Artificial Intelligence tools were used during the development of this report and prototype to assist with generating initial text drafts and placeholder content. All AI-generated material was thoroughly reviewed, checked for accuracy, and rewritten or corrected where necessary to ensure truthfulness, relevance, and compliance with the coursework requirements.

Part 1

Stakeholder Identification

Independent Games Publisher (Client)

This stakeholder initiates and funds the platform. They define the business goals, set deliverables, and enforce accessibility standards. Their priorities shape the scope and direction of the project.

End User – Customer

The primary consumer of the platform. Their needs and preferences directly influence design decisions, usability, and feature prioritisation.

Subcategories of Customer:

Children Customers

Children require age-appropriate content, simplified interfaces, and parental controls. Their inclusion ensures the platform complies with legal and ethical standards for minors.

Adult Customers

Adults may seek more complex gameplay, advanced features, and broader content. Their preferences help define the platform's general usability and content diversity.

Parent / Guardian / Carer Customers

These users evaluate platform suitability for their dependents. Their feedback is critical for implementing safety features, content filters, and support tools.

Disabled Players

The core target audience. Their accessibility needs directly drive functional and non-functional requirements. Platform success depends on meeting their usability expectations.

Accessibility Experts / Consultants

They provide validation against WCAG and other standards. Their input ensures compliance, reduces legal risk, and improves real-world usability for disabled users.

Game Developers and Publishers (Third-party)

They supply content for the platform. Their cooperation is needed to provide accessibility metadata, as well as other metadata about the games. Should the platform become increasingly popular, publishers may wish to push for games to be featured for their accessibility, which could provide a source of revenue if they were charged.

Android or Apple Store

These are the distribution channels for games. Their policies affect integration, linking, and monetisation. As with Publishers, collaboration with them may provide an opportunity for revenue, as well as improve visibility of the platform.

Marketing Manager

They are responsible for promoting the platform. Their input affects branding, increasing the user base, and featured game selection based on market trends.

Platform Administrators / Moderators

They maintain platform integrity. They manage user interactions, enforce community guidelines, and ensure the platform remains inclusive and safe.

Persona

Figure 1. Persona of Alex Morgan

Functional Requirements

F1 - User Registration and Log in (MVP)

We want users to be able to register and create a profile. Logged-in users will have access to a personalised landing page showing their saved games and preferences. Unregistered users will see a default landing page with general content.

This enables personalised experiences for users, especially disabled players who rely on saved accessibility settings. Supports user profile data (D2) and accessibility customisation (F4).

F2 - Browse and search games (MVP)

Users must be able to browse and search for games using filters such as genre, accessibility features, and popularity. The landing page should include sections for favourites, watchlist, Wishlist, AA featured games, and newly added titles. Users should also be able to rate and review games, with a focus on accessibility feedback.
This is the core discovery feature. Filters by accessibility are essential for disabled users to find suitable games. Supports game metadata repository (D1).

F3 - User Interaction (MVP)

We want users to be able to rate and review games, create Wishlist, and favourites. Users should also be able to rate and review games, as well as follow links to the respective store pages for each game (Google Play, App Store).
Reviews provide community-driven insights, especially on accessibility. Wishlist and favourites improve usability and engagement and can be used to track popularity and offer suggestions to users.

F4 - Accessibility customisation

Users must be able to customise accessibility settings to suit their needs. This includes options for text size, font type, background colour, quick disability profile selection, and language preferences.

- Variable/Customisable accessibility features
    - Different languages integration
    - Quick select for disability
    - Advanced features
        - Background colours
        - Accessible Fonts
        - Text Size

This directly addresses the needs of disabled users (primary stakeholder). Supports WCAG compliance (NF1) and improves usability (NF2).

F5 – User Community

The platform should include a community area where users can engage in discussions, share experiences, and contribute to the accessibility ecosystem through reviews and dialogue.
This encourages peer support and feedback. Accessibility discussions and tagging help surface real-world usability issues and improve discoverability.

F5.1 – Forum

The platform needs an age-appropriate forum where users can socialise and discuss games. Boards should be moderated and include age-restricted areas to ensure safe and relevant conversations for different user groups. Topics may include game recommendations, accessibility tips, and general gaming culture.

F5.2 – Rating and Review (MVP)

Each game should support community-driven ratings and reviews. Users must be able to leave structured feedback, including accessibility-specific comments (e.g., support for screen readers, remappable controls). Ratings should be aggregated and filterable by accessibility relevance.

F5.3 – Accessibility Discussions

A dedicated section should allow users to discuss accessibility features, share personal experiences, and suggest improvements. This area supports peer learning and helps surface real-world usability insights.

F5.4 – User Contributions and Tags (MVP)

Users should be able to tag games with accessibility features based on their experience. These tags contribute to the discoverability of games and help build a crowdsourced accessibility index.

Non-Functional Requirements

NF1 - WCAG Accessible (MVP)

We want the platform to be fully usable by users with hearing and dexterity impairments. This includes support for voice control, visual equivalents for audio content (such as captions and visual indicators), and alternative input methods like switch devices or keyboard navigation.
This ensures platform usability for users with hearing, visual, and motor impairments. Required for legal compliance and stakeholder expectations.

NF2 - Usability (MVP)

The platform must have an intuitive and user-friendly layout, informed by user feedback and usability testing. Navigation should be clear and consistent across all pages.
An intuitive layout and consistent navigation will reduce cognitive load and improve accessibility for users with attention or memory impairments.

NF3 - Robust design

All error pages, such as 404 pages, must be accessible and provide clear navigation options. These pages should be compatible with screen readers and voice navigation.

Accessible error pages will prevent user frustration and support screen reader compatibility, improving overall reliability.

NF4 - Performance

The platform must deliver fast response times and minimal latency during browsing, searching, and interaction.
Fast response times are critical for maintaining engagement, especially for users relying on assistive technologies.

NF5 - Maintainable

The system architecture must support future updates and expansion. Code should be modular and well-documented to facilitate ongoing development and maintenance.
A modular architecture will support future updates and scalability, aligning with the client's goals for long-term platform viability.

Data Requirements

D1: Game Metadata Repository (MVP)

We need a structured database containing game metadata such as title, genre, accessibility features, developer, ratings, reviews, and media assets (images and trailers).

D2: User Profile Data (MVP)

The system must store user data including username, accessibility preferences, saved games (watchlist/favourites), and interaction history.

D3: Accessibility Feedback Logs

We require a mechanism to collect and store user-submitted feedback on accessibility features, including ratings and comments linked to specific impairments or assistive technologies.

D4: System Logs

The system must maintain logs of errors and chatbot interactions to support debugging and iterative improvement. Usage analytics should be collected to optimise landing page content and recommendation algorithms.

Part 2

Please download the prototype here:

https://whuz9o.axshare.com/?g=4

The Axure save file can also be found here:
https://github.com/Archerm5/gameable/tree/main

F1 - User Registration and Log in (MVP)

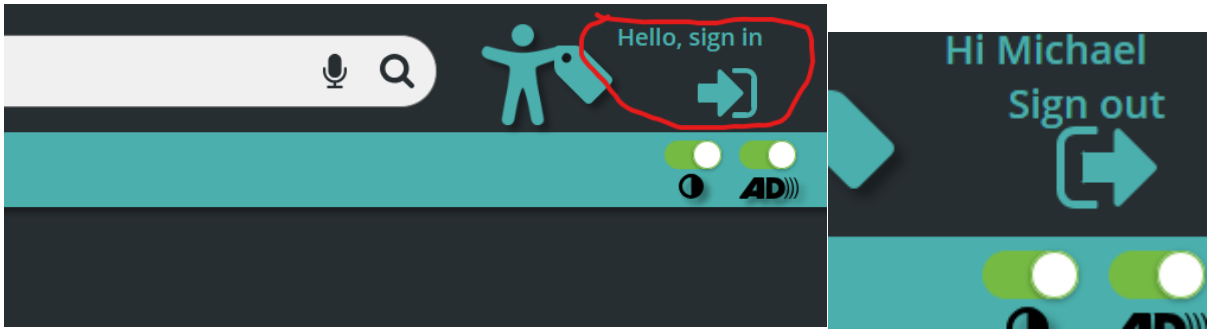

Figure 2, Sign in button at top right of screen, with industry standard sign in icon with sign out in the same place.

The choice for a sign-in and out button placed in the top-right corner follows standard UI conventions for visibility and accessibility. It was consistent across all pages.

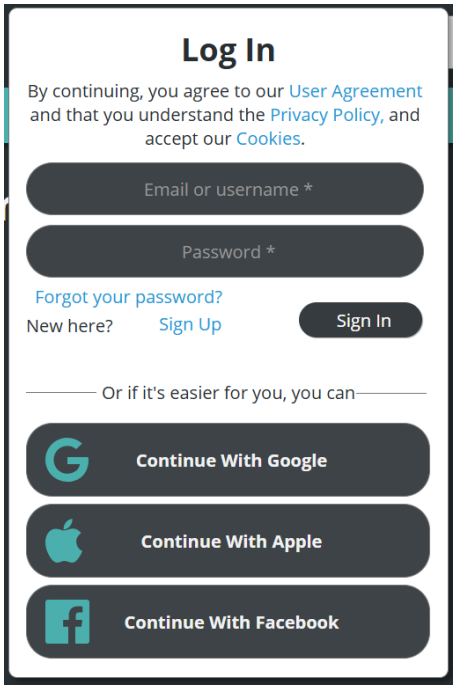

Figure 3, Sign in widget, with standard SSO options with common brands.

Sign-in/out sits in the top-right on every page, following common patterns for quick findability and consistency. The design of the sign-in widget was informed by established patterns from widely used platforms such as Reddit and X. The widget clearly separates email/password from SSO with a short explainer, so users can choose a familiar path without overload (Koffka, 1935).

Using well-known identity providers reduces typing and supports users with dexterity or memory challenges (WAI, 2025).

Legal copy is kept minimal with links to full GDPR details. These full pages were not included in the prototype as it was out of scope, but it was important enough to include the placeholders.

Form fields are labelled with required indicators, and password input supports hidden text for privacy. Together these choices reduce input effort, improve accessibility, and align with recognised best-practice guidance (WAI, 2025).

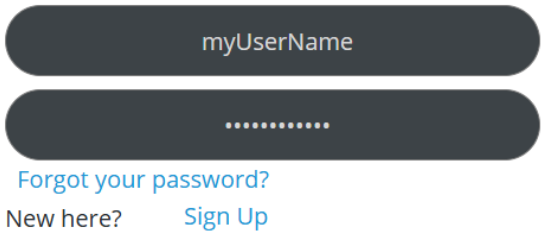

Figure 4, Standard sign in password secrecy

F2 - Browse and search games (MVP)

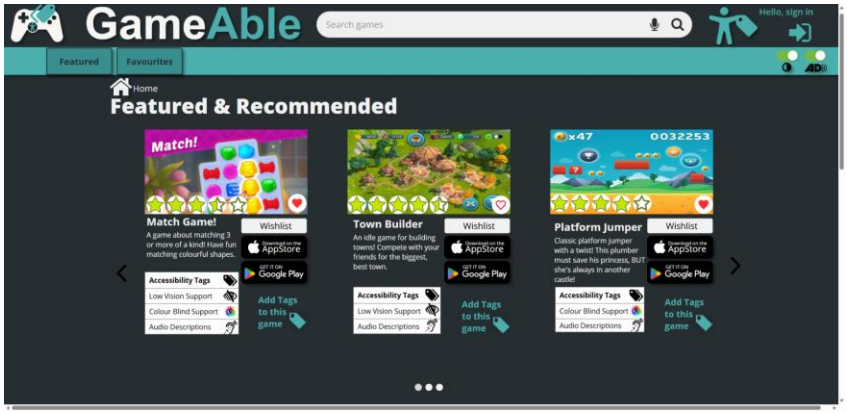

Figure 5. Featured & Recommended Carousel

The carousel is sized to avoid layout shift and meet reflow (WAI, 2025).

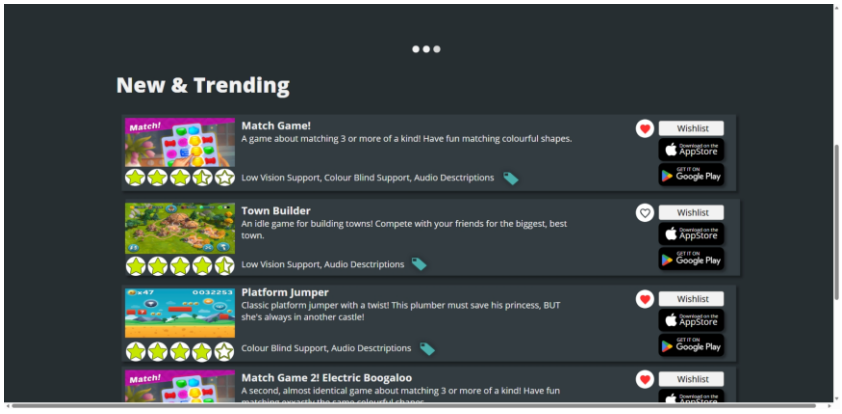

Figure 6. New & Trending list below the carousel.

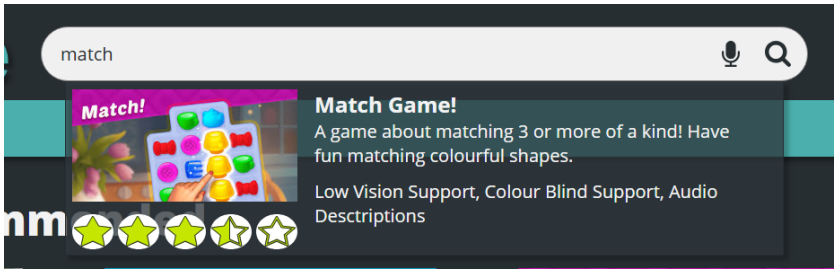

Figure 7. Search Bar with the word "match" typed, showing a dynamic response with a corresponding game.

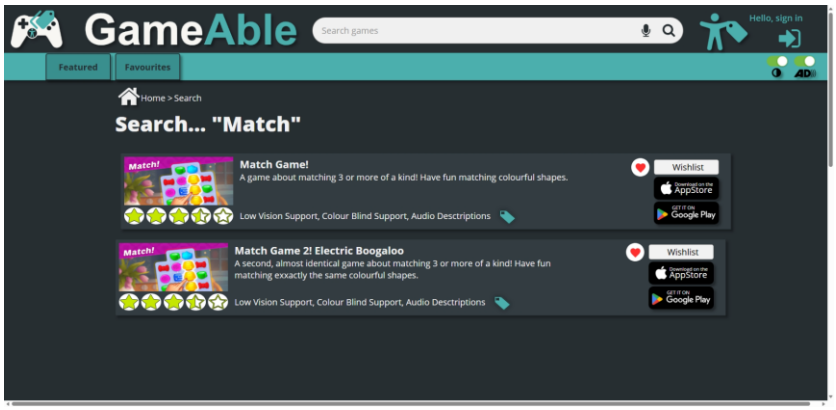

Figure 8. When completing a search, users are taken to a list of results for that search.

F3 - User Interaction (MVP)

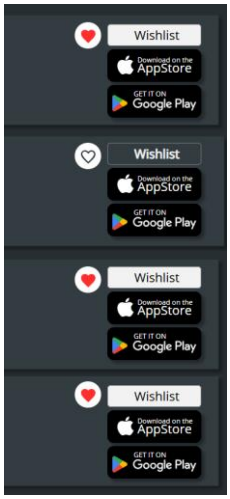

Figure 9. Games in a list showing favourite and Wishlist buttons

Figure 10. 5 Steps of favourite button: Unselected, unselected + mouse over, button down, selected + mouseover, selected

Figure 11. 2 Steps of Wishlist button, showing unselected, then selected.

Figures 9–11 show favourites/Wishlist controls with clear multi-state feedback (unselected, hover, pressed, selected) so users immediately see outcomes, aligning with Nielsen's "Visibility of System Status" and reducing cognitive load, especially for memory/attention impairments (Nielsen, 2024).

While it wasn't possible to implement these features in the Axure Rapid prototype for every button on the website due to time constraints, this would absolutely be a feature that would be required for an MVP.

Controls are accessible by design, buttons meet 44×44 px (SC 2.5.5) (WAI, 2025), icons/text meet non-text contrast (SC 1.4.11) (WAI, 2025), and all actions are keyboard-operable with visible focus (SC 2.4.7) (WAI, 2025). Standard icons (heart for favourites, stars for rating) aid instant recognition.

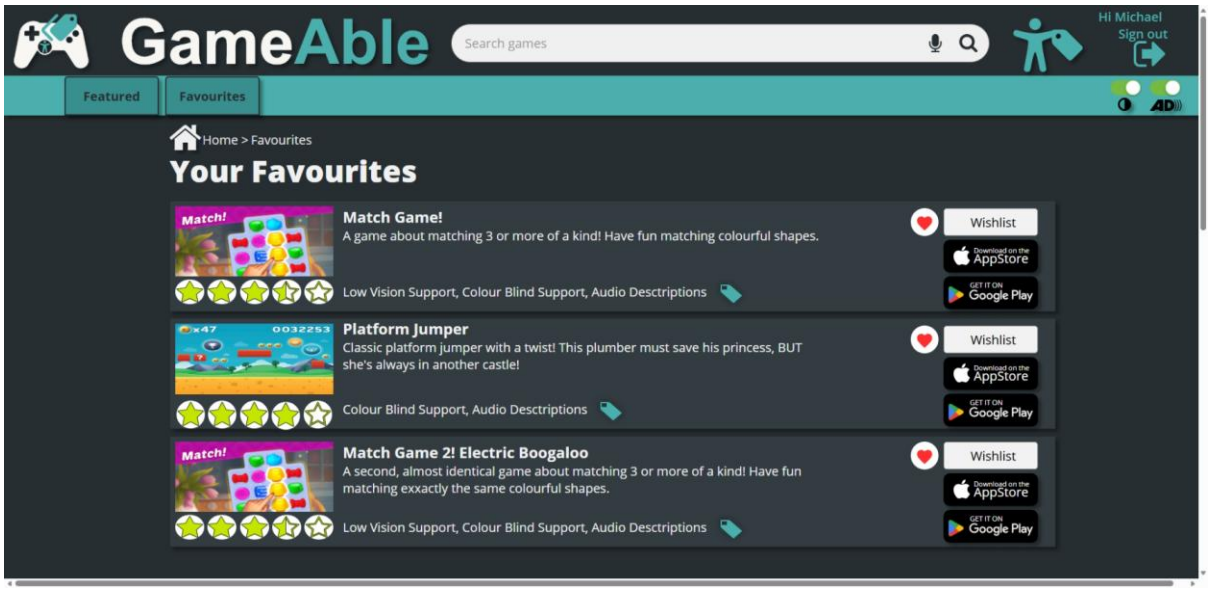

Figure 12. When logged in, the user favourites page is visible for quick access to saved titles.

F5.2 – Rating and Review (MVP)

Figure 13. Games show a clear star rating below their picture.

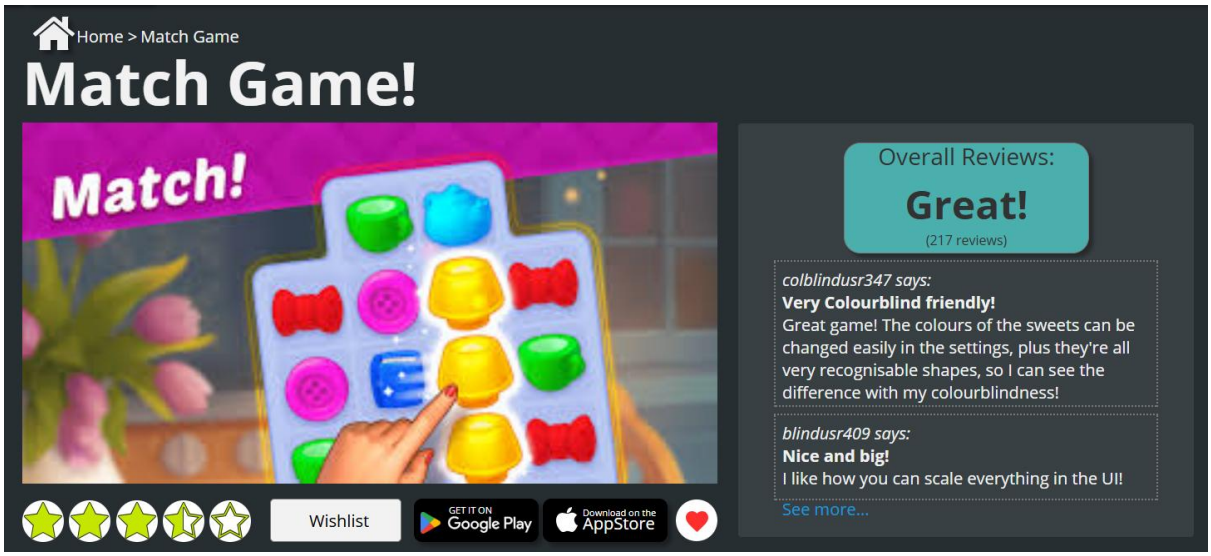

Figure 14. On the right, a summary of reviews and some relevant reviews from moderators.

Figure 15. Review game option at the bottom of the game page.

Figure 16. All user reviews are visible in a scrollable list at the bottom of the game details page.

Users can rate and review games. Star ratings under each thumbnail provide at-a-glance status per Nielsen's "Visibility of System Status" (Nielsen, 2024).

The game view shows a summary of user ratings plus selected moderator-approved reviews to build trust and reduce misinformation; curation also lowers cognitive load for users who struggle with large volumes of unmoderated content. A "Review Game" action at the bottom invites user contributions.

All interactive elements (stars, submit buttons) are keyboard-operable with visible focus per SC 2.4.7 (WAI, 2025), and star icons use high-contrast colours and distinct shapes to meet SC 1.4.11 (WAI, 2025) for low-vision support.

The review form offers mic input, descriptive labels, and helpful hint text to align with SC 3.3.2 (WAI, 2025) and reduce input errors, improving usability for motor, visual, and cognitive impairments while keeping interactions familiar.

F5.4 – User Contributions and Tags (MVP)

Figure 17. A list of moderated tags on a game, as well as a button at the bottom right to add tags to the game.

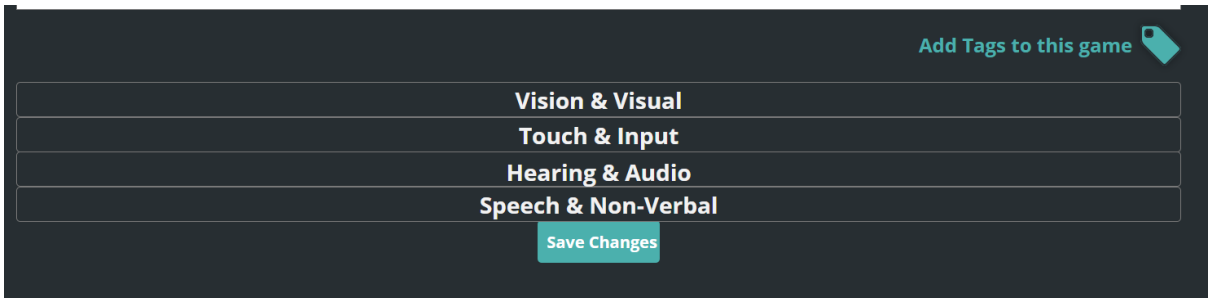

Figure 18. The accordion list of tags, grouped by accessibility type.

Tagging drives community engagement toward a crowdsourced accessibility database. Categories sit in an accordion for quick scan/expand, applying Gestalt grouping (Koffka, 1935). Users select tags via checkboxes and commit with “Save Changes.”

The accordion matches the personal tag list, and uses clear, consistent labelling for predictable navigation (WAI, 2025).

Figure 19. Accessibility Logo combined with a Tag logo makes a recognisable Icon to access the user's tagged accessibility features.

Signed-in users create custom tags to personalise content and pre-fill search filters. A search bar surfaces tags and supports voice input.

Known Issue: A known Axure bug affects dynamic height shrinkage. This is a prototype limitation rather than a design flaw. The intended behaviour is for all accordion sections to return to their collapsed state after saving, as when closed individually. In a production environment, this would be addressed through proper state management and CSS transitions.

Figure 20. The user's own Accessibility Tags saved to their account.

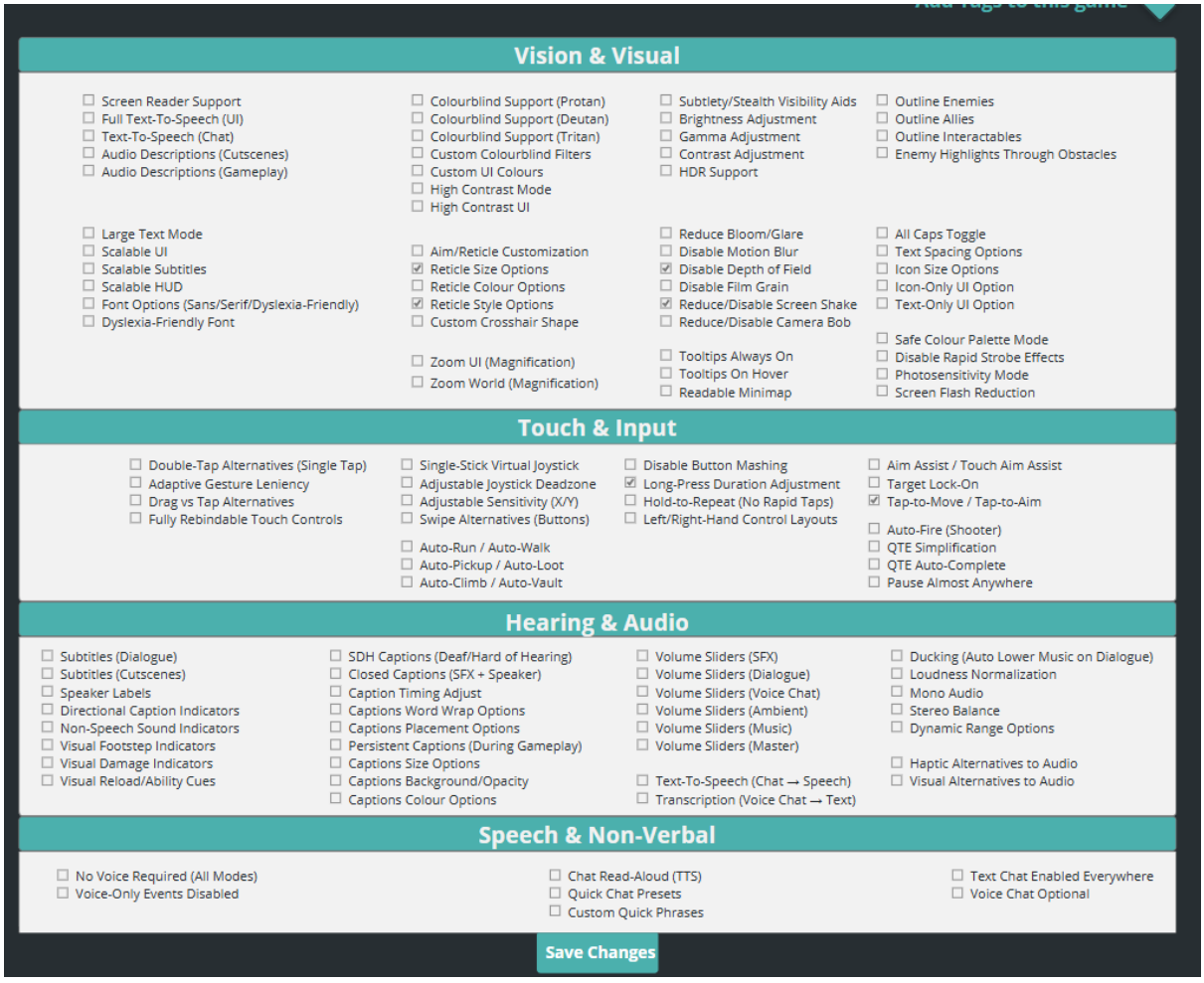

Figure 21. All items in the list expanded, allowing for users to check boxes for which tags they would like to add.

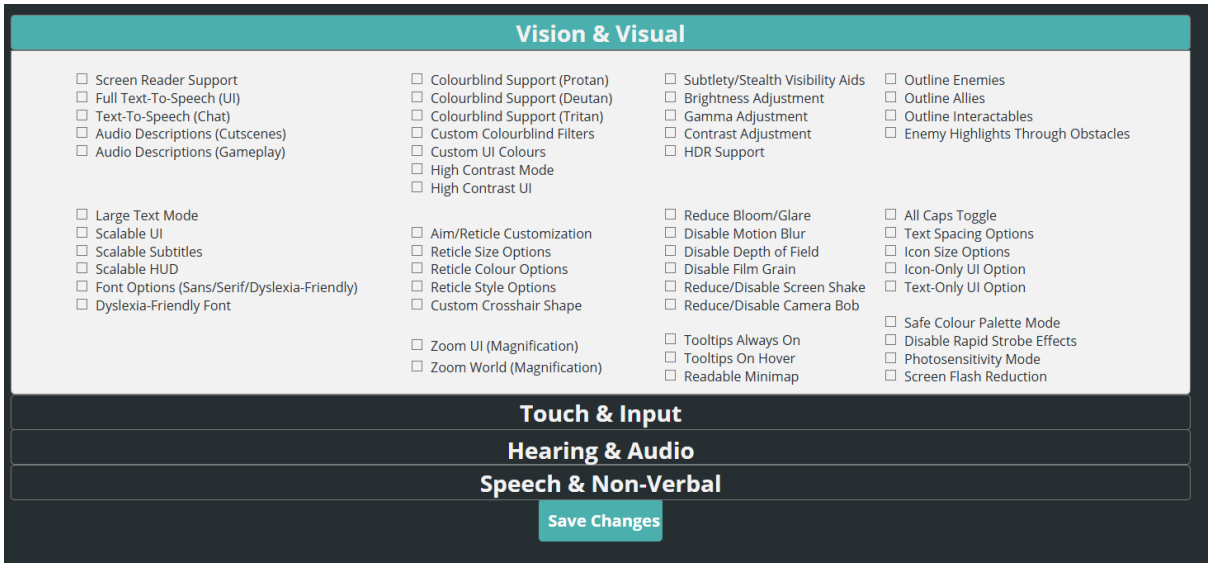

Figure 22. Correct behaviour of accordion shown as items in the list are unselected and the groups shrink back to their correct place.

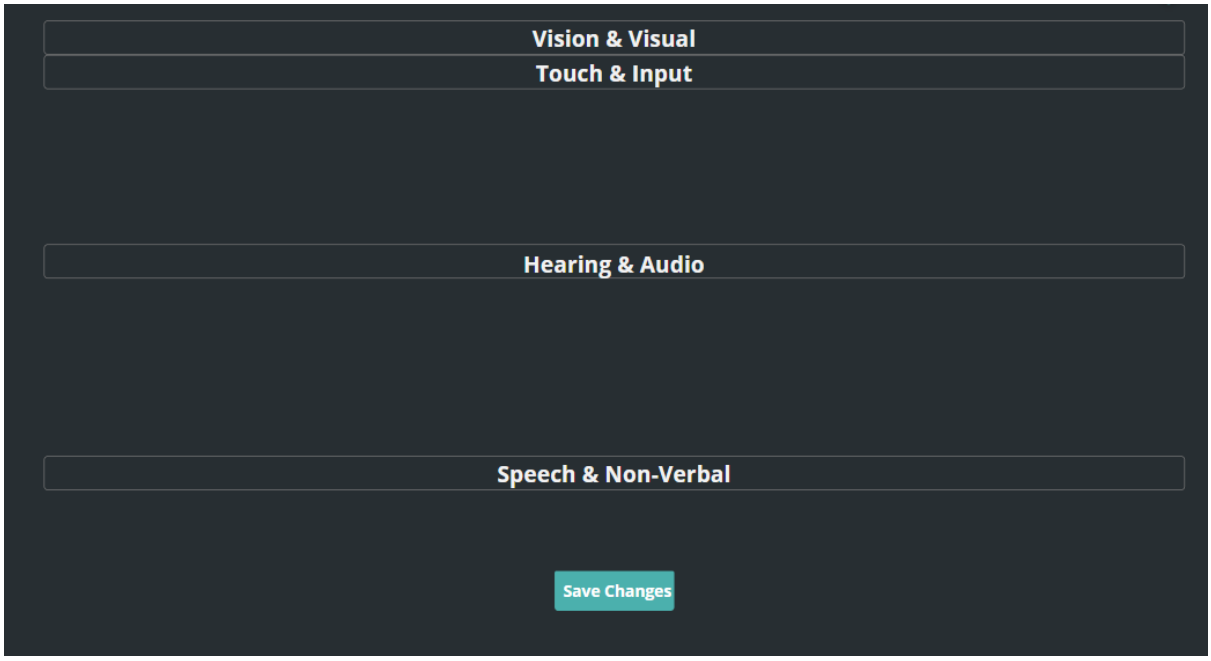

Figure 23. [AZURE BUG]. When the "Save Changes" button is pressed, all items in the list should shrink back to their correct size, as if being selected manually. Azure seems to have a bug where dynamic heights do not shrink correctly.

NF1 - WCAG Accessible (MVP)

The prototype was designed with WCAG 2.1 AA compliance as a core non-functional requirement. Accessibility considerations were integrated across all features to ensure the platform is usable by individuals with visual, auditory, motor, and cognitive impairments. This section provides a summary of how the design addresses the four WCAG principles.

Perceivable:

Figure 24. On the Nav Bar, a button to toggle dark/light mode, and Audio Descriptions

The task bar includes slider buttons for quick and easy toggling of dark/light mode, as well as Audio Descriptions. These were not possible to implement in the Axure Prototype, but would be possible in the production environment, so the buttons are included as placeholders.

High-contrast colour themes were selected to support readability. There are 3 main colour themes for the website.

Main: #272e32	Secondary: #f2f2f2	Accent: #4bb0ad

The secondary and accent have a very high contrast ratio with the main (12.42 & 5.32) (Siege Media, 2025).

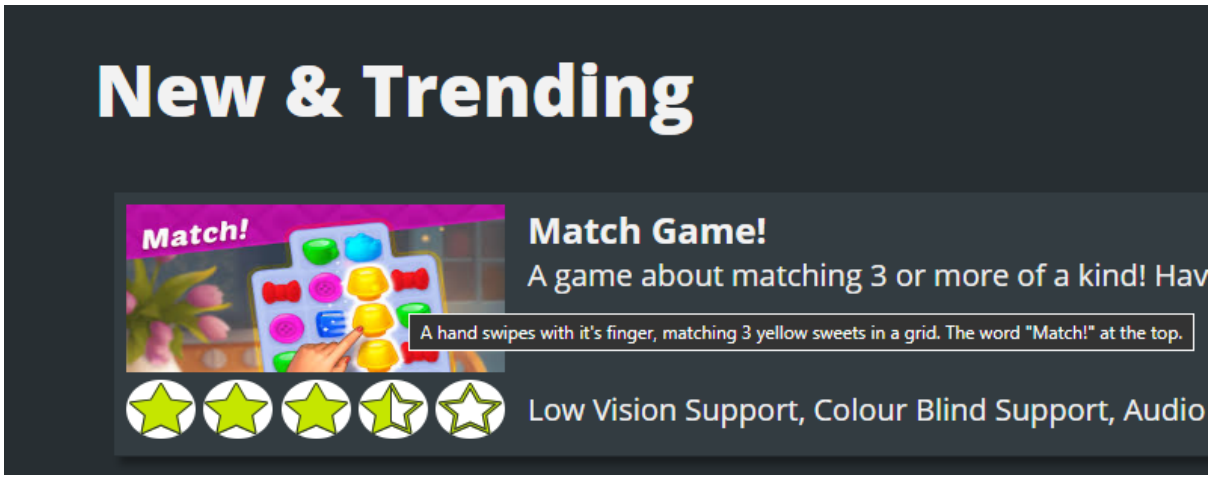

Figure 25. Alt text showing on mouseover for images.

Figure 26. Decorative image in 404 page marked with "" to avoid clutter.

All meaningful images include descriptive alt text, while decorative images are marked with empty alt=“” attributes to prevent screen reader clutter.

Operable:

Figure 27. The microphone symbol in the search bar allows users to search via speech to text.

Interactive elements such as buttons, links, and form fields are designed for keyboard operability with logical tab order and visible focus indicators. Speech-to-text functionality was implemented in the search bar to assist users with motor impairments and low vision. Touch targets for interactive controls meet recommended sizing guidelines to reduce input errors.

Axure does not allow implementation of keyboard navigation or tab order, but these were considered during the design phase. In a production environment, logical tab order will be achieved by structuring the DOM to match the visual layout and applying tabindex attributes only where necessary, in line with WCAG SC 2.4.3 (Focus Order) (WAI, 2025), and Technique G59 (WAI, 2025).

NF2 - Usability (MVP)

Understandable:

A fixed Nav Bar and Footer was consistent across all pages, as well as keeping buttons and features like the star rating and favourite/store page links the same on all pages. All

pages on the site had a breadcrumb trail at the top left, which is a design standard to assist with navigation and understanding.

These measures reduce cognitive load and align with WCAG SC 3.3.2 (Labels or Instructions) (WAI, 2025).

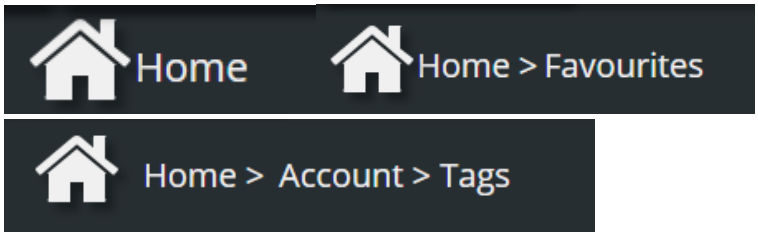

Figure 28. Breadcrumbs on all pages to assist with navigation and help with understandability.

NF3 – Robustness

The prototype includes custom error pages (e.g., 404 page) designed to maintain accessibility and usability standards. Clear navigation options were provided to help users return to the main content, reducing frustration and supporting recovery from errors. This demonstrates attention to edge cases and ensures the platform remains inclusive even when unexpected issues occur.

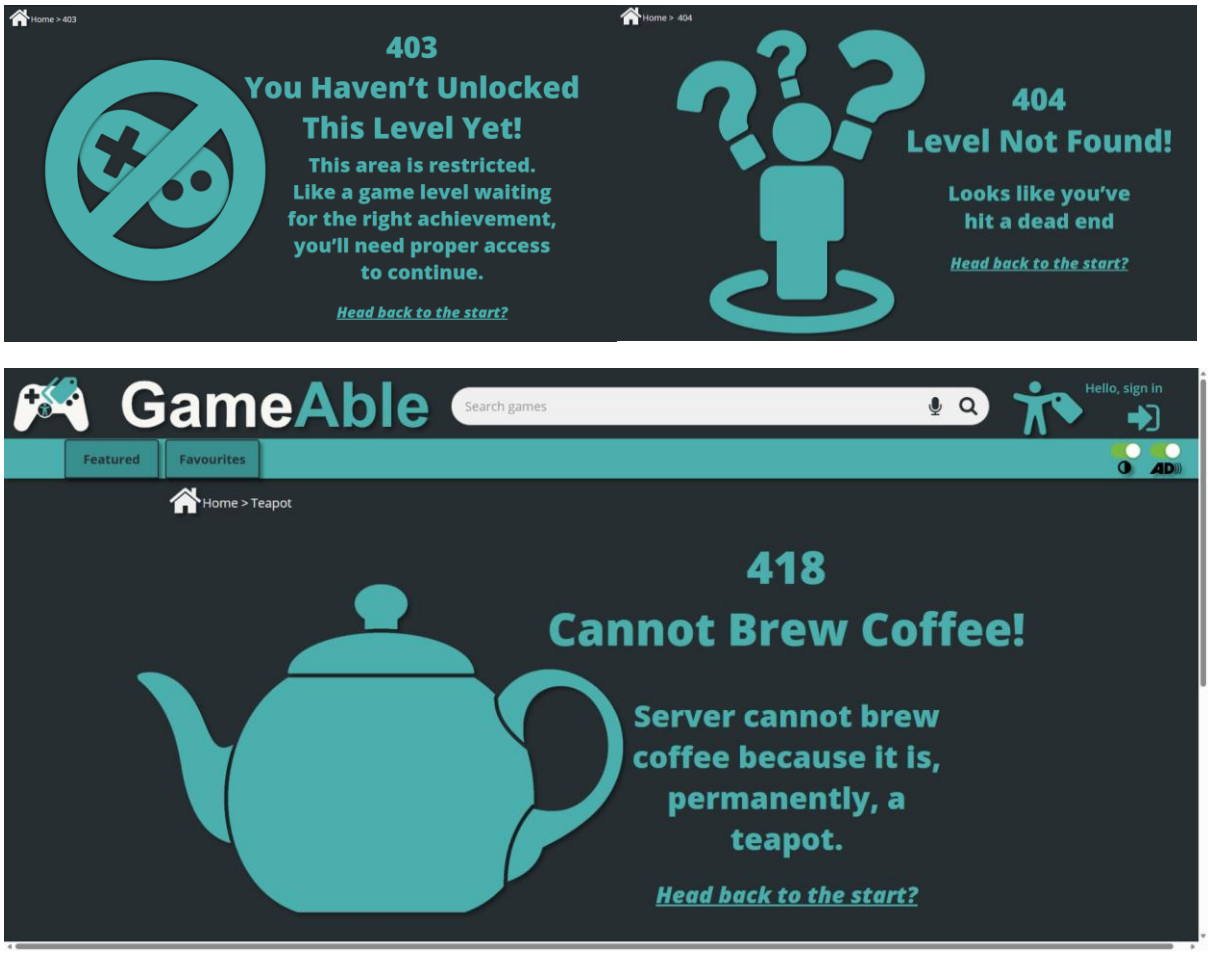

Figure 29. A collection of error pages

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