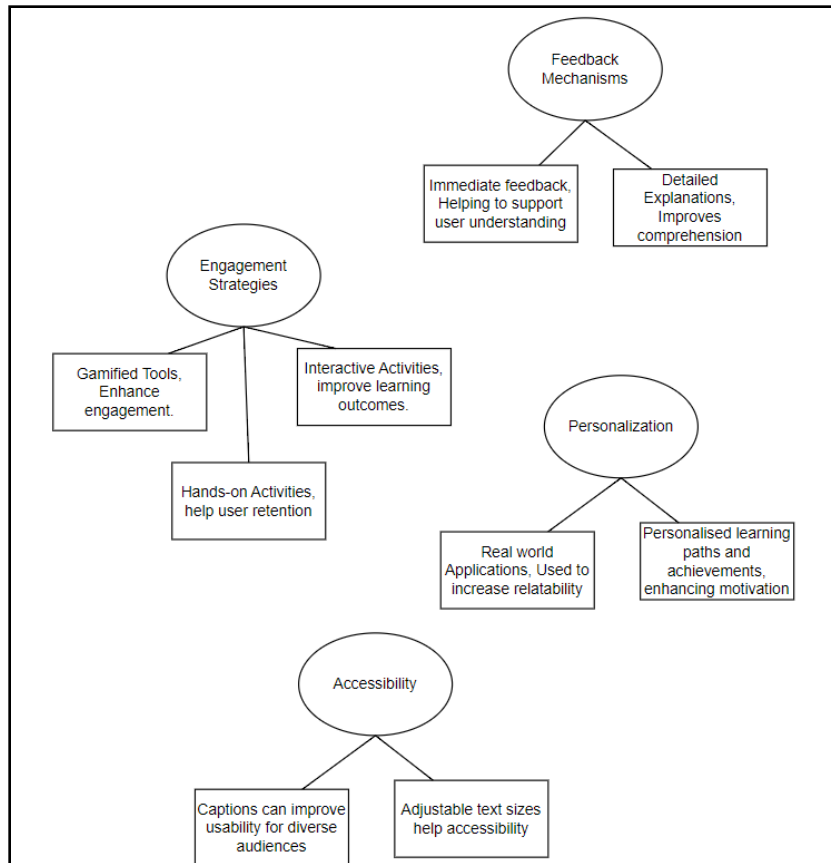


Figure 3- Affinity Mapping

Based on the information provided and the summarised responses, I created a template for a typical user that can be used with the development. This template was refined further by aligning against the requirements. This integration of user insights and requirements ensured the final design met both user expectations and technical requirements. A persona acted as a focus point that connected these two showing how it would interact.

User Persona Characteristics:

Demographics:

- **Age:** Highly mixed age ranges.
- **Background:** Volunteering open to anyone, students, retired, or professionals. Most likely to have an interest in Historical Ideas and work.
- **Technical Understanding:** Majority comfortable with laptops and phones, some may fall under bracket of not having a high technical literacy.

Goals:

- **Be Engaging to Visitors:** Able to be confident in answering questions about historical aspects of Barley Hall.
- **Learn Effectively:** Understand and be able to fully work with the content in easy methods.
- **Keep important Information:** Access and revisit content easily if there is gaps of knowledge.

Difficulties:

- **Bad Resources:** Current training materials are very text based and not engaging.
- **Navigation issues:** Hard to locate information within the data packs. Not a refined method of searching.
- **No interaction:** Existing material is plain text, no hands on interaction for the user.

Preferences:

- **Formats:** Quizzes, videos, images, gamified content.
- **Feedback:** Real-time, giving clear explanations.
- **Revising:** Values progress tracking and easy to access previously learned information.

Context of use:

- **Location:** At home, on desktop/laptop. Unlikely but possible to work on the go on smart phone.
- **Availability:** Engaging in learning sessions with short time spans, around an hour of work a day.

Figure 4 - Typical Persona Characteristics

Persona:

Based on these findings, I built a typical user based on responses:

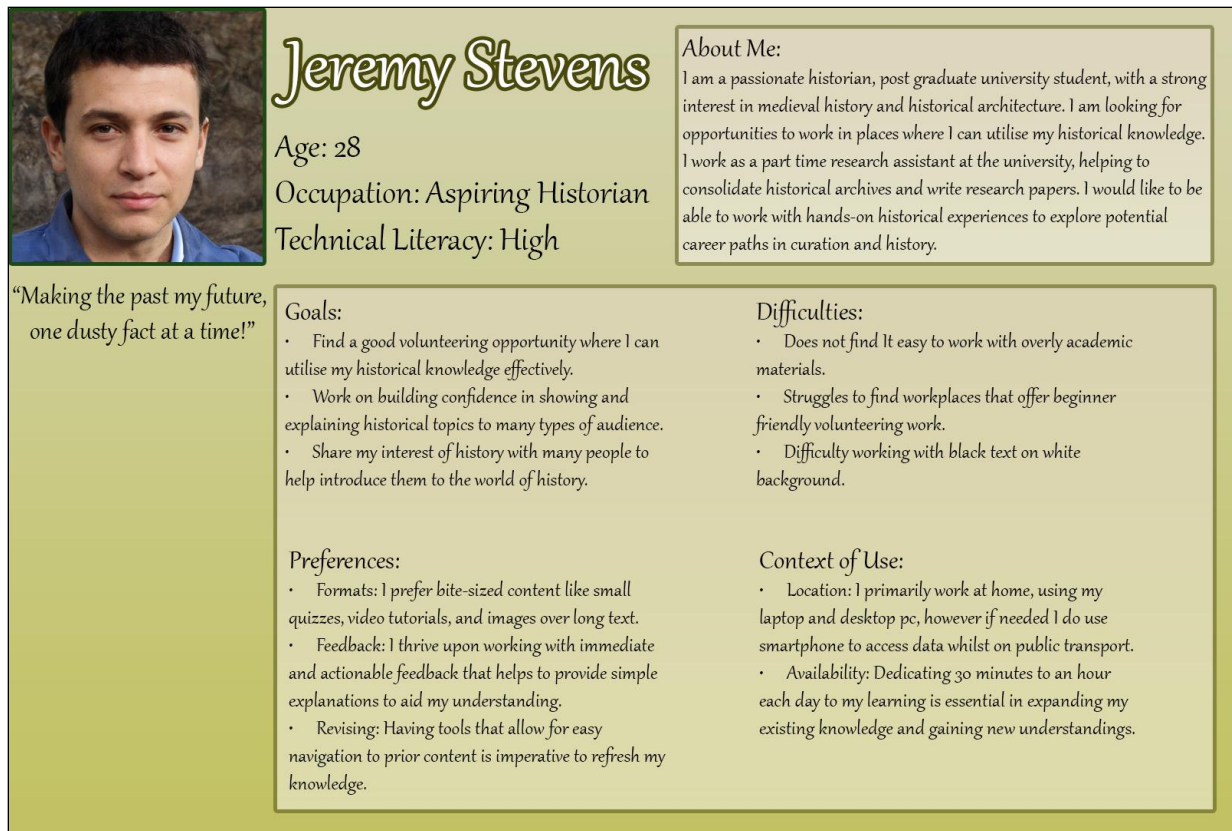


Figure 5 - Jeremy Persona

This persona acted as a baseline user of someone who is reasonably interested and has a general interest and understanding of historical work. When creating the designs it helped to influence on how a person like Jeremy would interact.

Based on Jeremy, I worked on creating a journey map, which uses their traits to show and describe how they would interact with the system.

The Journey:

This User Journey describes how Jeremy Stevens, a potential volunteer for Barley Hall, would interact with the training application. Showing goals, actions, and emotions throughout the navigation process.

Stage	Actions	Thoughts	Emotions	Features Used
Discovery	When applying for the volunteer opportunity, Jeremy finds the training resources on their website.	"This could help me prepare for my short interview, knowing some knowledge may help with my success rate."	Excited and curious to see what the training materials have to offer.	Application main page.
First Interactions	He creates an account, then is greeted with a simple login page and chooses the sign-up option	"This login screen is easy to use, its clear that when I press sign up that it does it correctly"	Motivated to try out the application, optimistic for what it has to offer.	User-friendly registration, tutorial that shows how to use specific features.
Engagement	Starts to look through the contents and opens the "Great Hall" section and watches a video about it. Then goes on to do a mini quiz.	"Having a video there made it very easy to follow, Additionally the quiz helped me" to learn what I had missed.	Focused and confident with the work ahead.	Multimedia content, quizzes with real-time feedback and summaries.
Completion	After finishing the module, he is met with a summary and progress tracker to show how he has worked through it.	"I can't wait to be able to share the knowledge I have learned about the great hall during the interview"	Accomplished and proud of his knew knowledge.	Possible gamified elements such as badges and progress tracking features.
Reflections	Before the interview, he revisits specific points in the module.	"This seems nice to allow for me to understand the information I need for the interview"	He feels confident and prepared for the interview ahead.	Searchable content and bookmarked modules for quick access before the interview.

Figure 6 - User Journey

Conclusion:

Jeremy's journey illustrates the value of gamified learning, revisiting content, and a clear way of checking progress. These features build upon the engagement of a user and their overall understanding of the app itself, doing so ensures the app meets the goals of usability and interactivity for the volunteers.

Design Statement:

The Volunteer hub application addresses two main challenges, visitor engagement and museum accessibility. In terms of Barley Hall, it focuses on its medieval history and ensuring the application maintains that feel. Drawing from desk research and site visit observations, Volunteer Hub provides an inclusive and interactive design that helps to enhance learning for a diverse audience. Certain examples like the British Museum and Google Arts & Culture Highlight the necessity for interactive and engaging systems to make history more accessible.

At Barley Hall, a unique challenge lies in making sure volunteers are given the knowledge to provide engaging and expressive tours for a wide demographic. Based on findings, the Volunteer Hub integrates different features, including gamified features, customisable accessibility options and modular content navigation. Functional requirements such as progress tracking along with real time feedback works to directly address user needs, whilst nonfunctional requirements, such as compatibility and some accessibility needs ensure the system is inclusive and reliable for all. By working with all these requirements and aligning them with insights provided, the Volunteer Hub delivers an interactive and accessible app solution specific to Barley Hall’s needs.

Requirement Type	Details
Functional	Features and functions the application must have:
	Progress tracking: Implement bars, badges, or other visual indicators.
	Real-time feedback: Provide instant and clear feedback for quizzes.
	Revisiting Features: Allow users to go back and review topics.
	Modular Library: Quick access to topics via an organized menu structure.
	Accessible content formats: Include videos, text summaries, and cater to learning preferences.
Non-Functional	How the system performs and meets user needs:
	Accessibility: Include adjustable text size, captions, and contrast modes.
	Compatibility: Support multiple devices (desktop, laptop, and phone).
	Scalability: Ensure the system can handle additional modules or features as needed.
	Performance: Ensure smooth functionality without delays.
	Reliability: Ensure the system operates without errors, and progress-saving works effectively.

Figure 7 - Requirements

Design Context:

The inspiration for the Volunteer Hub was drawn from a variety of sources, these show examples of good practices in terms of accessibility, gamification and different types of media within learning experiences.

1. Duolingo
 - Main feature: progress tracking with streaks and badges.
 - Duolingo Uses a gamified progress tracking system where users can earn streaks by completing lessons on a daily basis.
 - In the volunteer hub, this inspired the use of progress bars in the “My Progress” section along with module completion trophies to reward users after finishing training modules.

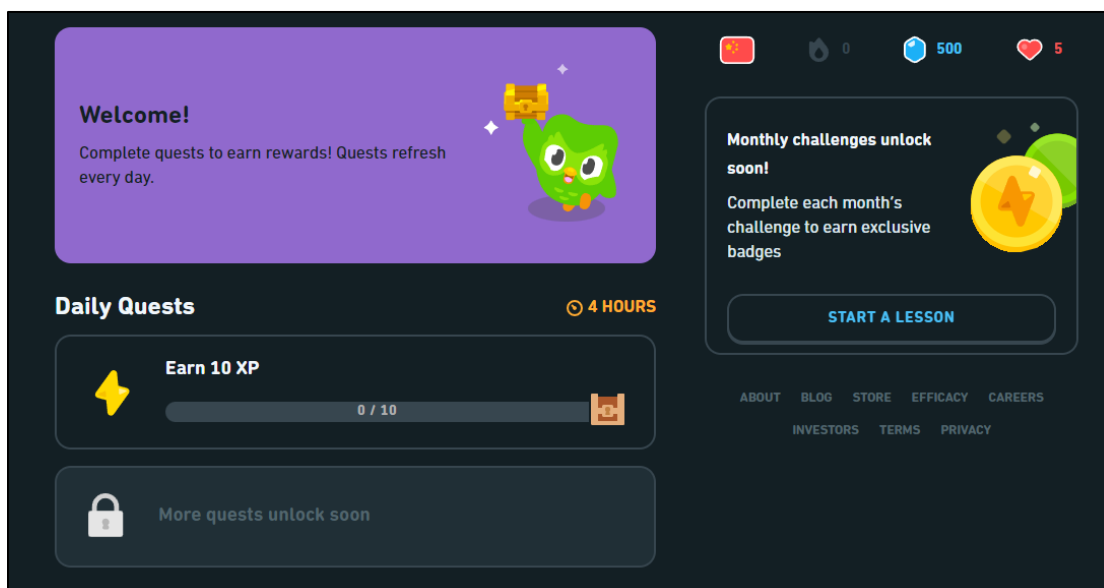


Figure 8 - Duolingo Inspiration

2. Google Arts & Culture
 - Main Feature: Interactive Multimedia content]
 - Google arts and culture allows users to watch detailed videos with caption or explore art pieces in perfect quality.
 - This inspired the integration of multimedia content in the Volunteer Hub, such as videos in the training modules, with option to enable captions along with other customisable like text colouring.

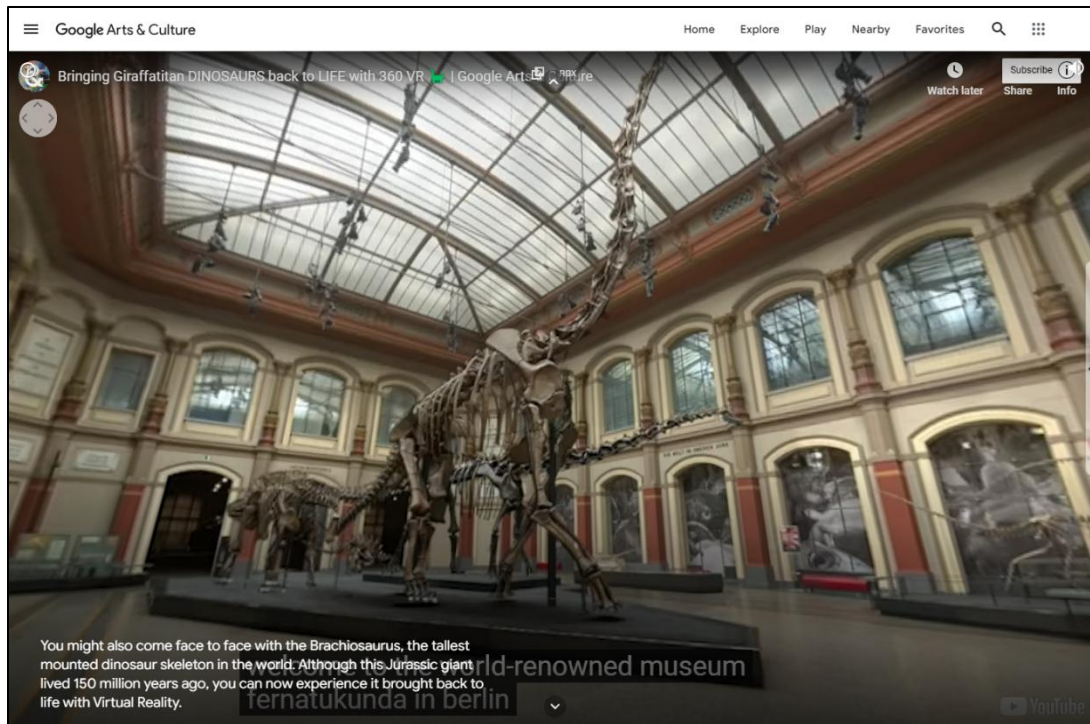


Figure 9 - Google Arts & Culture Inspiration

3. The British Museum Interactive Collection

- Main Feature:
 - The museum allows users to explore historical events and artifacts through varied interactive timelines. Making navigation seamless and easy.
 - This influenced my design through wanting to make a clear navigation structure, also the ability to look back and see progress and access modules to ease use is important.

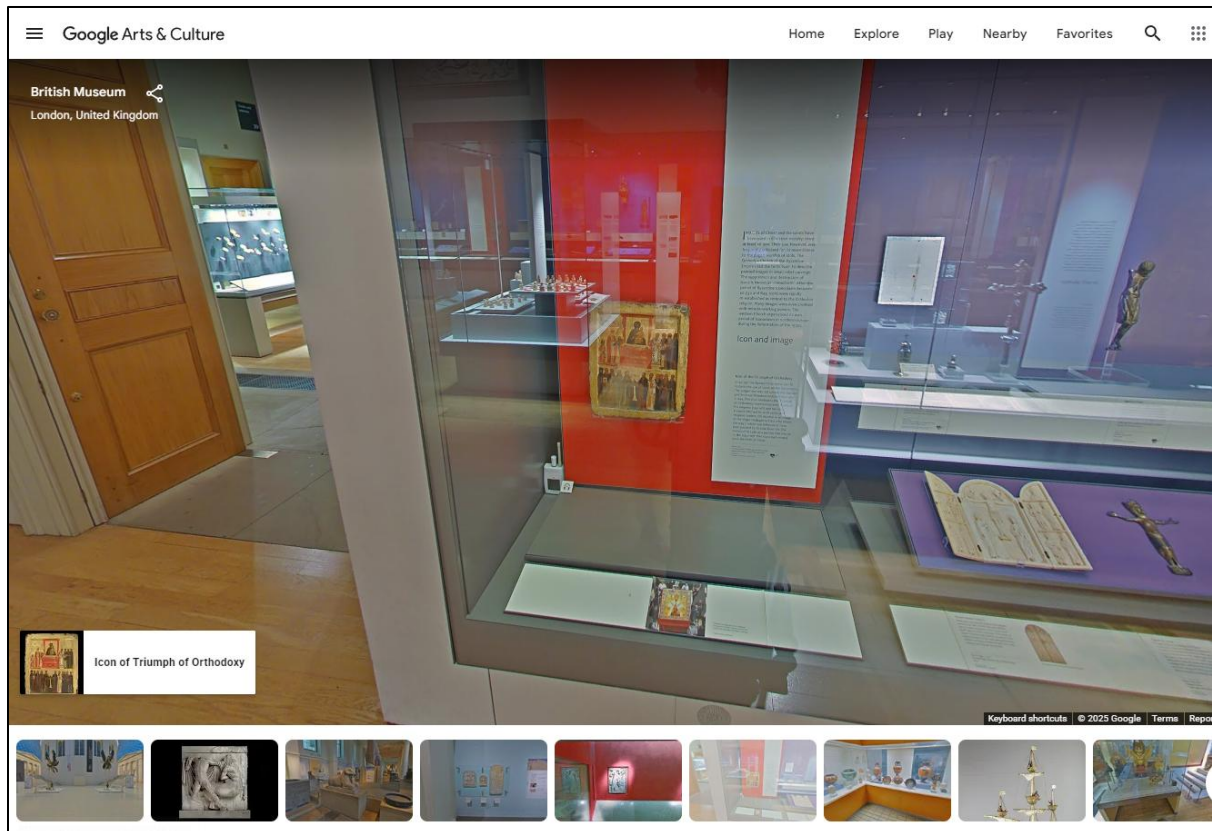


Figure 10 - The British Museum Collection

Overall, these examples served as a foundation for inspirations for the application, influencing its focus on immersive learning, engagement and accessibility. By Integrating ideas from these platforms, the application strives to provide an engaging experience for volunteers using it.

Development Process and Evolution:

The development process for the app adhered to an iterative design process, where it progressed through various stages of prototyping and evaluation to refine the user experience where needed. This section covers the stages from initial designs to final prototype along with a heuristic evaluation.

Initial Sketches and Designs:

The initial sketches focused on user flow, general understanding and ease of use for a typical user. Some functionalities include:

- Minimalistic and easy to understand login screen.
- Module content sections that include videos and quizzes to help engagement.
- Progress tracking for modules to enhance user experience and understandings.
- Settings customisations the improve personalisation.

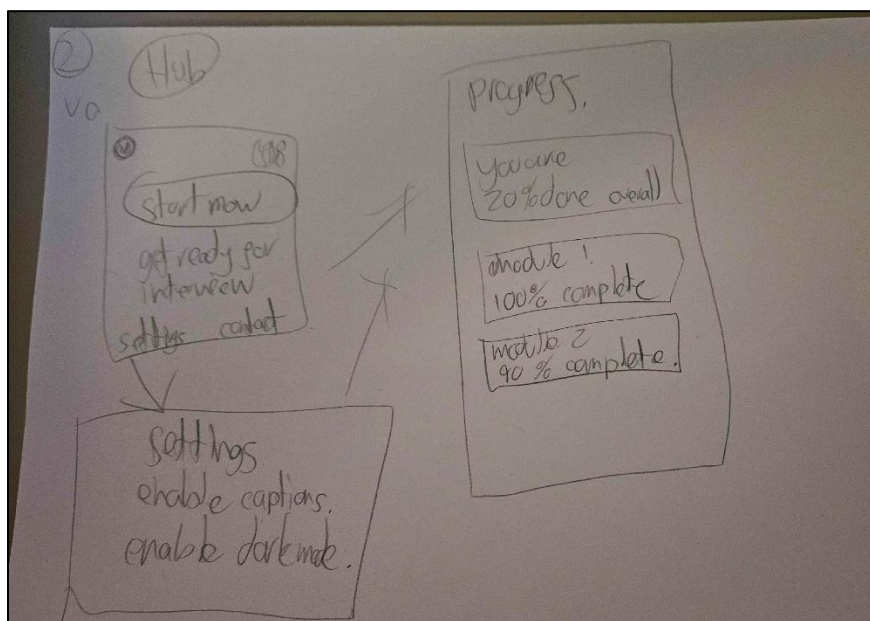
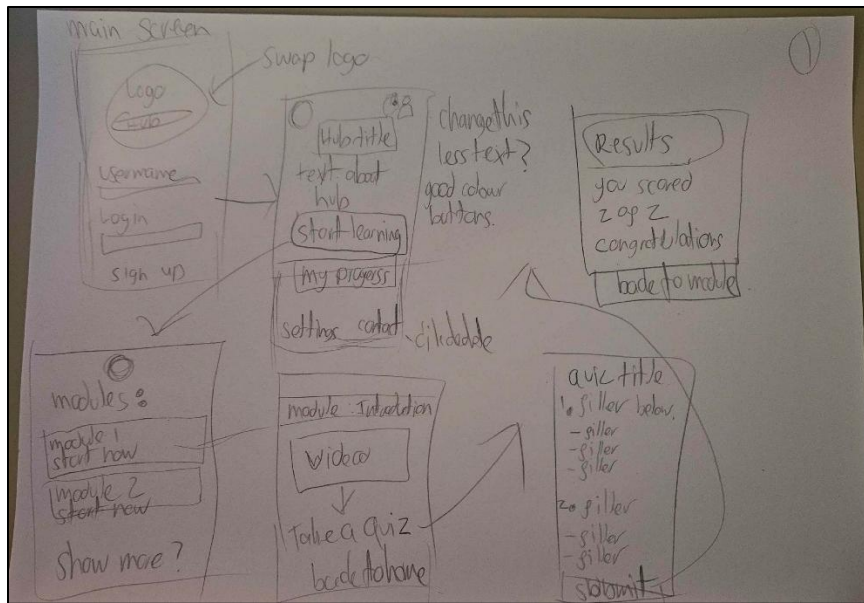


Figure 11 - Initial Sketches

As these sketches were hand drawn, they prioritise functionality over aesthetics. They provide a reasonably clear map to additional prototypes during the iteration process.

Wireframes:

Building on the initial sketches, wireframes were made to refine the layout and usability by:

- More consistent alignment and spacing for visual engagement and improvement.
- The initial placement of important elements such as buttons, text locations and navigation.
- Simplified navigation pathways which provide easy ways for users to locate content.

These wireframes were kept without colour as they focus on layout and functionality without the influence of aesthetic or colour. This stage played a critical role in identifying the main potential usability issues before the high-fidelity prototype.

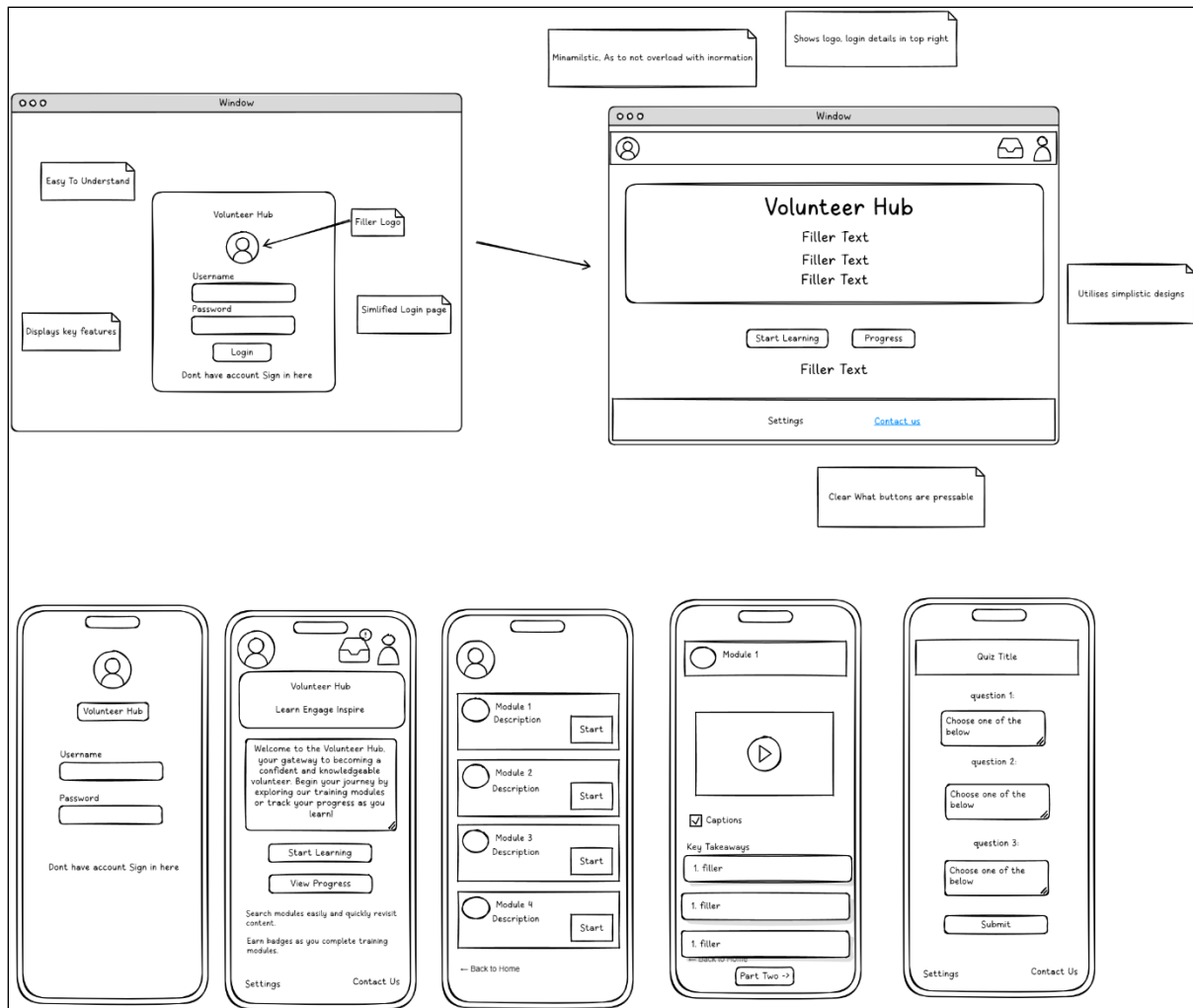


Figure 12 – Wireframes

Mid-Fidelity Prototype:

After the wireframes, I worked on creating a mid-fidelity prototype to test the functionality, refine UI and incorporate colour. This prototype focused on improving the usability and alignment of specific features just to gain a better understanding of how to progress.

Colour Scheme:

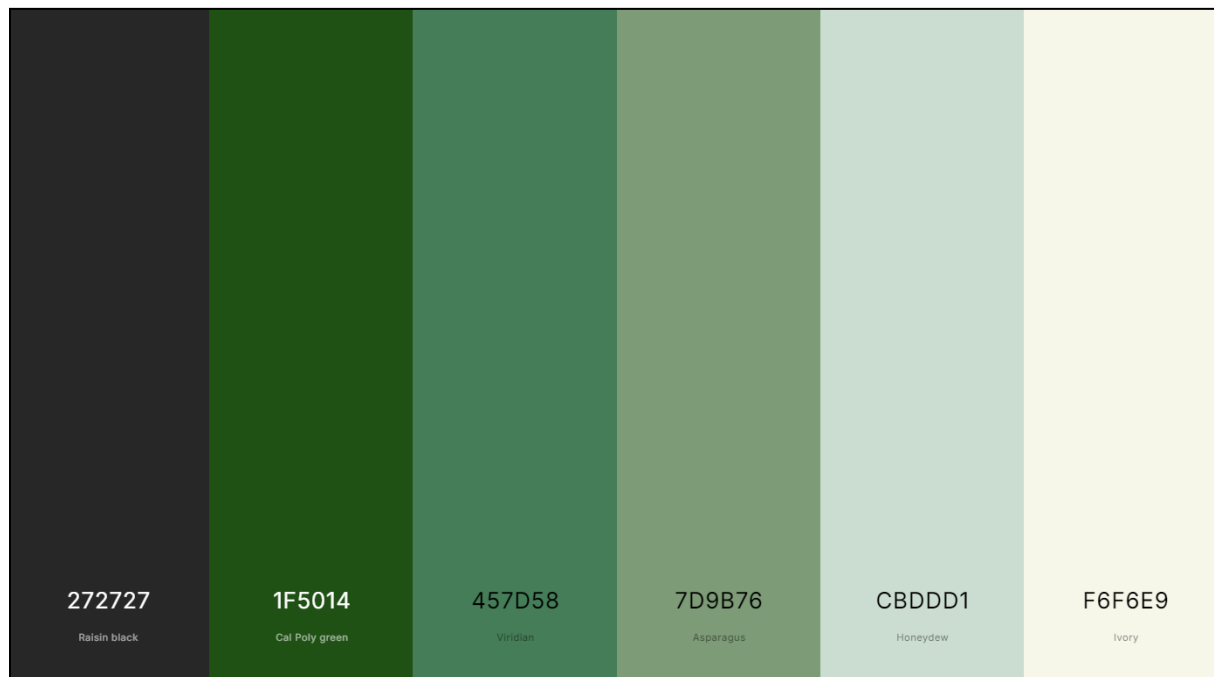


Figure 13 - Colour Scheme Used

The Mid-fi prototype begins to experiment with tonal colour palettes, allowing for a soft and visually appealing appearance.

Key Changes from wireframes:

- Improved navigation: Made sure there is a logical flow between the home page and module pages, with correct button placement.
- Placeholder elements: Introduced some placeholder features to imitate what functionality the app could provide.
- Content: Adjusted the spacing and placement of text and added a place for the logo to go across the pages which require it.
- Colour: Added in a slight variation of the colour scheme showing the green on the page to see how it looks visually.

The mid-fi prototype acted as a step in between the wireframes and high-fidelity used to validate the functionality and user flow with a more realistic tone to it. This stage helped to identify areas that needed to be changed before moving on to the high-fidelity designs.

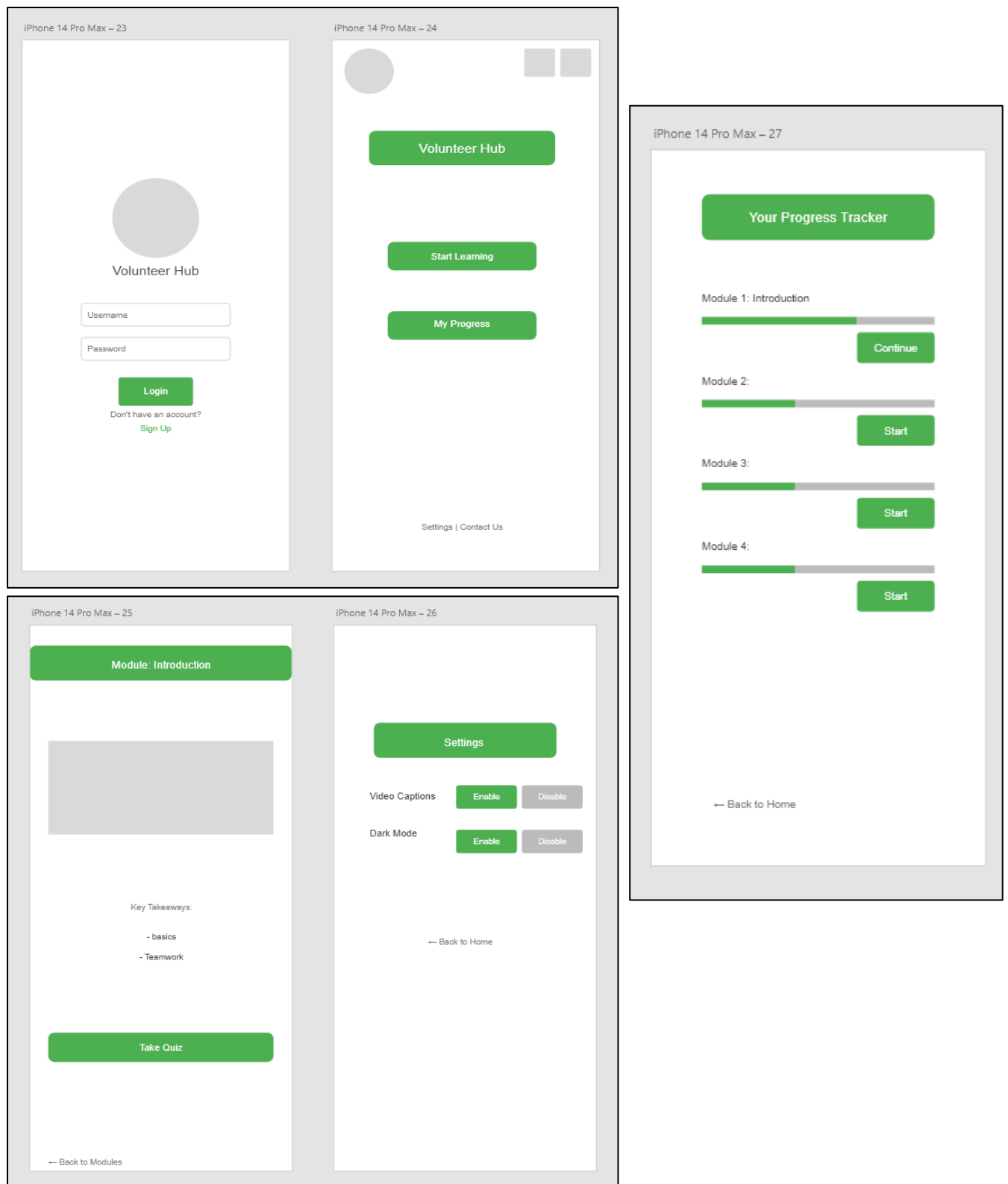


Figure 14 – Wireframes

High-Fidelity Prototype:

The High-Fidelity Prototype represents the polished version of the Volunteer Hub, where all design decisions, logos, interactivity and user feedback were incorporated. This section outlines the key details for the prototype.

Colour Palette:

The final Colour Palette utilises a range of green-based colours, it reflects Barley Hall's historical standings whilst maintaining a modern, clean and usable appearance. The colours were chosen specifically for their compatibility, making sure the text is readable and for the screens to be visually appealing.

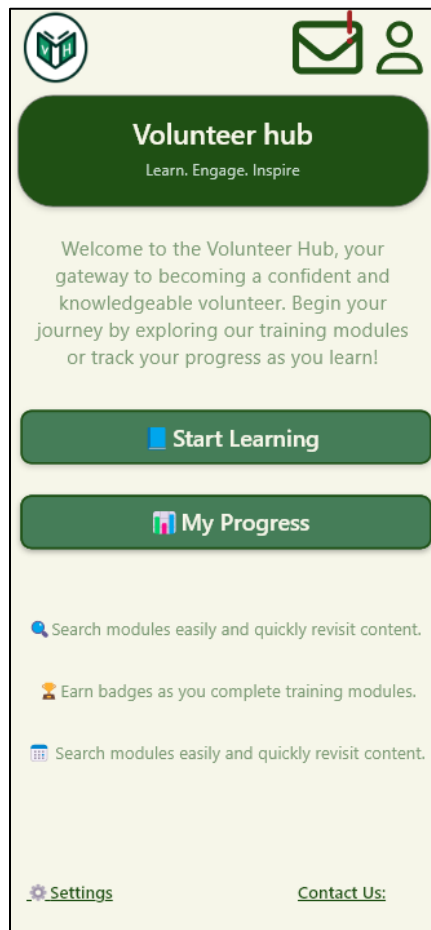


Figure 15 – Volunteer-Hub Home Screen

The use of white and green tones within the page makes sure that the interface remains visually appealing, whilst aligning with accessibility requirements by allowing for an acceptable amount of contrast between text and interactive elements.

Fonts:

During the design process, there were two main sans-serif fonts that stuck out to me, these being Segoe UI and Roboto. However, after careful consideration between the two, I opted to choose Segoe UI for its readability and clean sleek look.

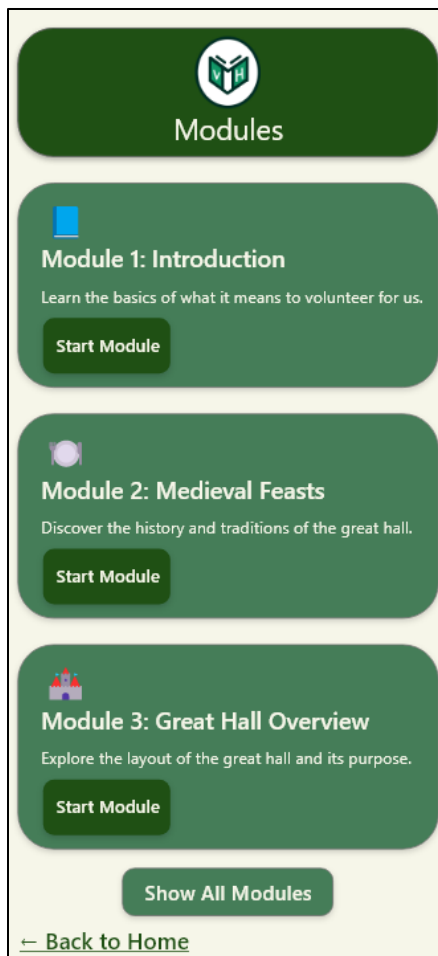


Figure 16 – Module, Segoe UI

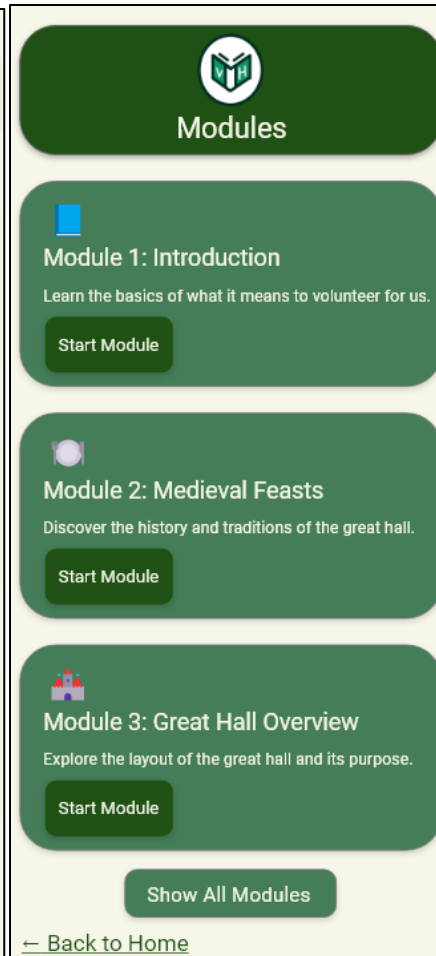


Figure 17 - Module Page, Roboto

As illustrated in figures 15 and 16, the designs appear visually similar, however, Segoe UI provides a much bolder appearance with headings. This emphasises the clarity and key points in the application along with how the distinction between headings provides additional button visibility.

Themes and Branding:

After implementing the chosen colour scheme into the prototype, I moved on to designing a logo that aligns with the app's purpose and aesthetic. The goal of this logo was to not only contrast the colour palette but also incorporate the idea of the app's uses into it.

Logo Design:

The logo was designed using Adobe-Photoshop, to be simple and impactful. It features a book with initials of the name to keep with the ideas of the app. The green tones correspond to the colour palette of the app, with the logo implemented it still appears distinctive and recognisable to a user.

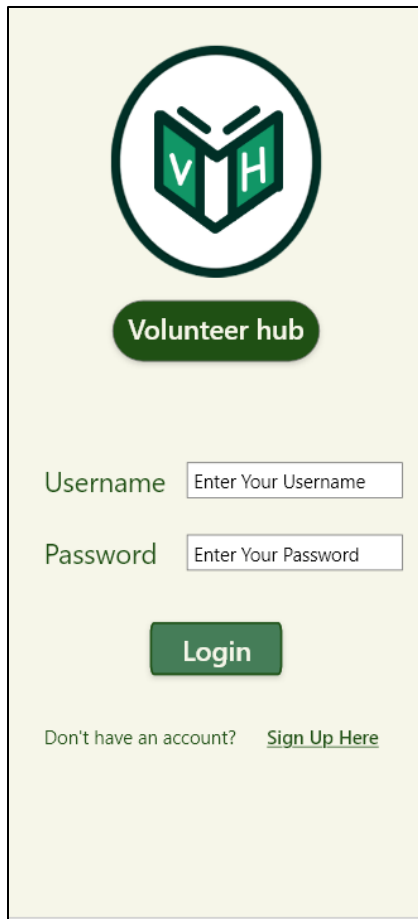


Figure 18 – Logo-Login page



Figure 19 – VH Logo

Interactive Features:

The application has features that enhance inclusivity and engagement:

1. **Interactive Elements:** Quizzes and progress trackers to help keep users engaged and give them instant feedback, inspired by Duolingo's approach.
2. **Accessibility Options:** Customisable text colours along with light and dark modes, that help to enhance readability and cater to preferences and lighting conditions. Additionally, captions are available for all videos.

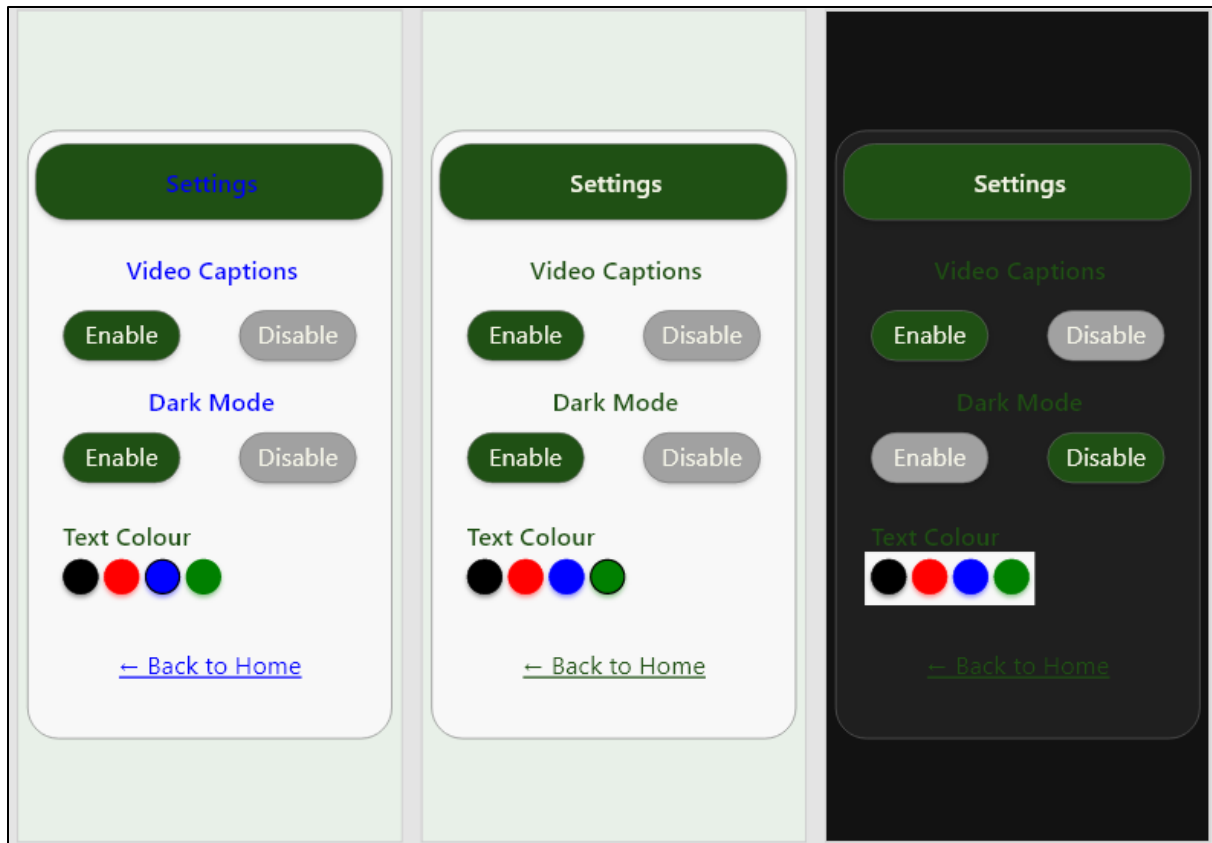


Figure 20 - Accessibility Settings

Usability Evaluation:

After creating the prototype, I conducted an expert evaluation on the prototype to assess it against Nielsen Heuristics as seen in Appendix E. Areas that the evaluation highlighted for improvement:

1. Adding error messages for improved user feedback.
2. Enhancing the overall navigation flow with clearer labelled buttons.
3. Refined settings page to include a preview for the changes.

While these insights are clear and can potentially be utilised on future prototypes, no changes were made in this version. These issues will guide further iterations of the application to potentially improve the user experience further down the line if development continues.

Critical Reflection:

The volunteer Hub prototype successfully addresses challenges regarding engagement and accessibility that were identified during research and development. Functional requirements such as progress tracking and having real time feedback were incorporated well into the design, doing so enhance the user experience and interaction. Non-functional requirements, which includes accessibility features ranging from customisable text colours to light/dark mode to ensure inclusivity.

However, there are some improvements needed. While navigation flow is effective, incorporating previews for changes made in settings would further improve user control.

Additionally, including error messages on the login page could prevent confusion during the user experience. Such enhancements would provide a more refined design based on the feedback from the heuristic evaluation.

If working with the design again, I would increase the range of accessibility options, this could be done by adding text-to-speech, along with alternative layouts and text sizes. Secondly, further testing across devices and refining the website version would help to ensure compatibility. This design process raises the importance of iterative testing to create an accessible and user-friendly application.

Word Count (2474)

Bibliography:

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Appendix A Ethics Checklist:



School of Arts and Creative Technologies

RESEARCH ETHICS CHECKLIST FOR TAUGHT STUDENTS

FOR PROJECTS USING DEPARTMENT LEVEL ETHICS PRE-APPROVAL

This checklist is to be used **ONLY** for research work by ACT students who wish to use the Department Level Ethics Pre-Approval to accommodate the ethical risks of their proposed research work.

Students must ensure that their proposed research work can be accommodated by the restrictions in this Checklist. If not, you will be unable to conduct the work without further Ethical scrutiny by the ACT Ethics Committee as the work is considered to have higher ethical risks. To apply for additional Ethics approval, you must submit the Research Ethics Clearance Form for review by the ACT Ethics Committee. However, please note that some modules DO NOT permit students to submit individual Ethics applications.

All students who use the Department Level Ethics Pre-Approval for their work must complete this checklist and include the following as Appendices to their assessment reports:

- This completed Checklist;
- Example Participant Information Sheets and Participant Informed Consent Forms, if appropriate;

Please note that if this Ethics Checklist is associated with an assessment that has an **anonymous submission** (i.e. if you are using your Exam Number, Y123456 for submission) you **MUST** redact your name and any other information that would identify you as an individual from the appendices before submission.

Please note that your assessment markers will compare the submitted assessment work to this Ethics Checklist, Information Sheets and Consent Forms to ensure compliance.

You are also required to conduct this research work in compliance with the General Data Protection Regulation (GDPR). Information on how to ensure compliance is available on the ACT Ethics VLE site.

Before completing this Research Ethics Checklist for Taught Students, please consult the ACT Ethics VLE Site for guidance and further information.

SECTION 1: STUDENT AND PROJECT DETAILS

Box 1A: Student Details ALL students must complete this box	
Student Name OR Exam Number for Anonymous Submission	Y3935239
Degree Title	BSc Interactive Media
Stage (e.g. 2 nd year Undergraduate)	2 nd year Undergraduate
Role in Project (e.g. Team Leader)	Primary Investigator

Box 1B: Project Details ALL students must complete this box	
Module Title and Module Code	User Experience Design TFT000361
Project Supervisor Name and Email Address	Sanjit Samaddar sanjit.samaddar@york.ac.uk

Box 1C: Project Details ALL students must complete this box	
Project Title	Summative Assessment UXD
Project Submission Date	16 th Jan 2025

Please complete Section 2: Research Ethics Concerns

SECTION 2: RESEARCH ETHICS CONCERNS

Box 2A: Checklist of Research Ethics Questions		YES	NO
ALL students must complete this box			
1	Will the project involve conducting work that would typically require NHS Ethics approval? That is, will you be working with any of the following as participants, if recruited specifically due to their involvement with the NHS: - Patients and Users of the NHS, - Relatives or carers of patients and users of the NHS, - NHS staff? OR will you be using or accessing NHS premises or facilities as part of the work?		X
2	Will the project involve conducting work that would typically require His Majesty's Prison & Probation Service Ethics approval? That is, will you be conducting research with staff and/or offenders in prison establishments, National Probation Service (NPS)/Community Rehabilitation Companies (CRC) regions or within His Majesty's Prison and Probation Service (HMPPS) Headquarters? OR will you be conducting research on HMPPS premises?		X
3	Will you be working with vulnerable participants (e.g. those under 18, people with learning disabilities, people with mental impairment due to health or lifestyle, people who are terminally ill or recently bereaved etc.)? Note that if you are unsure whether someone you would like to work with could be considered vulnerable under the circumstances, you are required to discuss your concerns with the module leader, your supervisor and/or Ethics Chair. It is generally expected that any student working with vulnerable groups would submit the longer Research Ethics Clearance form.		X
4	Will you be identifying any of the participants in your outputs?		X
5	Will you be discussing sensitive or potentially upsetting or distressing topics with participants?		X

Box 2A: Checklist of Research Ethics Questions		YES	NO
ALL students must complete this box			
6	Is it reasonably foreseeable that the work could involve causing physical or emotional distress to participants or researchers?		x
7	Is it reasonably foreseeable that the participants could disclose or discuss participation in illegal activities (e.g. drug use)?		x
8	Is it reasonably foreseeable that the participants could disclose confidential or sensitive information (e.g. financial data, sensitive organisational data)?		x
9	Will you be deliberately misleading the participants in any way?		x
10	Will you be filming or making recordings of people without their knowledge and consent (e.g. covert filming of people in non-public places)?		x
11	Will you be researching or discussing issues relating to terrorism or political extremism as part of your work?		x
12	Will you be collecting online data that has been generated by human participants (e.g. social media data) from closed, restricted forums (i.e. from closed communities or those that require approved membership to view, e.g. restricted Facebook groups)?		x
13	Will you be identifying anyone from online data that has been generated by human participants (e.g. social media data) from either open or closed forums (i.e. by including information that could make the individual identifiable, such as direct quotes or usernames)?		x
14	Could the work involve potentially damaging property and/or the natural environment?		x
15	Will the work involve animals?		x
16	Is it reasonably foreseeable that the work could result in any anticipated university/institutional risk (e.g. adverse publicity or financial loss)?		x
17	Will you be compensating participants with financial inducements OTHER THAN reasonable incentives (e.g. chocolate, cake) for the inconvenience?		x

Box 2A: Checklist of Research Ethics Questions		YES	NO
ALL students must complete this box			
18	Will you be paying participant expenses?		x
19	Will you be conducting any of the work for this project OUTSIDE of the UK?		x

If you have answered “YES” to ANY of the questions in Box 2A: Checklist of Research Ethics Questions:

The Department Level Ethics Pre-Approval together with this Research Ethics Checklist for Taught Students MAY be insufficient to accommodate the ethical risks of your proposed work.

Some lower-risk ethical issues can be accommodated without further Ethical scrutiny provided that you agree to follow a process that is considered appropriate. These situations and processes are described on the ACT Ethics VLE site.

IF there is a suitable procedure to manage this ethics issue, please complete Box 2B to provide further details of how you intend to manage the ethical issues associated with your proposed work in consultation with either the module convenor or your assessment supervisor.

Box 2B: Further Details Complete this box if you answered “Yes” to any question in Box 2A AND there is an identified procedure to manage the ethical risks in this situation.
Provide details of the nature of the ethical risks that you identified by answering YES to questions in Box 2A and describe the process that you will follow to minimise the risks. Please note that if you answered YES to Question 17 and/or 18: Will you be paying your participants? If research participants are to receive any payments, reimbursement of expenses, or any other incentives or benefits for taking part in your research, please give details, indicating what and how much they will receive and the basis on which this was decided. Payment must follow the University’s policy. Please note that the policy includes maximum limits and researchers should note that they may pay less than these, as appropriate.

Alternatively, the associated risks of your proposed work may be sufficiently low risk that an appropriate approach can be agreed with the ACT Ethics chair without requiring submission of the ACT Research Ethics Clearance form. Your supervisor/module convenor may contact the ACT Ethics on your behalf to identify an agreed process on a case-by-case basis. If your supervisor has discussed your proposed work with the ACT Ethics Chair via email, please complete Box 2C: Case-By-Case Agreed Process.

Box 2C: Case-By-Case Agreed Process			
Students must complete this box IF they have answered “YES” to any questions in Box 2A AND there is no identified procedure to manage the ethical risks of the proposed work. Note, that most students will need to submit a ACT Research Ethics Clearance form and this case-by-case process approach is ONLY suitable for work that can be considered low risk.		YES	NO
1	Has your project supervisor or module convenor discussed the proposed work and associated ethical risks with the ACT Ethics Chair via email?		
2	Was your project supervisor or module convenor able to agree a process to manage the low risks associated with your proposed work?		
IF YES to BOTH questions please provide further details of the anticipated risks of the proposed work and the process that was agreed with the ACT Ethics chair. Please include dates of the email correspondence AND the name and email address of supervisor/module convenor involved.			

If the associated risks of your proposed work cannot be accommodated through an identified procedure or through a case-by-case agreed process then, provided the module convenor permits it, you will need to submit an application to the ACT Ethics Committee for review using the Research Ethics Clearance Form. But, please note that some modules do NOT permit students to submit individual applications to the Ethics Committee.

Please complete Section 3: Data Protection

SECTION 3: DATA PROTECTION

In order to comply with the General Data Protection Regulation (GDPR) you **MUST** adhere to the data usage and storage principles described in Box 3A: Checklist of Data Protection Questions.

Box 3A: Checklist of Data Protection Questions		YES	NO
ALL students must complete this box			
1	Will you guarantee that you will inform all people whose personal and/or special category data that you are using: • What data you will be collecting and why; • How you will be storing the data; • The legal basis under which you are storing the data; • When/if/how the data will be destroyed? Please note that using a GDPR Compliant Project Information Sheet will ensure you meet these requirements.	x	
2	Will you guarantee that IF you use a portable device to collect electronic data you will transfer that data to your University Google Drive account or University Filestore as soon as possible after the interview AND delete it from your personal device?	x	
3	Will you guarantee that the data will ONLY be accessible to the project team AND that IF the project team extends beyond the University of York that you have consulted the University's IP and Legal team to ensure appropriate data protection safeguards are in place?	x	
4	Will you guarantee that you will ONLY use Google Forms OR Qualtrics to host online surveys that collect personal and/or special category data?	x	
5	Will you guarantee that you are collecting the MINIMUM amount of data necessary for the intended project?	x	
6	Will you guarantee that IF you are storing or accessing data from OUTSIDE the European Economic Area (EEA) you will access the data through your University of York Google Account connected to the University of York Virtual Private Network (VPN)?	x	

Box 3A: Checklist of Data Protection Questions		YES	NO
ALL students must complete this box			
7	Will you guarantee to destroy all physical AND electronic data EITHER after your module marks have been ratified by the Board of Examiners OR 10 years after last requested access?	x	
8	IF storing electronic data for 10 years after last requested access, will you guarantee to EITHER use a University Google Drive account OR an approved data repository service to store the data?	x	
9	Have you screened your project against the Data Protection Impact Assessment (DPIA) screening questions AND if required conducted a DPIA and submitted a copy to the Data Protection Officer for review?	x	
10	If capturing audio, will you use an encrypted device for recording (e.g. an Apple iOS device or encrypted voice recorder)?	x	
11	Where data is held on an encrypted portable device (e.g. laptop, tablet) will you back it up to a University approved service as soon as possible and perform periodic checks to ensure data is being backed up appropriately?	x	
12	Will you ensure confidential information is encrypted before it is transmitted/shared digitally?	x	
13	Please detail what other protections will be used for digital data (e.g. access/edit permissions, procedural safeguards re downloads/making copies, remote access via VDS/VPN, 2 factor authentication)?		
	Give answer here: Data protections listed above along with additional password protection.		
14	Confirm you have reviewed the user commitments under the Policy for the safe use of University information on devices . Detail anything in the user commitments that will pose a challenge in carrying out your proposed research.	x	

Box 3A: Checklist of Data Protection Questions		YES	NO
ALL students must complete this box			
	Give answer to the second element of question 14 here: N/A		
15	Will you ensure that personal data or confidential data held on paper are stored in a lockable filing cabinet or container, and/or a locked room in secure premises?	x	
16	How will devices be physically protected (e.g. in transit, when not in use or left unattended)?		
	Give answer here: Devices will be stored in a safe carrier in a locked room when not in use.		
17	Will you ensure the device(s), accounts, or storage area(s) used to store data are not accessible to any unauthorised parties?	x	

Box 3B: Checklist of Data Retention Questions		YES	NO
ALL applicants must complete this box			
1	How long will you keep personal data after the project, in what form and for what reason? https://www.york.ac.uk/library/info-for/researchers/data/sharing/		
	Give answer here: Until marks for the module are ratified in July 2025		
2	When will the research data be destroyed, by whom, and how? https://www.york.ac.uk/library/info-for/researchers/data/sharing/#tab-2		
	Give answer here: By the main investigator (me), around the ratification at July 2025, (BoE ratification panel)		

Box 3B: Checklist of Data Retention Questions		YES	NO
ALL applicants must complete this box			
3	Will any personal or special category data (i.e. data that is not truly and irrevocably anonymised) be deposited in an archive or external repository? https://www.york.ac.uk/library/info-for/researchers/data/sharing/#tab-4 Move on to Question 5 if you have answered ‘no’		N/A
4	Where personal data are to be transferred to an archive or repository, please confirm that your Information Sheet will: (i) cover the archiving and reuse of any personal data and participant agreement to this, (ii) explain to participants the benefits of any data sharing, (iii) indicate where possible whether research data will be deposited in a named, recognised repository (e.g. Archaeology Data Service, UK Data Service, York’s institutional repository, etc.)		N/A
5	Where you have special category personal data or criminal data, will it be destroyed in line with an agreed retention policy (set by the University, the data provider, or approved by this ethics committee)? You may enter ‘N/A’ if you are not collecting this type of data		N/A

Before submission of your assessment work, you must complete Section 4: Student Agreement. This completed Checklist must be included as an Appendix to your assessment report, together with examples of your Project Information Sheets and Informed Consent Forms.

SECTION 4: STUDENT AGREEMENT

Box 4A: Student Agreement		YES	NO	N/A
ALL students must complete this box.				
1	I confirm that the work conducted for the above project has met all the statements as expressed in this Research Ethics Checklist.	x		
2	I confirm that the work conducted for the above project was guided by the University's ethical rules and regulations.	x		
3	I have included example Project Information Sheets and Informed Consent Forms as Appendices to my report, if applicable.	x		
4	I confirm that I have adhered to the ACT requirements for storing personal and special category data compliant with the General Data Protection Regulation (GDPR). Note that GDPR compliance guidance can be found on the ACT Ethics VLE site.	x		
5	I confirm that, if applicable, all payments made to personnel in relation to this project have complied with financial regulations.			x
Student Name (or Exam Number for Anonymous Submission)		Y3935239		
Date		15/01/2025		

Box 4B: Supervisor Agreement		YES	NO
1	I have reviewed this Research Ethics Checklist.		
2	I have reviewed the Project Information Sheets and Informed Consent Forms, as applicable.		
Supervisor Name			

Box 4B: Supervisor Agreement		YES	NO
Signed			
Date			

Appendix B: Copyright Appendix:

Asset Description	Image (if Applicable)	Source	Location on Prototype	License
Icons used throughout the prototype, Mailbox, login, exclamation.		https://fontawesome.com	Main home page	https://fontawesome.com/v4/license/

Appendix C: User Questionnaire:

UXD Questionnaire



Collapse section

B *I* U ↺ ✕

This online survey is part of a student project for a User Experience Design module at University of York, UK. The survey aims to gather information on User Design. The results of this survey will help me to design a digital media prototype. The estimated completion time for the survey is [7 minutes].

The survey is conducted by Ivo Nugent (pxq501@york.ac.uk)
Supervised By: Sanjit Samaddar (sanjit.samaddar@york.ac.uk)

All data will be gathered and reported anonymously.

On what basis will you process my data?

Under the General Data Protection Regulation (GDPR), the University has to identify a legal basis for processing personal data and, where appropriate, an additional condition for processing special category data.

For further information and definitions of personal and special category data, please go to:

- <https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/key-definitions/>
- <https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/lawful-basis-for-processing/special-category-data/>

Special category data is personal data which the GDPR says is more sensitive, and so needs more protection. In this study, we will not be collecting any special category data.

Research activities will only be undertaken where ethical approval has been obtained, where there is a clear public interest and where appropriate safeguards have been put in place to protect data.

In line with ethical expectations and in order to comply with common law duty of confidentiality, we will seek your consent to participate where appropriate. This consent will not, however, be our legal basis for processing your data under the GDPR.

All data collected will be destroyed after the final marks for the academic year have been ratified.

By completing this survey you are providing consent to participate in this study.

Section 3 of 5

Your Experience with Technology



Description (optional)

What is your age range? *

- 1. 18 - 24
- 2. 25 - 44
- 3. 45 - 64
- 4. 65+

On a scale of 1 to 5 how comfortable are you with using digital devices? *

	1	2	3	4	5	
Not Comfortable	☐	☐	☐	☐	☐	Very comfortable

Have you utilised or worked with any online training resources before? *

- ☐ Yes
- ☐ No

...

Where are you most likely to use a training resource? *

- ☐ At home on desktop/laptop
- ☐ While out and about on phone
- ☐ Other...

How often do you revisit training materials after using them? *
(E.g. Revision materials for Studies or Workplace Training Packs)

- ☐ Never
- ☐ Occasionally
- ☐ Often

Out of the options below, which one's would you prefer learning through? *

- ☐ Text
- ☐ Images
- ☐ Videos
- ☐ Interactive Activities



What challenges do you face when using training resources? *

- ☐ Too much text
- ☐ Navigation Issues
- ☐ Hard to Understand instructions
- ☐ Not Interactive
- ☐ Other...

What type of learning feedback helps you best? *

- ☐ Instant Feedback
- ☐ Quizzes
- ☐ Visual cues
- ☐ Detailed Explanations
- ☐ Other...

How important is it for you to be able to track learning progress (e.g. progress bar, through test results) *

- ☐ Not Important
- ☐ Somewhat Important
- ☐ Very Important

What features do you think would be most helpful in making training resources be more engaging for you? ★

- ☐ Progress tracking
- ☐ Accessible Features (e.g. captions, adjustable text size)
- ☐ Mini-quizzes
- ☐ Other...

Section 5 of 5

Share Your Ideas ✕ ⋮

Description (optional)

Can you describe a memorable or highly effective learning experience that you have had in the past?

What made the learning experience engaging and useful?

How did it support your learning?

Long-answer text

If you haven't had a good learning experience, could you share why you think that it was not effective or enjoyable to you?

Long-answer text

If you could design your own ideal training resource for a historical site, what features would it include and why?

Long-answer text

Appendix D: Questionnaire Response Data / Analysis:

General overview of responses:

1. Overview Of Demographics:

Age range:

- many participants are in the 18-24 age group, indicating a much younger and more digital based audience. This age group is associated with having a much greater exposure to technology, which suggests being able to understand training platforms easier.

Comfort with digital devices:

- All respondents rated their comfort as “5” on a 1 to 5 scale. This shows that most if not all users are proficient in navigating and utilizing digital resources for a variety of purposes.

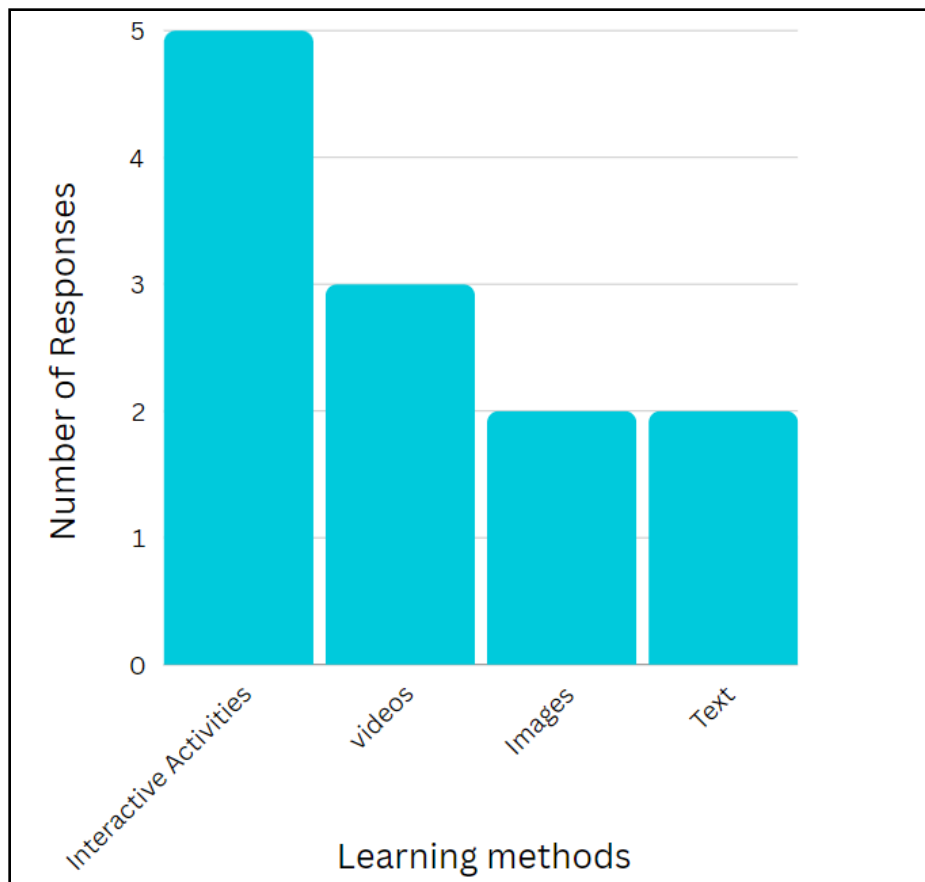
Previous experience with online training resources:

- All users reported having prior experience in utilizing online training resources.

2. Preferred learning methods:

Learning formats:

- Based on the responses the popular formats included:
 - Interactive activities
 - Videos
 - Images
- Text methods of learning were chosen less. This shows that there is a need for engaging content that does not use as much text.



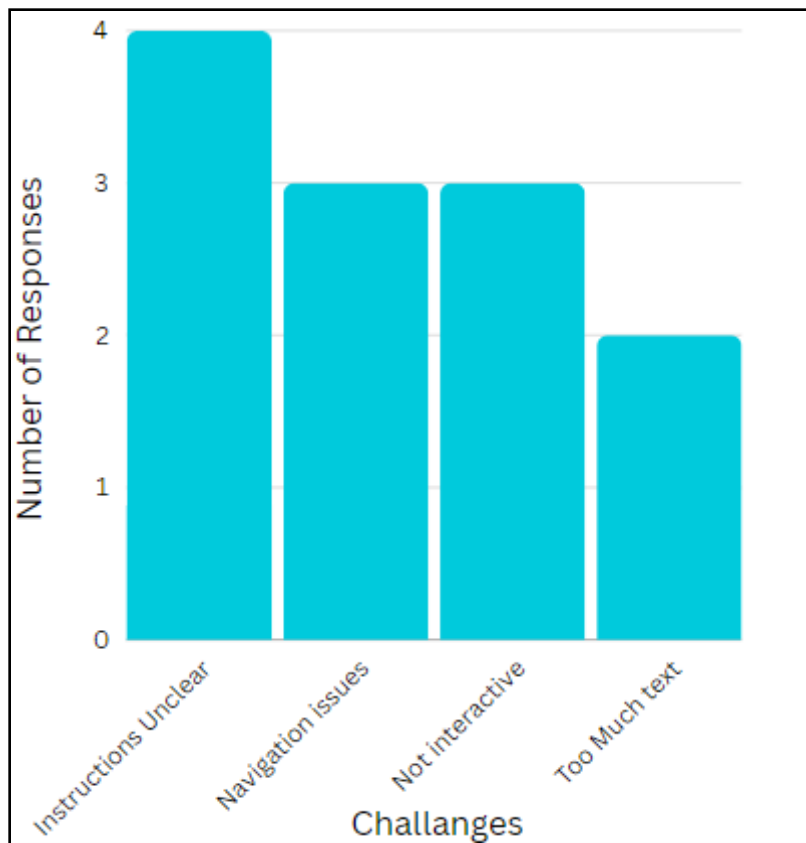
Learning preferences:

- Users expressed a preference for more dynamic, hands on learning aside to static, text heavy methods. This highlights a need for more participatory content to enhance retention.

3. Challenges with Existing Training Resources:

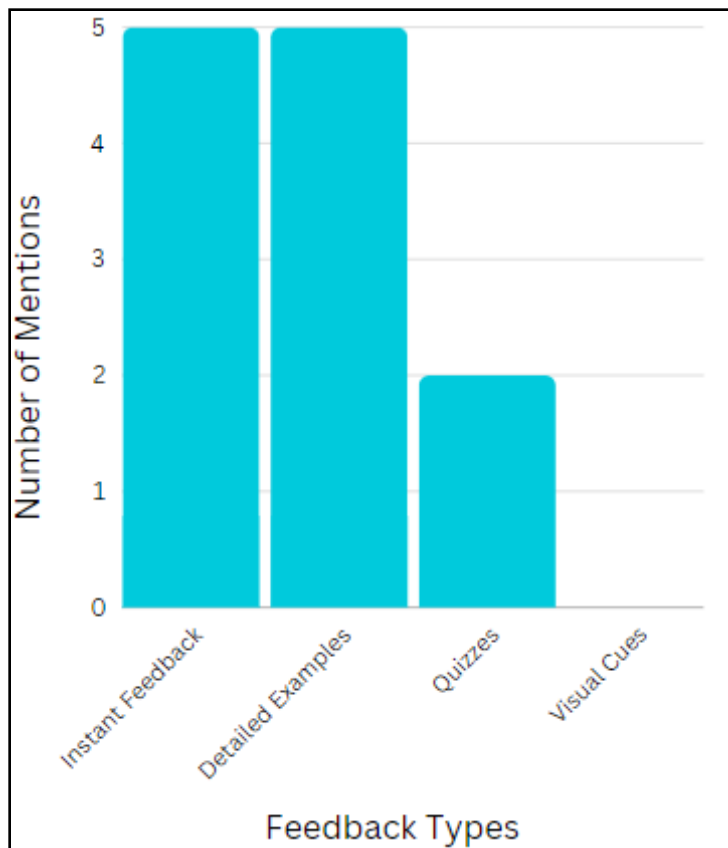
Key challenges identified:

- Too much text
- Navigation issues
- Lack of interactivity
- Difficulty understanding instructions



4. Feedback and Progress Tracking:

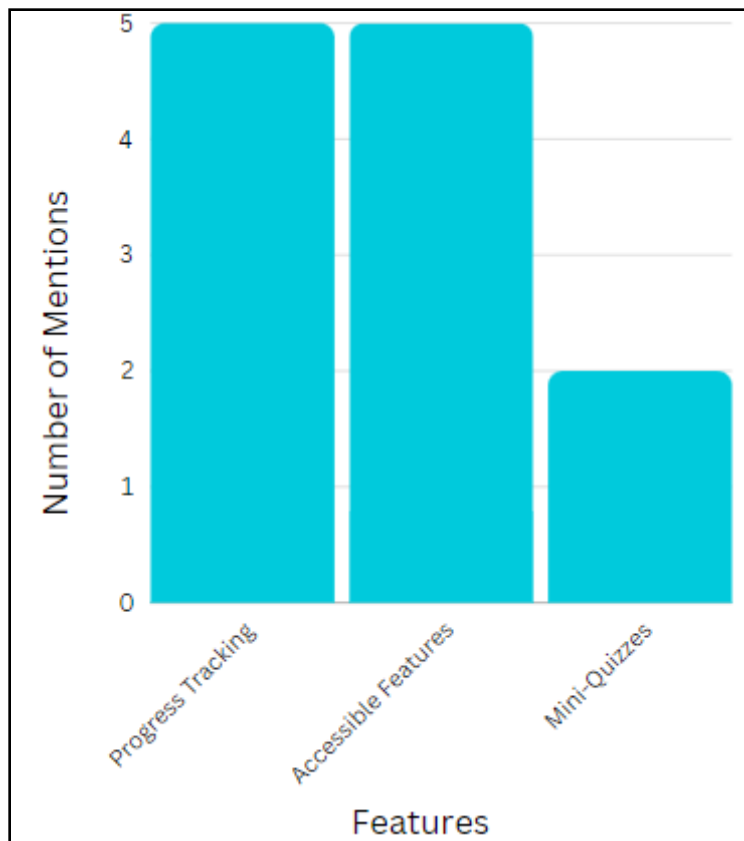
- Preferred feedback types:
 - Instant feedback
 - Detailed explanations
 - Quizzes



- Importance of progress tracking:
 - Many rated progress tracking as somewhat important, with one rating it as highly important. This shows that it is a relevant factor to be considered when designing the application so that it allows for progress tracking / achievement indicators.

5. Features to Enhance Engagement:

- Users identified key features to make the training resources more engaging:
 - Progress tracking: Was the most chosen feature to be included, as they are helpful for understanding the learning and knowing where people are up to with their knowledge.
 - Mini quizzes: Second most chosen feature, valued at helping engagement, and being able to provide feedback instantly.
 - Accessibility features: Not Chosen as much amongst the respondents, however this may be a result of the age range/demographic of users that provided a response.



- These features can be used to provide a training resource that would be effective in maintaining user engagement and keeping their knowledge interactive.

6. Ideas from Effective Learning Experiences:

- Memorable elements:
 - Interactive platforms such as Quizlet and gamified learning tools, and their ability to make learning engaging through different methods.
 - Hands on activities providing active participation and practical learning were impactful on respondents learning.
 - Real world applications, where learning experiences were conjoined with relatable or easy to understand scenarios were seen as highly effective in helping to put concepts together.
- Characteristics of Experiences:
 - Interactivity and personalization was valued highly among the answers as it allowed for them to engage directly with material in ways that they could tailor.
 - Clear goals: The ability too have defined objectives within an application made the learning process more structured and easy to monitor.
 - Resources providing supportive feedback both immediate and constructive is a key factor in helping the users understand the topics and help continuous improvement.

7. Design Suggestions/ideas:

- Gamification aspects, including minigames or quizzes.
- Accessibility options that can cater and change to accommodate user needs.

Simplified navigation to minimize user frustration and help them to navigate and learn more effectively.

Appendix E: Heuristic Evaluation

Nielsons Heuristic	Issue Description	Severity (0-4)	Possible Solution
1. Visibility of System Status	Lack of feedback between transitions, e.g. login screen to home screen.	3	Incorporate loading indicators or progress bars to make the system give more feedback and be seamless.
2. Match between system and the real world	Some icons don't include labels, could be unclear for a first time user.	2	Add descriptive labels or interactive features for icons to clarify their use.
3. User control and freedom	Users cant preview changes to see how captions affect interface	3	Add a preview mode in settings that show what captions look like on the screen.
4. Consistency and standards	Bad styling in the video captions and dark mode settings. Can lead to confusion.	2	Standardize buttons throughout the entire interface.
5. Error prevention	Users can toggle settings without a confirmation saying they want them or not	3	Add a confirmation or a short delay for changing the features.
6. Recognition rather than recall	Navigation to with the back to home links on the page are labelled well but may be unclear to some users	1	Make the link more visually distinct or add a button style to it.
7. Flexibility and efficiency of use	There are no easy shortcuts incorporated for experienced users to streamline the usability process	2	Implement some form of keyboard shortcut that allows a user to access modules easier or toggle settings say (ctrl + d) to enable and disable dark mode.
8. Aesthetic and minimalist design	The text colours and spacing are okay, however it may feel crowded and lacks	2	Add more padding between elements. Helps to improve

	white space on certain pages.		usability and readability.
9. Help users recognise diagnose and recover from errors	No error messages when user enters the wrong login details into the system.	4	Display clear error messages such as incorrect password or username with a suggestion on what to do.
10. Help and documentation	There is no FAQ or help section for the settings which show previews or describe what each feature does.	2	Add a link to a description page that explains the settings and their functionality.