



Amuse Labs - Create Puzzle Functionality

A Heuristics and Usability Report by

Team 1

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Executive Summary

[Amuse Labs](#) is a web app platform for creating embeddable Crossword, Sudoku and Wordsearch puzzles on any website to improve their user engagement. After doing a thorough testing of the app's create puzzle functionality for the non-approved partners of Amuse Labs as per [Nielsen's 10 heuristics](#) framework, our overall impression of the app was great, especially given the fact that creating a puzzle can be a fairly complex task. We were cognizant of the fact that it's designed for a niche audience of puzzle creators and most would be repeat users. We did come across a bunch of issues though, some of which we think are easy to resolve and some more complex. We hope you find this report insightful and enjoy reading it as much as we did building it.

Methodology

We were a team of 3 doing this project. We did an evaluation of the web app of Amuse Labs individually according to Nielsen's 10 heuristics framework and then combined our observations over a discussion. Among the 3 of us, the evaluation was carried out on Chrome and Firefox browsers. We have classified our finding under each of the 10 heuristics, within which there are two categories, positive and negative. The positive section has observations indicating what works well, and the negative section talks about what can be better under that particular heuristic and its possible remediations. Screenshots wherever relevant have been placed below a specific finding unless otherwise stated.

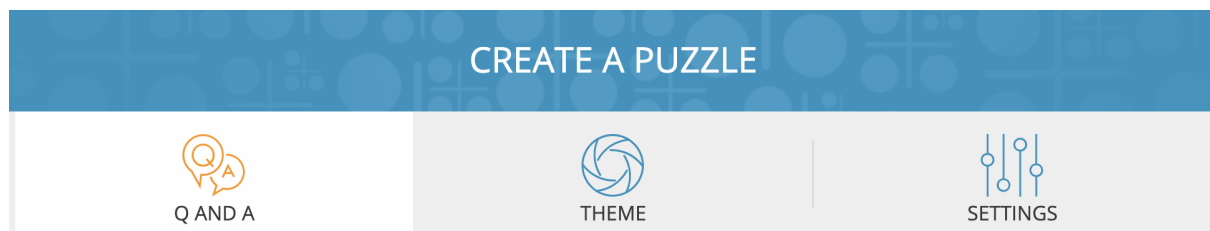
Findings

#1: Visibility of system status

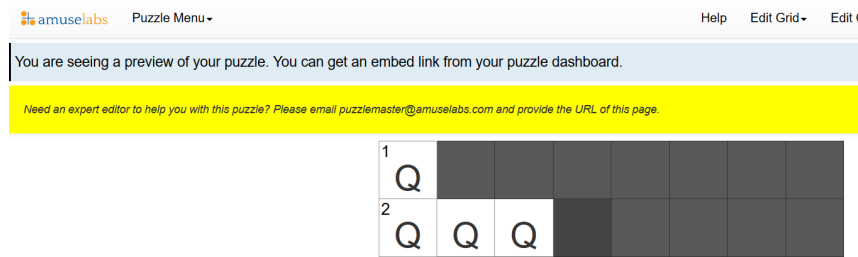
The design should always keep users informed about what is going on, through appropriate feedback within a reasonable amount of time.

Positive

1. As a user, I clearly understand which section I'm in. In the below image, the Q AND A section is neatly highlighted.



2. While previewing/editing the puzzle, it is clearly indicative of the status that the user is seeing a preview of the puzzle. [Shown in the below image]



Negative

1. When a user unselects, start with the empty grid in sudoku, and creates a puzzle, and then comes back to the initial page, start with empty grid shows as selected again. This is very confusing as a misleading system state is being communicated.

Suggestion: Upon clicking create puzzle, it would be more welcoming if users are greeted with a blank puzzle.

2. The 'Login' button on the landing page of Amuse Labs is misleading as it always says login irrespective of the user is already logged in; as an already logged in user I couldn't understand if I was logged in or not. Clicking on login would take me to the dashboard if I was already logged in. It would take me to google/Fb auth if I wasn't logged in.

[Home](#) [Gallery](#) [Features](#) [Enquiries](#) [Create](#) [Login](#)

Suggestion: Have consistency on the login behaviour in the navbar like there is on the dashboard/create puzzle page; Indicate a user is logged-in if and when they are.

Multiple heuristics: This also addresses the 'Consistency and Standards' and 'Recognition rather than recall' heuristic.



















3. The dashboard is required to embed the puzzle right after the puzzle creation, but it is unclear as to where the dashboard is located. It can only be located by a user who already knows where to find it.

Multiple heuristics: This also addresses the 'Recognition rather than recall' heuristic.

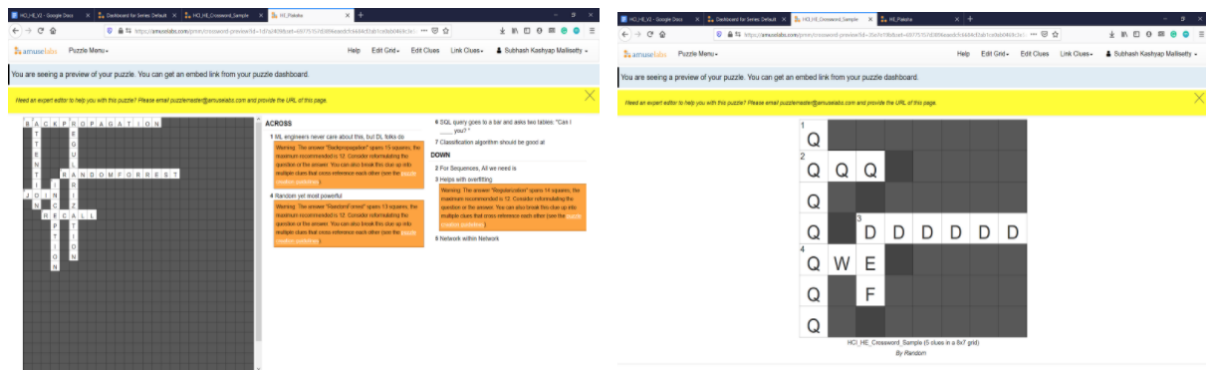
4. From the analytics page there is no clear navigation in place.

Suggestion: For clear navigation, add a dashboard button and home button

5. [Potential Bug] Upon creation of the puzzle the creation timestamp is shown as Jan 22, 2017, above figure, whereas the actual date was Mar 22, 2021. This could potentially be a bug, requiring further investigation.

 Temp Random	Thu Mar 11, 2021 11:23 UTC	1 Plays	    
 HE_Plaksha Random	Sun Jan 22, 2017 00:00 UTC	0 Plays	    
 HE_Plaksha Subhash Kashyap, Ankit Saini	Sun Jan 22, 2017 00:00 UTC	6 Plays	    

6. [Potential Bug] The below two screenshots belong to the preview of two different puzzles and the image on the right does not contain the clues and upon clicking edit clues there is no action that can be taken.



#2: Match between system and the real world

The design should speak the users' language. Use words, phrases, and concepts familiar to the user, rather than internal jargon. Follow real-world conventions, making information appear in a natural and logical order.

Negative

1. The checkbox to start with an empty grid looks disabled. Doesn't give the user a clear indication of whether it's in a clickable state or not.

Suggestion: Have the checkboxes filled with a lighter background instead of a grey background so they look active and not disabled.

PUZZLE INFORMATION

Create a crossword, sudoku, wordsearch or quiz quickly by filling in the fields below.
If you already have a puzzle file, click Import at top right.

Puzzle Title

Author Name

Author Email Address

English (USA) ▼

☒ Start with empty grid

Sudoku ▼

- Crossword
- Sudoku**
- Wordsearch
- Quiz (beta)

SUDOKU OPTIONS

2. Grey of the dropdowns looks disabled. They can have a lighter background.

Multiple heuristics: This also addresses the 'Consistency and Standards' heuristic.

3. No button to remove a question once added to a puzzle. Remediation would be to introduce a button to remove a previously added question.

Multiple heuristics: This also addresses the 'User control and Freedom' heuristic.

4. Clear form while creating the puzzle is in the top nav which is fairly misleading, it's not placed in the local scope. Remediation would be to have it within the scope of the puzzle with a decent emphasis.



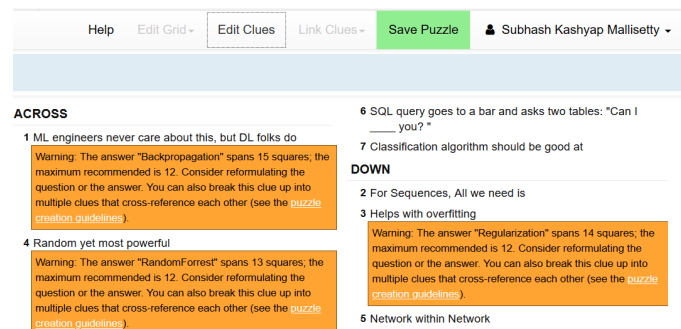
5. Not sure if the theme is the correct heading for all the items that are listed under it. It has things like puzzle instructions, which don't fall under a theme.

6. Dashboard usually indicates an analytics page whereas here it is providing the list of created puzzles.

Suggestion: Rename dashboard to 'My Puzzles'.

Multiple heuristics: This also addresses the 'Consistency and Standards' heuristic.

7. Upon clicking on the edit clues and hovering onto the clues, none of the clues turn clickable.



Suggestion: Upon hovering onto a clue, highlight the clue indicating that the clue can be edited.

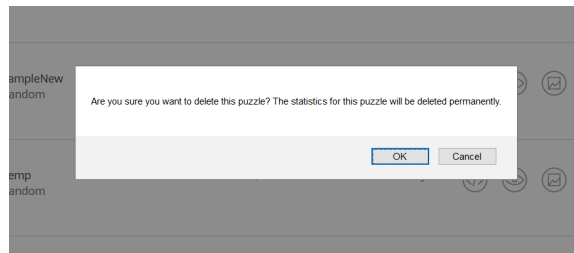
Multiple heuristics: This also addresses the 'Consistency and Standards' heuristic.

#3: User control and freedom

Users often perform actions by mistake. They need a clearly marked "emergency exit" to leave the unwanted action without having to go through an extended process.

Positive

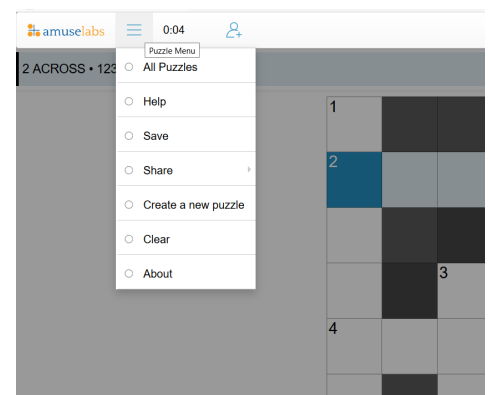
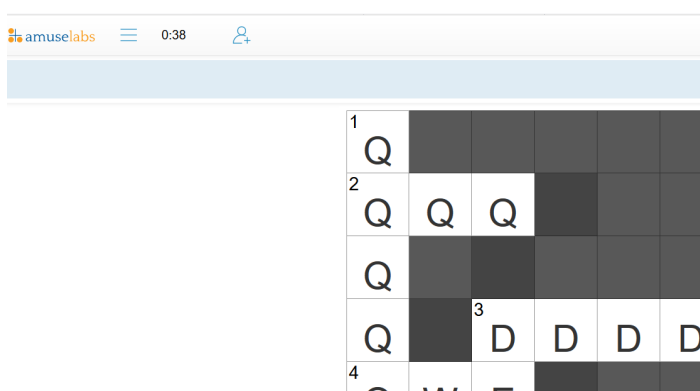
1. Upon clicking the trash icon next to the play, it prompts the user for confirmation. User control has been ensured in this case, as the user here can choose to delete or cancel.



Multiple heuristics: This also addresses the 'Error Prevention' heuristic.

Negative

1. Upon clicking play the user doesn't get an empty puzzle but a previously played puzzle version, in order to clear the puzzle, one has to click the three lines to access the clear option, as shown in the figures above, which is not intuitive and took a while to discover.



Suggestion: Have the clear puzzle button more accessible.

#4: Consistency and standards

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform and industry conventions.

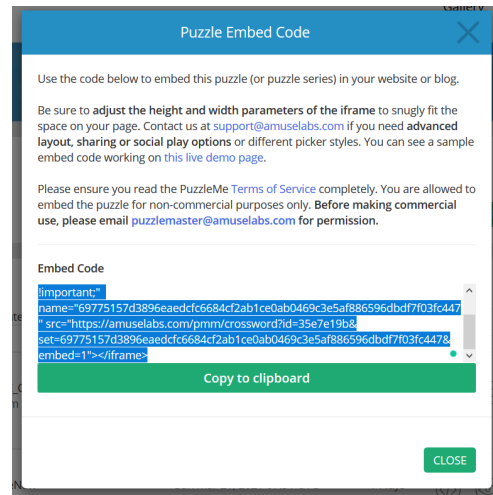
Negative

1. When the user is on the create puzzle page after having created a puzzle, they still see the create puzzle form populated with the questions from the previous quiz. This is misleading in itself. On top of that, the button below says create a puzzle, which is confusing because the user doesn't know whether any changes they make to the puzzle will edit the existing puzzle or create a new puzzle. Remediation would be to have a blank form on the puzzle.

Multiple heuristics: This also addresses the 'Recognition rather than Recall' heuristic.

2. The Amuse Labs logo in the dashboard section looks clickable but it isn't.

4. Upon clicking embed and copy to clipboard, from the dashboard page, the necessary iframe tag just turns selected without any indication that the code has been copied.



5. On the dashboard with the puzzles listed, the preview/edit button gives no indication of edit, the analytics button looks like a thumbnail icon, the play button is also confusing because the play meaning here is the gameplay, but the icon is video play

Multiple heuristics: This also addresses the 'Recognition rather than recall' heuristic.

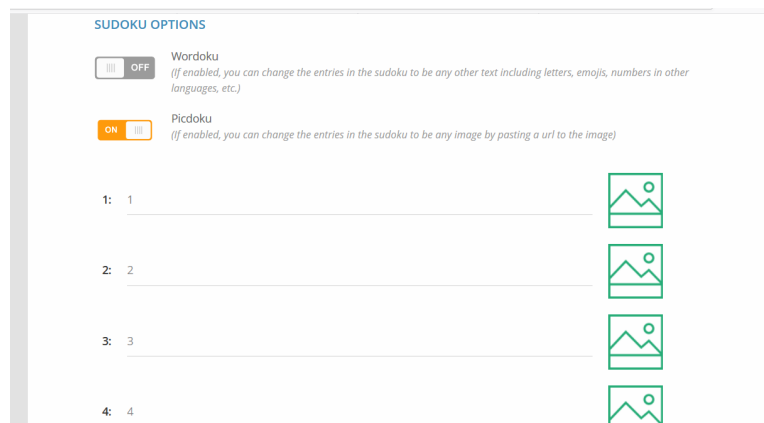


Tue Mar 16, 2021 19:11 UTC

6 Plays



6. In picdoku the placeholder values do not indicate the kind of input the webpage is expecting of the user.



Suggestion: Add a placeholder value that resembles the necessary kind of URL. An upload image button might make it an even better experience.

#5: Error prevention

Good error messages are important, but the best designs carefully prevent problems from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

Negative

1. Large image warning was given after creating the puzzle. Why wasn't it given earlier at the time of uploading the media? Would have saved an unnecessary back and forth.

Suggestion: Give the warning at the time of upload itself.

2. Doesn't make explicit which fields are mandatory while creating the puzzle.

The screenshot shows the 'PUZZLE INFORMATION' section of the Picdoku app. At the top, there are three navigation tabs: 'Q AND A' (selected), 'THEME', and 'SETTINGS'. Below the tabs, the 'PUZZLE INFORMATION' section is titled. It contains the following fields and options:

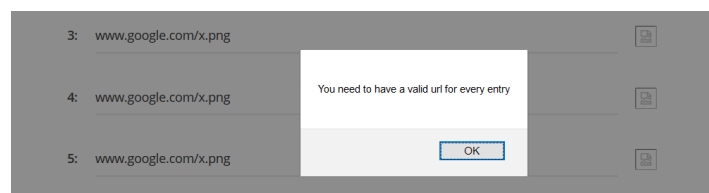
- Puzzle Title:** A text input field.
- Author Name:** A text input field.
- Author Email Address:** A text input field.
- Language:** A dropdown menu currently set to 'English (USA)'.
- Puzzle Type:** A dropdown menu currently set to 'Sudoku'.
- Start with empty grid:** A checked checkbox.
- Grid Size:** A selection of '9 x 9'.

Suggestion: Possible remediation is straightforward to mark them with an asterisk indicating mandatory.

3. In the scoring section, puzzle creators can give a positive score for revealing a letter. This is bizarre. This must take only negative values for the gameplay to make sense. Plus 2 scores for revealing a letter in the below image, for example.



4. In Picdoku, the error message of an invalid url occurs upon clicking the create puzzle button, which could have been mitigated by notifying the user already while filling the field.



Suggestion: Warn the user already indicating a wrong url.

#6: Recognition rather than recall

Minimize the user's memory load by making elements, actions, and options visible. The user should not have to remember information from one part of the interface to another. Information required to use the design (e.g. field labels or menu items) should be visible or easily retrievable when needed.

Negative

1. The dropdown of languages in the puzzle information section under Q AND A doesn't have a local scroll. It makes the user scroll the whole page to the bottom when the language the user has to choose is towards the end. The scrolling breaks the user's flow.

Suggestion: Introduce a local scroll in the dropdown itself.

Puzzle Title

Author Name

Author Email Address

English (USA) ▼

English (USA)

Portuguese (Portugal)

Portuguese (Brazil)

Spanish (Spain)

Catalan

French (France)

French (Canada)

Norwegian

Danish

Polish

German (Germany)

German (Austria)

Slovak

Italian (Italy)

Kannada

Hindi

Telugu

Gujarati

Bangla

Tamil

Afrikaans

Sudoku ▼

9 x 9

CREATE PUZZLE

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#7: Flexibility and efficiency of use

Shortcuts — hidden from novice users — may speed up the interaction for the expert user such that the design can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

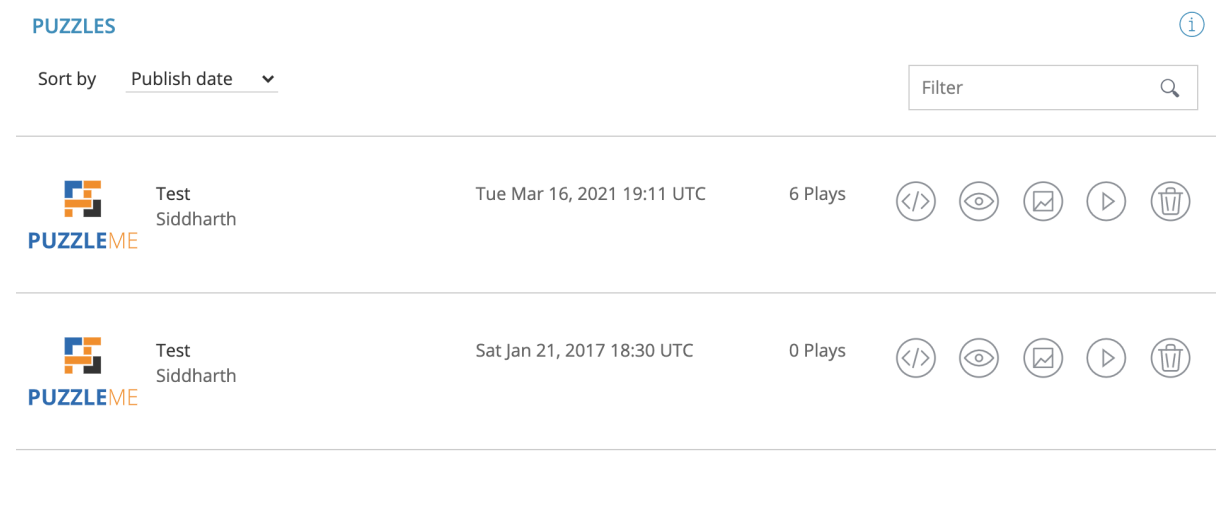
Positive

1. Given creating a puzzle with a lot of flexibility is a fairly challenging task, the overall information design on the website is pretty good. The more complex options don't really confuse the basic user.
2. The functionality to invite another player into the gameplay works fairly smooth and intuitive.

Negative

1. The filter option in the dashboard doesn't clearly convey if the user can filter by title only or title as well as author name.

Suggestion: Adjusting the placeholder text to clearly indicate the filter criteria might make the interface better user friendly.

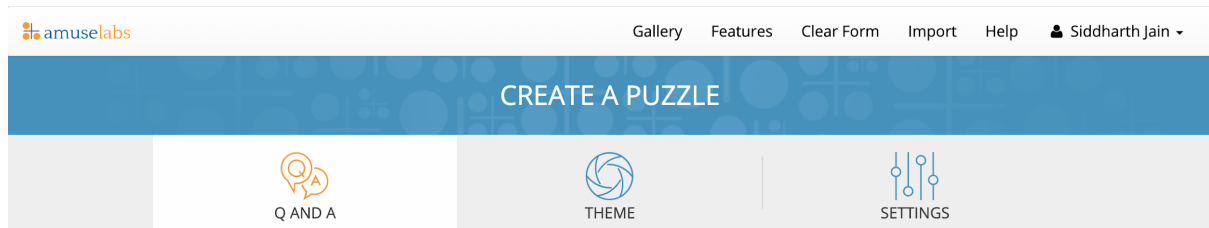


#8: Aesthetic and minimalist design

Interfaces should not contain information that is irrelevant or rarely needed. Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility.

Positive

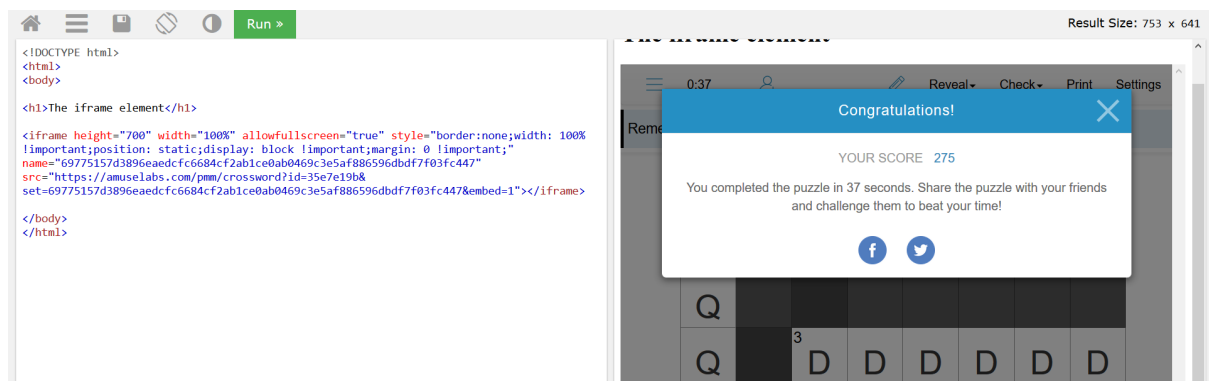
1. The usage of colours is well balanced and pleasant. There are not too many colours creating distractions or confusion.



2. The page header with the create a puzzle title [above image] works really well. The icons are big and clear.

3. The analytics dashboard is well designed. The information design aspect there is particularly well-done.

4. The integration of the puzzle is seamless, the below image has a screenshot of the integration of the created puzzle in the w3schools website.




Negative

1. Clue, answer, and media get all jumbled up and go missing in crossword if I switch to sudoku and then come back to crossword. This is just a development issue.

QUESTIONS AND ANSWERS

Press enter to move between fields.

Clue	
Answer	
Media	
Credits	Media attribution/credits (optional)
Hint	Text hint if the question is difficult (optional)
Related	https://en.wikipedia.org/wiki/Golden_jackal

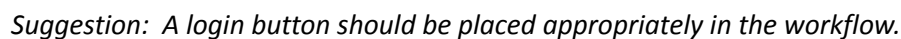
+ ADD A QUESTION

2. Puzzle information fields under the theme section of create puzzles look like short response fields whereas some of them need a longer description than just one line.

Suggestion: Having a textbox might be a more intuitive choice here.

Error messages should be expressed in plain language (no error codes), precisely indicate the problem, and constructively suggest a solution.

1. After the timeout, the user gets a please login again message but after clicking okay on the javascript dialogue box there is no clear way to redirect the user to log in unless I refresh. It's not intuitive to refresh.



Suggestion: Highlighting the wrong entries with a red box would make it easy for the user to make the necessary changes, along with suggestions for what all letters are required.

#10: Help and documentation

It's best if the system doesn't need any additional explanation. However, it may be necessary to provide documentation to help users understand how to complete their tasks.

Positive

1. A clear user-friendly message encouraging users to reach out for any kind of problem is well placed and useful.

No worries if you're lost! Just email support@amuselabs.com a set of questions and answers in any form, and we'll email you back a link to the puzzle in a few hours.

Negative

1. I didn't instantly understand what exactly an empty grid means while creating a sudoku puzzle. Similarly, in the theme section under create puzzle, I couldn't directly make the connection between optional tags and the details below.

Suggestion: A tooltip to briefly describe such options might be helpful for the user.

Conclusion

Building this report was a fun and rewarding learning experience for us. It pushed us to pay attention to several details which we normally wouldn't pay attention to but feel frustrated often as users plus a valuable takeaway for us as future creators. The group work process led us to arrive at a robust set of findings. We shall be sharing this report with the Amuse Labs platform and look forward to what comments they might have. We would like to thank professor Sudheendra Hangal, our Human Computer Interaction instructor and the course TAs at the Plaksha Tech Leaders Fellowship for giving us the opportunity to work on this report and supporting our journey through his inputs.

The end.