Ryan Admire, Benjamin Leach, Brett Lindsay, Chad Nelson, Jason Pham

10 x 10 Studios  University of Missouri – St. Louis

Devloper’s guide

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This is the Developer’s guide for Alaina’s game created by 10 x 10 Studios. It will contain a high level overview of each of the files that makes up the game as well as a more in depth look at the code behind it. It is coded almost entirely with HTML, Javascript, and CSS.

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# Slideshow.js

This is far and away the most complex file in the bunch. It will be broken down step by step to better explain the processes behind it.

Global Variables:

A number of globals are used due to their ease, even though it is generally considered bad practice to use them.

* Audio – the song that plays
* imageArray – an array of images
* DURATION\_PER\_IMAGE – how long each slideshow image stays on screen
* numPauses – how many pauses during a playthrough
* maxPauses – maximum number of pauses
* gameMode – tells the program which game mode is being played
* wrongChoicesForGame2 – keep track of how many questions have been missed to facilitate dynamic difficulty.
* Question\_type – to randomly select a question for *Play Solo* mode.
* isGameRunning – tracks whether or not the game is actually running
* text\_on\_pause – shows its value when the game pause

As well as a few more not mentioned here that have a hand in the same processes as those that are.

Functions for Slideshow.js:

* showImage() – shows an image from the image array in the proper element on main.html. Will wrap around if at the end of the array via an if statement. Will also pause the song if it is the right time. If the song is done it resets the game
* resetGame() – removes all updated info and returns all variables to their default state. Functionally resets the entire game
* stopPauses() – removes the option to pause from the game by permanently setting the *shouldPause* variable to false.
* updatePauses() – takes the song length and calculates how often to pause based upon how long the images will display and how many pauses there are. Specifically,
* interruptSong() – when a pause is hit, this function calls pauseAudio() and displays all the pertinent pop up pictures and text. It handles both *Play Together* and *Play Solo* pauses.
* pauseAudio() – pauses the audio
* beginPlaying() – sets *isGameRunning* to true and then gathers information about which game mode is being played based on which button was pressed. Starts the slideshow and the audio.
* playActionAudio() – plays the audio that prompts Alaina to do something during a pause.
* questionInterrupt() – for *Play Solo* mode only. Grabs a question randomly form the selection of questions and displays the photos associated with it as well as plays the audio to prompt Alaina to solve it. If a wrong choice is made this is stored and that choice’s picture will disappear.

Options menu functions:

The options menu is quite complex and takes up about 250 lines of code just on its own. This section will explain some of the intricate details behind it.

* hideOptionsMenu() – makes the options menu disappear
* choosePause() – manages the adjustable slider that sets the number of pauses per game. Updates *maxPauses*
* openOptionsMenu() – opens the options menu in a “pop up” type window and blurs the background to help make it more readable. The game will also be paused when the options menu is opened.
* closeOptionsMenu() – unblurs the background and shows the resume button so the user may unpause when ready
* blurBackground() – blurs the background by grabbing all elements originally on main.html and obscuring them
* unblurBackground() – reverses the blurring
* textboxAvailability() –
* getPauseColor() – grabs the color chosen in the options menu for the pause text
* changeBackgroundImage() – changes the background image to one of several options based on user choice from within the options menu
* openAboutUs() – opens aboutus.html
* openDocumentation() – opens documentation.html

# Main.html

There are three different HTML files for the site: main.html, documentation.html, and aboutus.html.

main.html is the HTML file for the main web page.

The file itself is fairly simplistic. There are various html elements on the page that on their own don't do much. However, there are references to the Javascript file and the CSS file. Neither of these files will be covered in this portion; but a thorough understanding will help in grasping all of the little complexities in main.html. For now the discussion will only be around the html elements themselves.

* Div – useless on their own. Referenced in the other files
* Img – will be used to display pictures during the course of the game
* Button – 3 distinct buttons that each do different things

1. Play Together – is for the game mode with Alaina and another person
2. Play Solo – is the game mode for only Alaina
3. Options - a pop up menu will display various game options this menu will itself contain buttons, drop down menus, checkboxes, and text boxes. These elements change the look and feel of the page as well as alter how the games modes are played. These should be self descriptive.

* Script – contains references to the javascript file

# Colorscheme.css

This is the CSS file and contains information about how to display the elements on main.html. These can be changed by altering the look and feel from the options menu.

Much of this file will remain static; however, there is a bit of a dynamic element to it. The 3 buttons on main.html will look different based on whether or not the button has been clicked or hovered. Furthermore, there is support for many types of displays built in via media queries.

The layout will change based on the size of the display being used, supported displays are:

* 500 – 790 pixels
* 790 – 1440 pixels
* 1439 and above

Anything below any of these resolutions is not supported and the page will indicate that.

# Aboutus.html

This page itself is very simple and will only contain a small blurb about the developers. Maybe a picture of the team but nothing much will be here. This can be accessed from the options menu of main.html.

# Documentation.html

This page contains a link to the guide that you are reading and nothing more. Much like aboutus.html, this can be accessed from the options menu.