AxsJax

SS12: Code for a Cause Code-A-Thon

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Motivation

- Accessibility is rarely a first consideration in design of many web sites
- Visually impaired persons
- Mobility impaired persons

Project AIM

- Making the wikipedia accessible to the visually challenged and mobility impaired
- Making the Sudoku game accessible.

Technologies involved

- JavaScript
- DOM
- AxsJax
- Tools used
  - Firefox 2.x web browser
  - Firevox screen reader
  - GreaseMonkey

http://www.websudoku.com/
http://view.websudoku.com/

- When the page loads up, the script reads out the contents of the cell 0, row 0 of the table.
- The following keys are available to the user for navigation
- Arrow keys for moving up, down, left, right
- 'r' to read the contents of current row
- 'c' to read the contents of current column
- 1-9 keys can be used to enter values in empty fields
- 0 can be used to clear the entry in a particular cell

http://www.websudoku.com/
http://view.websudoku.com/

- The space key can be used to check the current solution
- It would say how many errors in total on the table, and which row and cell is in error
- If no errors, it would say how many more remaining cells to complete.

http://www.websudoku.com/
http://view.websudoku.com/

- The user can also use the following keys to select new puzzles
- 'e' for selecting a new easy puzzle
- 'm' for selecting a new medium puzzle
- 'h' for selecting a new hard puzzle
- 'v' for selecting a new evil (very hard) puzzle

http://www.wikipedia.org

- When the page loads, the focus by default is on the search box
- The following keys are available for accessibility
  - '?' – to hear about the key shortcuts
  - 'Esc' – to get into the language help
  - '/' – to get out of help and put focus back on the search box
  - 'n' – to go to the next language
  - 'p' – to go to the previous language
  - 'enter' – to select the current language and go to the web page for that particular language

http://en.wikipedia.org

- When the page loads up the user can start using the 'n' and 'p' keys to read the paragraphs
- The following key characters are used
  - 'g' – to go to the table of contents
  - 'n' – to go to next section or paragraph
  - 'p' – to go to previous section or paragraph
  - 'enter' – to start reading the paragraphs in a particular section while reading the table of contents
  - '/' – to put focus on the search box

Functionality of our Software

- Making language selection accessible to the user

- Making the structure of the web site accessible to the user

- Make the navigation accessible

Conclusion

- Many thanks to Prashanth for excellent support and mentoring
- Many thanks to SS12 group for an excellently organized program
- User guides at http://ss12.info/svn/axsjax/docs