

Web Technologies

Website Design Brief



Module Name: Web Technologies

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Website Description

Spot It is a spot the difference game website aims to provide users with an engaging and entertaining gaming experience by offering a visually and mentally stimulating puzzles to boost the brain. Users will be able to challenge themselves with different levels of difficulty ranging from easy to expert.

The logo as shown below matches the theme of the rest of the website.



Background Research

In addition to exploring other existing spot the game websites such as “spot the differences” (Dyslexia Research Center USA, 2024) and “spot the difference” (DLC Websites, 2024).

Thorough research was done into user feedback and reviews to understand common preferences and features enjoyed by users that encourage them to keep using the sites. Analysing platforms like GitHub proved fruitful as there were many valuable resources such as Nick Ang’s spot the difference game code (Ang, 2016), which provided insights into various programming approaches and functions as a good base point for this project.

Key findings from customer feedback and reviews highlighted several commonly appreciated and sought-after features, including a competitive time feature, a scoreboard, a counter for a clear indication of remaining differences. These insights were considered when creating the mock up for the Spot It website, ensuring alignment with user expectations and preferences.

Furthermore, research into best practices in game design, user experience and interface design was conducted to ensure the development of an engaging and intuitive interface for an optimal user experience. Examples of best practices include incorporating responsive design principles to ensure compatibility across devices, implementing clear and intuitive navigation menus and optimising loading times for seamless gameplay experiences (Dori, 2019).

By incorporating insights from existing websites, user feedback and industry best practices, Spot It will not only meet user expectations but also deliver a captivating and enjoyable gaming experience for all players.

Website Features

For the website features they have been separated into two categories those that we believe to be required for the functionality of the website and the basic features expected by users. The aspirational features are those that may be too difficult for me to program given my limited experience with HTML, CSS and JavaScript and they are also features that are not required for the users to have an exciting seamless experience.

Required Features:

- Adding a time feature for competitive play will add a sense of urgency and challenge to the gameplay and appeal to more competitive users.
- Having a scoreboard to track user achievements and high scores will provide incentive for users to improve their scores and compete with others.
- Including a difference counter to tell you how many differences are currently left to spot will enhance user engagement by giving clear feedback on the completion status of the puzzle.
- Having a range of levels of difficulty (beginner, intermediate and expert) will cater to users of varying skill levels and so will increase the number of users of the site.

Aspirational Features:

- Having three lives which will count down as the user clicks in the incorrect spot will add an additional level of difficulty and strategy.
- Including a show the solution button will be a helpful tool for if users are unable to find all the differences to provide feedback.
- Instead of hardcoding the differences into the puzzles it would generate the artifacts randomly using algorithms. This will create limitless unique puzzles for users so they will never run out and keep returning to the website.

Site Organisation

Home Page

The home page serves as the central hub from which users can access all other pages within the website. Users can navigate to different sections of the site by returning to the home page and selecting their desired destination.

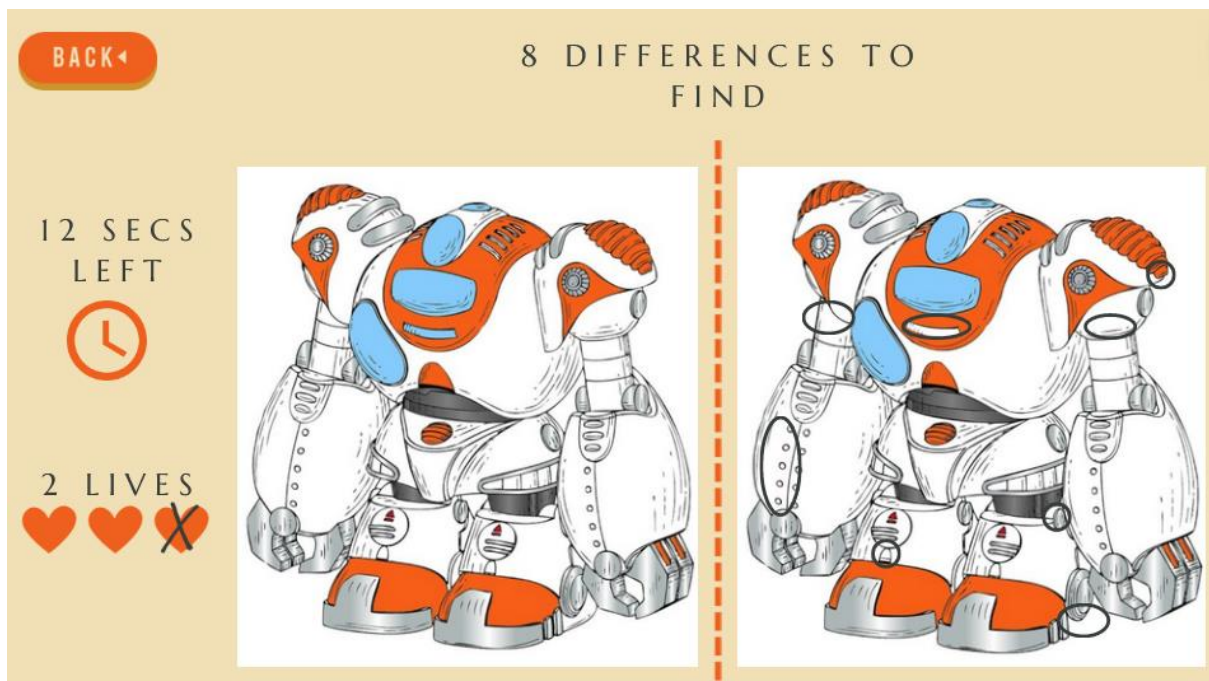
The design for the whole website will feature a pastel colour scheme which was chosen to create a visually pleasing, calming and inviting atmosphere for users.



Puzzle Pages

Accessible from the home page, the puzzle pages feature the spot the difference challenges. Initially there will be one puzzle available for each level. However, future plans include implementing a feature where users are directed to a random puzzle of their selected difficulty or to have levels within the difficulty categories. Due to time constraints, the full array of features may not be fully implemented in this project.





Score Board

The score board is accessible from the homepage, tracks users achievements and displays the high scores of all users.

User scores are calculated based on both accuracy and speed. For each difference correctly identified, users earn 10 points. Additionally, users are awarded 1 point per second saved, incentivizing quicker completion times. For example, if the puzzles was solved in 20 seconds that would be 40 points awarded as well as the points for the identified differences. Future updates may further refine the scoring system to properly consider difficulty levels, by potentially offering higher points for expert levels to incentivize players to challenge themselves further.

Top Spotter Rankings

RANK	PLAYER	SCORE
1		
2		
3		
4		
5		



Initial User Interface

The initial user interface design prioritises a simple and clear style with an easily understandable navigation system so users with all ranges of technical ability will be able to navigate Spot It effortlessly. Large buttons and clear font choices have been implemented without to support users with dyslexia or any visual impairments, ensuring an inclusive experience for all.

In line with accessibility considerations, a pastel colour scheme is utilised throughout the website. This choice not only maintains consistency but also enhances the visual appeal of the site. The soft hues create a calming and inviting atmosphere, contributing to an enjoyable browsing experience for users.

Careful attention has been paid to selecting design elements that complement the clean, pastel theme, fostering a cohesive user experience. Visual elements such as icons and graphics are used sparingly and purposefully, aiding in navigation without overwhelming the user.

By prioritizing simplicity, accessibility, and visual appeal in the initial user interface design, the aim is to create a welcoming and intuitive browsing experience that encourages users to engage with the spot the difference game and explore all the website has to offer.

Project Plan

The project is broken down into tasks below. By following this plan it will ensure the successful development of the Spot It game website, delivering a high quality website that the user is guaranteed to enjoy.

Tasks:

Design brief

- Conduct in-depth research on different spot the difference game websites on the Internet, focusing on features, design trends and looking at user feedback.
- Gather inspiration from other websites for the design theme.
- Research colour schemes and design styles to create a cohesive and visually appealing design for the target audience.
- Develop a mock-up of the website using Canva including the website layout and user interface elements based on the research.
- Consider the technical requirements for implementing the named features and functionalities.

Website Pages creation

- Create the homepage layout, incorporating the navigation buttons.
- Create at least one individual game page including the images for the puzzle, and integrate the features such as the timer, lives and counter.
- Design the scoreboard page, allowing users to view their achievements and compare scores with each other.

Integrate UI elements

- Integrate the UI elements such as buttons, menus, and any other interactive elements into the website pages.
- Conduct a usability test to identify any usability issues or areas for improvement in the user interface design.
- Make any necessary adjustments as required from the feedback from the test to optimise user satisfaction.

Implement backend functionality for game mechanics

- Implement the additional features such as the timer, lives and counter.
- Implement the scoring system
- Test the backend functionality throughout to ensure it functions at each stage as intended.

Testing and updates

- Depending on how the other stages have gone finishing other tasks may be required.
- Test thoroughly to ensure it functions as intended and is robust against errors.
- Address any technical issues or bugs identified during testing and debugging to ensure a smooth user experience.
- Implement any final updates or optimizations based on user feedback, making necessary adjustments to ensure the best experience for users.

The table below shows the estimated timeline and deadline dates for the tasks.

Tasks	Time Frame	Dates
Design brief	2 weeks	16 th Feb – 1 st March
Website pages creation	2 weeks	2 nd – 15 th March
Integrate UI elements	1 week	16 th – 22 nd March
Implement backend functionality for game mechanics	3 weeks	23 rd March – 12 th April
Testing and updates	1 week	13 th – 19 th April
Final Report and create demonstration	1 week	20 th – 26 th April

References

Dyslexia Research Center. (2024). Spot the differences. Spot-differences. Retrieved 20 February. 2024, from <https://spot-differences.com/>.

DLC Websites. (2024). Spot the difference - Find the differences - SpotTheDifference.com. SpotTheDifference. Retrieved 20 February. 2024, from <https://spotthedifference.com/>.

Ang, N. (2016). GitHub - nickangtc/spot-the-difference: Web based Spot the Difference game. Github. Retrieved 24 February. 2024, from <https://github.com/nickangtc/spot-the-difference>.

Dori, A. (2019, September 30). Game Design User Experience Best Practices . Gamedev. Retrieved 26 February. 2024, from <https://gamedev.net/articles/game-design/ux-for-games/game-design-user-experience-best-practices-ultimate-guide-r5204/>.