Specification document for A8MiTunes

Design:

The website's purpose is playing audio files (mp3 or wav format). It dynamically creates a list of albums based on the provided JavaScript file called "music.js". All files are taken from the "audio" and "artwork" folders.

There are three tabs in the top part of the website. The left tab displays the list of albums, the middle tab displays the list of songs after clicking on an album, the right tab displays the chosen song and provides a player that allows the user to listen to it.

The bottom part is a virtual keyboard. It allows searching for a specific song. The search keywords can only be entered using the virtual keyboard – typing on the physical keyboard will not do anything. The bottom row contains special buttons for entering a space, deleting the last character and deleting the entire keyword. Once some text is entered, the middle tab will display all songs that contain that text in their title or lyrics.

Clicking on one of the albums while search results are being displayed will cause the album track list to overwrite the results. The user is able to go back to them at any time by clicking on the search textbox.

Function documentation:

generateAlbumList

Arguments: none

Return type: none

This function is called as soon as the website is loaded. Generates a clickable list of albums in the left tab (based on "music.js").

generateKeyboard

Arguments: none

Return type: none

This function is called as soon as the website is loaded. Generates the virtual keyboard.

generateTrackList

Arguments: **album_id** (*int*)

Return type: none

This function is called when an album name in the left tab is clicked. Generates a clickable list of songs from the chosen album (referenced by **album_id**) in the middle tab.

generateSongData

Arguments: **album_id** (*int*), **song_id** (*int*)

Return type: none

This function is called when a track name in the middle tab is clicked (whether it is in album list mode or search results mode). Generates a description of a given song (referenced by **album_id** and **song_id**) in the right tab. The description contains: the album image, artist, album name, track number, track title and an audio element to play the song.

insertLetter

Arguments: **c** (*char*)

Return type: none

This function is called when a letter or space button on the virtual keyboard is clicked. Enters **c** (the character associated with the button) into the search bar.

deleteLetter

Arguments: none

Return type: none

This function is called when the back button on the virtual keyboard is clicked. Deletes the last character in the search bar.

resetSearchBar

Arguments: none

Return type: none

This function is called when the reset button on the virtual keyboard is clicked. Deletes all text in the search bar.

search

Arguments: none

Return type: none

This function is called whenever the text in the search bar changes or when the search bar is clicked. Generates a clickable list of songs that match the search bar text in their name or lyrics in the middle tab. The searched text is highlighted in both the title and the provided lyrics snippets.