Exercise 4 discount methods

UX Studio II: Screen

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Exercise Overview

Throughout this exercise, I will use a heuristic evaluation and cognitive walkthrough to perform a usability evaluation of a popular website called Ultimate Guitar Tabs. The heuristic evaluation will involve examining the site and assessing its compliance with 10 recognized sets of usability principles (heuristics). Some of these heuristics include Nielsen's heuristics, which are a proven set of guidelines for interaction design, and other notable heuristics. The cognitive walkthrough will focus on user tasks and the systems response to these tasks. I will use these heuristics and task analysis to identify usability concerns within the website and provide potential suggestions for improving the site.

Website Selection

The website I chose for a cognitive walkthrough and heuristic evaluation is Ultimate Guitar Tabs, which is a popular site that allows users to learn and upload guitar chords and tabs for different songs. Users are able to create a profile and save songs to their library to view later. Although users have the ability to upload chords and tabs themselves, I will focus on the evaluation from the perspective of a user who only wants to learn from music, not necessarily upload or take courses.

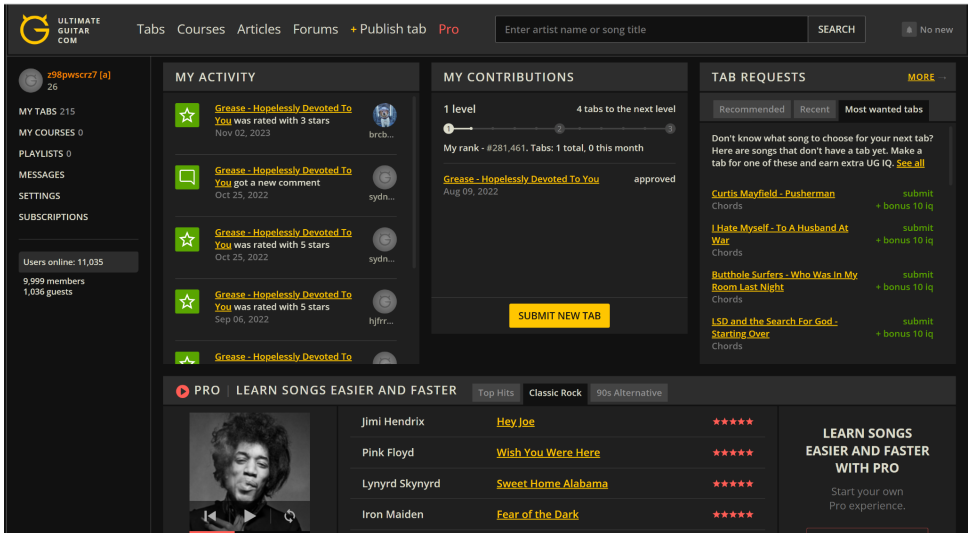

Figure 1: Ultimate Guitar's Landing Page

Cognitive Walkthrough

I began by following **Wilson's (2014) four steps of preparing for a cognitive walkthrough.** Once I had an understanding of a user's experience and use for the site, I developed a list of tasks and action sequences for my participant to perform as they interact with the website. Finally, I conducted the cognitive walkthrough with a participant who was already familiar with interacting and using the website, and I took note of potential tasks where there could be future development and improvement in terms of the users interaction with the system.

Participant

- ➔ Name: Sydney
- ➔ Background: She is a guitar player who wants to learn her favorite songs but doesn't want to have to figure out the notes and chords out by ear. She uses ultimate guitar regularly on her phone or laptop to learn song chords and tabs. She is already signed in to their profile, so she can now access her library of saved songs.

Walkthrough + Task Analysis

The participant was in a quiet environment that she would normally use the website in. She was given her laptop with google chrome open to begin completing tasks and action sequences within the website.

1. Task Goal: Look up a specific song and choose the version you want to learn

Actions Sequence	**Q1: Will the user try to achieve the right action?**	**Q2: Will the user notice that the correct action is available?**	**Q3: Will the user associate the correct action with the result they're trying to achieve?**	**Q4: After the action is performed, will the users see that progress is made toward the goal**
1. Open ultimate guitar tabs	**Yes**, they easily type and search for the site on their browser	**Yes**, they see the search box	**Yes**	**Yes**, they now can see where to search for the song
2. Go to the search bar and click	**Yes**, because it's evident on the screen	**Yes**, their cursor indicates that they can click and type	**Yes**	**Yes**, because now they can begin to type
3. Type the song and click / select from the suggested results	**Yes**, as they type, auto suggested song begin to popup in a dropdown	**Yes**, they can easily select the suggested song or find it from their collection	**Yes**, the song they search for pops up. The song's box is highlighted when hovering over an item	**Yes**, once they click on a song, they are taken to a page of different versions
4. Look at list of different versions and select the version you want to learn	**Yes**, they can see the most highly rated versions and select from those	**Yes**, when they hover over their selection the text changes and the cursor changes	**No**, although it indicates when hovering selection, it is not the most visually appealing and evident that they are about to be taken to a different page	**Yes,** once they click on the version they selected, it takes them to a page with the song's chords

Figure 2.1: Task 1- Four Question Approach of Wharton et al. (1994)

2. Task Goal: Find a specific song in your library that you previously saved

Action Sequence	Q1: Will the user try to achieve the right action?	Q2: Will the user notice that the correct action is available?	Q3: Will the user associate the correct action with the result they're trying to achieve?	Q4: After the action is performed, will the users see that progress is made toward the goal
1. Open ultimate guitar tabs	**Yes,** then understand how to get to the site	**Yes,** the system's screen shows them the landing page	**Yes,** from experience	**Yes,** from experience
2. Go to your library of songs you have previously saved and click	**No,** they don't immediately understand where their library of songs is. Once they realize 'my tabs' is their library, they click. They thought the language was unclear	**No,** it's not clearly indicated on the screen of where their library is	**No,** the system doesn't make it clear where your library is. Once the user finds where to click, the text slightly bolded and the cursor changes	**Yes,** the system takes the user to the 'my tabs' page, where they see the list of songs added to their library
3. Search for song	**Yes,** the system shows their entire library of songs in a list, but they have to scroll through to find the song.	**Yes,** the system gives them options to filter by chords, tabs, favorites, and by date add. However, there is no direct search option or alphabetization	**No,** the user might not immediately understand how to find the song. While there are filters, they can't quickly find the song	**Yes,** once finding their song in the list, they can see the artist, rating, added date, version, and delete button
4. Select song and click	**Yes,** they will have identified the song and know the location from their search	**Yes,** the text will un-underline and change color of where they hover over	**No,** the user might not realize they have to directly click on the text of the song they want to select instead of the whole song information box	**Yes,** once they click it will take them to the songs page

Figure 2.2: Task 2- Four Question Approach of Wharton et al. (1994)

3. Task Goal: Find a song from 'explore tabs catalog ' that is from the rock genre

Actions Sequence	Q1: Will the user try to achieve the right action?	Q2: Will the user notice that the correct action is available?	Q3: Will the user associate the correct action with the result they're trying to achieve?	Q4: After the action is performed, will the users see that progress is made toward the goal
1. Open ultimate guitar tabs	**Yes**, they easily type and search for the site on their browser	**Yes**, they access the page quickly from experience	**Yes**, they know to open the website from experience	**Yes**, they now can see the landing page
2. Find the 'explore tabs catalog' box	**No,** the landing page is very busy visually, so they have to scroll and look around the page to find the catalog box	**No,** it took them a while to identify the location because of the system's lack of contrast	**Yes,** the heading for the title of the box was identifiable	**Yes,** they can see the different sections within the box and can see underlined text that she can click on
3. Find the 'genre' section within the box and click 'show all'	**Yes,** they see the 'show all' text below the suggested genres list, she assumes this will take her to a different page	**Yes,** when they hover over 'see all', the system changes the color of the text and the cursor changes	**Yes,** from experience they understand that when cursors changes, if they click it will take them to a different page	**Yes,** the system changes to a different page and they see a box of different genre options
4. From the list of genres, select 'rock'	**No,** the genre box doesn't give any direct instruction in selecting the genre. She sees the list but there was little context for the text	**No,** the system doesn't provide enough indication of what may happen when clicking on a genre in the list	**No,** the box is not visually appealing and it was difficult to determine when you were clicking on a genre	**Yes,** once they click on a genre it takes them to a new page of a list of rock songs
5. Select any song from the list and click	**Yes,** the screen is similar to how they normally look for songs, so they could easily identify a song to learn	**Yes**, when they hover over their selection the text changes and the cursor changes	**No**, it is not the most appealing and evident that they are about to be taken to a different page	**Yes,** once they click on the version they selected, it takes them to a page with the song's chords

Figure 2.3: Task 3- Four Question Approach of Wharton et al. (1994)

Takeaways and Concerns

By using the Four Question Approach of Wharton et al (1994), I was able to **identify possible usability issues throughout user task-based interactions** within the website.

➔ **Task 1 Concerns:**

- Based on Figure 2.1, the most notable concern within the system was that when selecting a song from the different versions, there **wasn't a clear indication that the user was about to be taken to another page**. While underlining does help indicate clickable areas, simply removing the underline when users hover over their selection **doesn't offer enough direction for the user.**

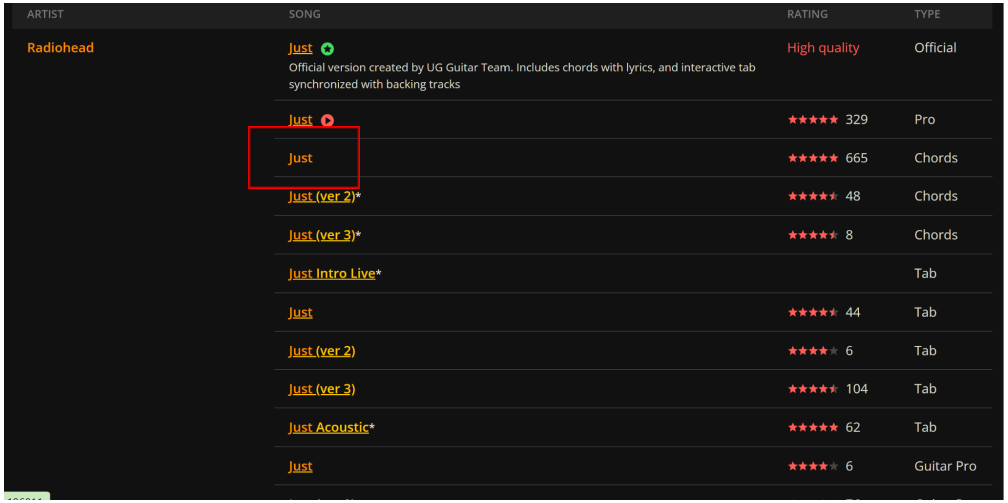

Figure 3: Task 1 - Clicking on song from different versions list

➔ **Task 2 Concerns:**

- Based on figure 2.2, the visual design and layout of the overall landing page **lacked enough contrast and indication of where the participant could access her own library of saved songs**. The language and location of “my tabs” made it hard for her to recognize where to go. For something that the participant and regular users utilize so much, there should be a greater indication of where to go. The overall landing page is also **visually overwhelming**.

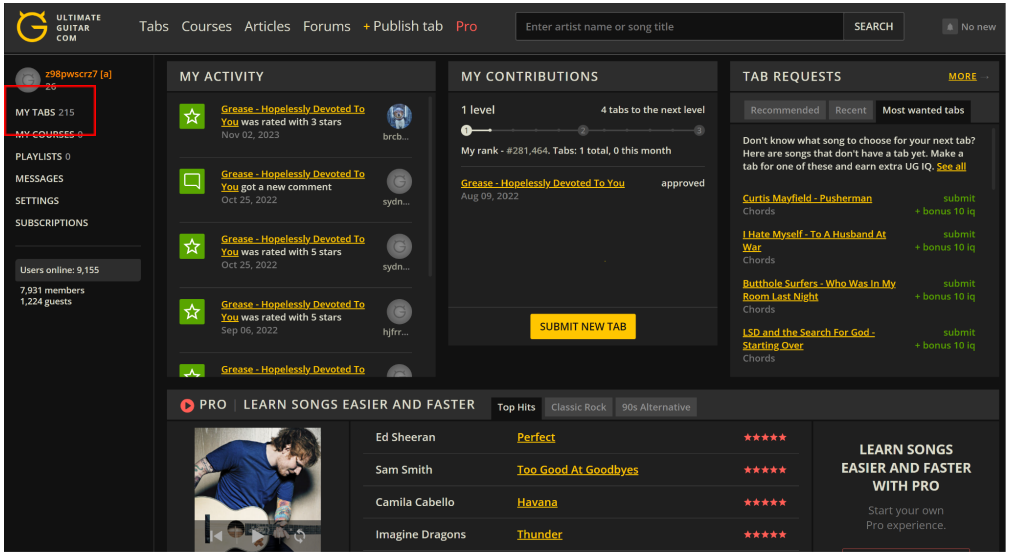

Figure 4: Task 2 - Accessing library of saved songs

➔ **Task 3 Concerns:**

- Based on figure 2.3, the **selection of a particular genre was unintuitive and visually underwhelming**. By clicking 'show all', the participant was taken to a different page and shown a genre box (figure 5) with **little context and direction**. The list was categorized by the numbers on the right side, however there was no indication to the user of what this number represented. Although they were able to select the rock genre easily, the only indication they were about to be taken to another page was a cursor change and slight color change of the text.

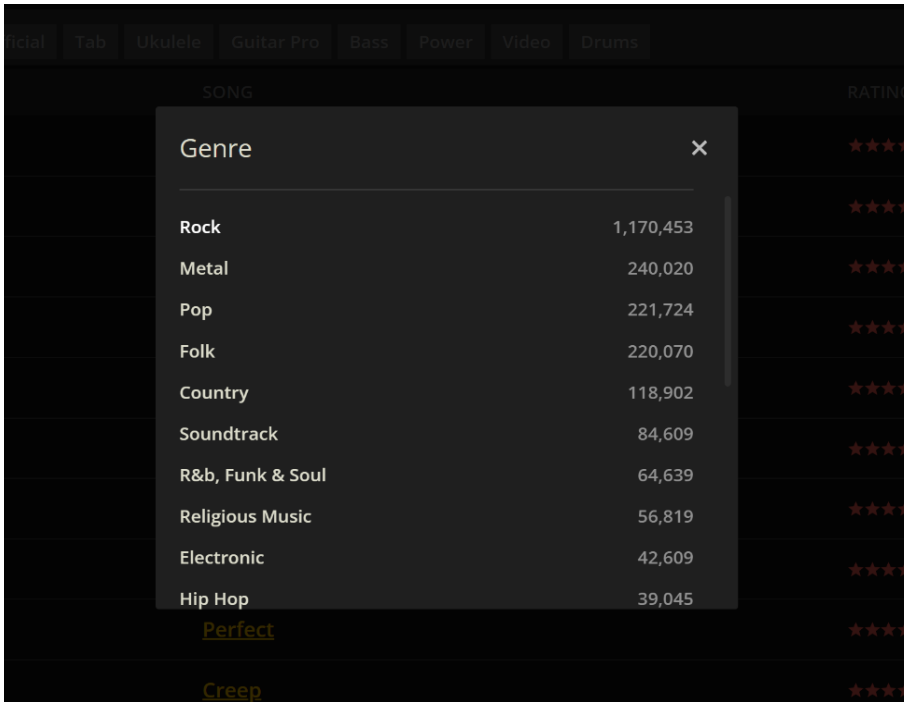

Figure 5: Task 3 - List of different genres

Heuristic Evaluation

For the heuristic evaluation, I identified 10 usability heuristics, 5 from Nielsen's (1995) heuristics and 5 from outside sources. I then used these heuristics to evaluate the website by finding usability concerns and then identified potential solutions.

Nielsen Heuristics (found here)

1. **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.*

    ➔ **Concern:** As seen throughout the figures in this documentation, the **overall aesthetic of the website is overwhelming** with lots of text, icons, links, and popups. Because of the amount of information that must be presented to the user, this site has to give up aesthetics in order to account for the functionality and usability for users, both experienced and inexperienced.

    ➔ **Potential Solution:** Providing more customization within the website depending on the user's level of experience with the platform could help cater the user's interface to meet their wants and needs.

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

Figure 6: User's song library

➔ **Concern:** The user's song library is **difficult to tell what text takes you to different pages**. While the song is identifiable as clickable because of its underline, the artists are also clickable. Although there is a slight bold on the artist name, there isn't a clear indication that when clicked, the user will be taken to another page.

➔ **Potential Solution:** Keeping consistent use of when a user will be taken to another page could be implemented. Although it is hard to manage a lot of text and links, more consistent page link interactions across the platform can help users.

3. **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 should be visible or easily retrievable when needed.*

   ➔ **Concern:** When scrolling down through the website, the **user will lose sight of the navbar and the side panel**, which contain the main navigation and access to the user library. If a user wants to quickly search something or access their profile, they have to scroll all the way back up to access.

   ➔ **Potential Solution:** Creating a hanging navbar or side panel that will stay consistent as the user scrolls. While this causes concern for an overload of information on the screen, identifying the correct situations where this could be implemented would be useful.

4. **Flexibility and efficiency of use:** *Shortcuts — hidden from novice users — may speed up the interaction for the expert user so that the design can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.*

- ➔ **Concern:** On a song's page, there is a toolbar at the bottom of the screen that gives the user multiple customizations to the text, chords, and notes. While some of the included tools are useful for varying levels of experience, **more experienced users may want to quickly access different tools** they've learned from experience. More novice users may only want to see some of the tools
- ➔ **Potential Solution:** Give the user the ability to customize their own toolbar. Depending on their skill level and experience with the website, they can cater it to their needs and wants.

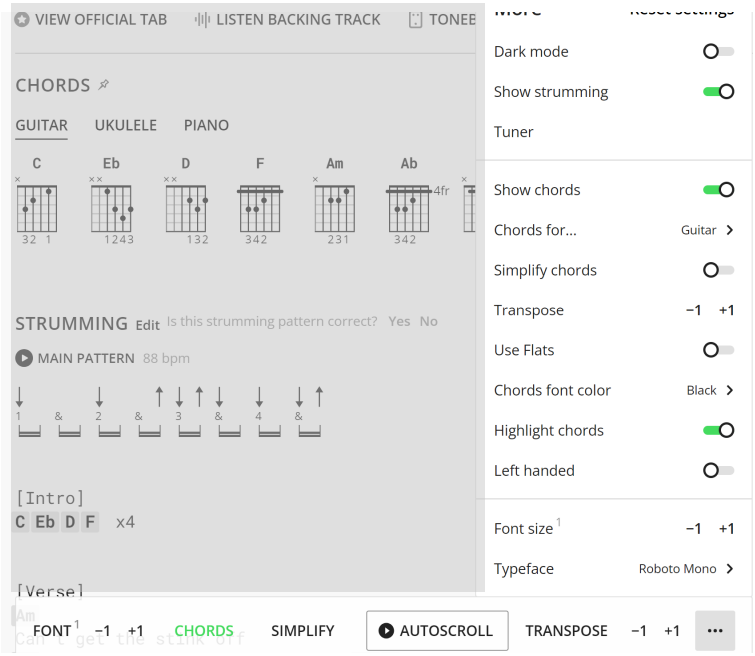

Figure 7 : Toolbar on song's page

5. **Error Prevention:** *carefully prevent problems from occurring in the first place. Present users with a confirmation option before they commit to the action.*

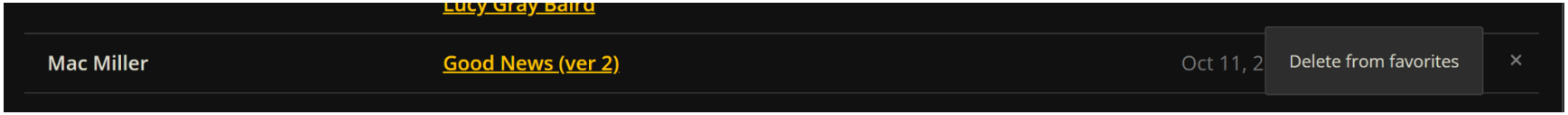

Figure 8: Delete button in song library

- ➔ **Concern:** When a user views songs in their library, each song item box has the artist name, song name, date added, and the delete button. Since these songs are already added to a user's library because they saved them, **they are less likely to use the 'delete from favorites' button often**. Furthermore, if the user clicks on the delete button, it is immediately deleted and there is no way to undo it.
- ➔ **Potential Solution:** Instead of having a delete button that isn't used very often and could be mistakenly clicked, it could instead be removed and replaced with a deletion process that takes two clicks instead of just one.

Other heuristics

1. **Simple and Natural Dialogue:** *Dialogues should not contain irrelevant or rarely needed information. Every extraneous unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.*

    ➔ **Concern:** This website advertises their pro version of the website heavily throughout all screens. The first suggestion for songs is always the premium version, which the user has to pay to access. This can **cause a lot of annoyance for the user if they want to have an uninterrupted experience** without the intrusions of constant advertisement.

    ➔ **Potential Solution:** Finding more effective ways to present their pro version may provide the user a more authentic experience and may even lead to them wanting to upgrade. The site could also provide an option to not show pro versions of songs so that the user doesn't have to see the content they can't use.

2. **Permit easy reversal of actions:** *As much as possible, actions should be reversible. This feature relieves anxiety, since users know that errors can be undone, and encourages exploration of unfamiliar options.*

➔ **Concern:** After searching for a song and selecting a version, there **isn't a clear way to get back to a user's search result**. Although there is a "more versions" section in the side panel, there isn't a clear way to get back to where they were.

➔ **Potential Solution:** The website could create clearer indications of getting back to different pages such as back buttons within the website.

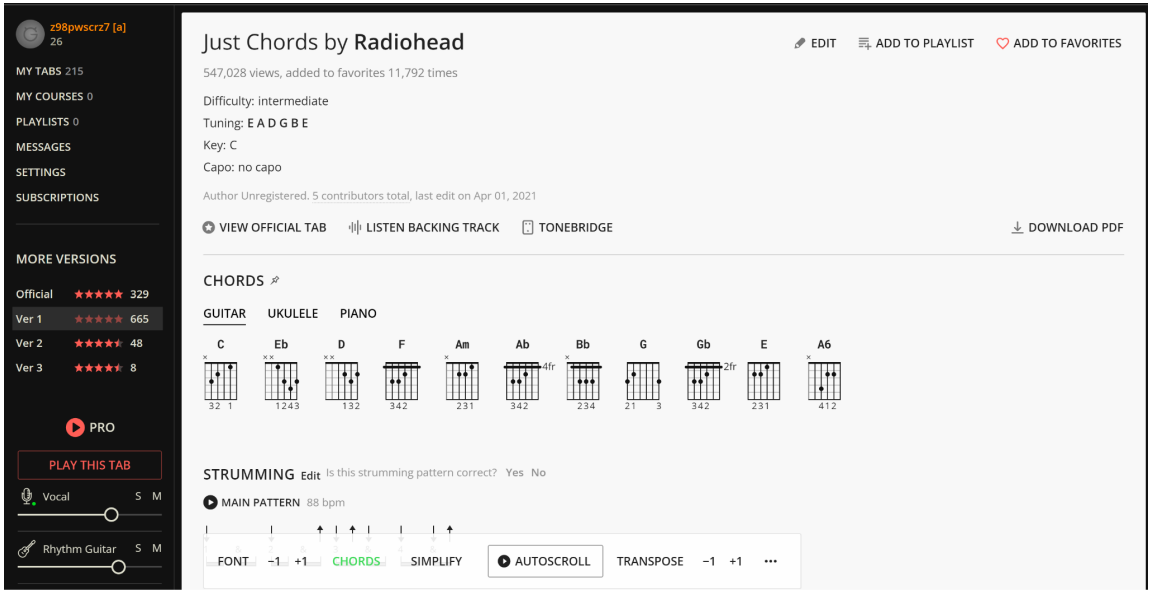

Figure 9: Song's page with no back button to list of different versions

3. **Design the product or service to fit the intended contexts:** *The service or product is always used in particular contextual circumstances: the user is using a product in a physical situation, with a company or alone through the specific cultural habits and way of life in a certain temporal moment. All these context factors have impacts on user experience.*

    - ➔ **Concerns:** The website would be very difficult to navigate as a total novice because of the visual design and overwhelming amount of information. Furthermore, as beginner guitar players are some of the primary users of this site, overwhelming them with a lot of information may play a negative role in their learning development.
    - ➔ **Potential Solutions:** Providing different variations of the platform may allow better experiences based on the users skill level with the platform and guitar level. Users could then customize the amount and depth of information in order to make the site more applicable to them.

4. **Keep Users in Control:** *Experienced users strongly desire the sense that they are in charge of the interface and that the interface responds to their actions. They don't want surprises or changes in familiar behavior, difficulty in obtaining necessary information, and inability to produce their desired result.*

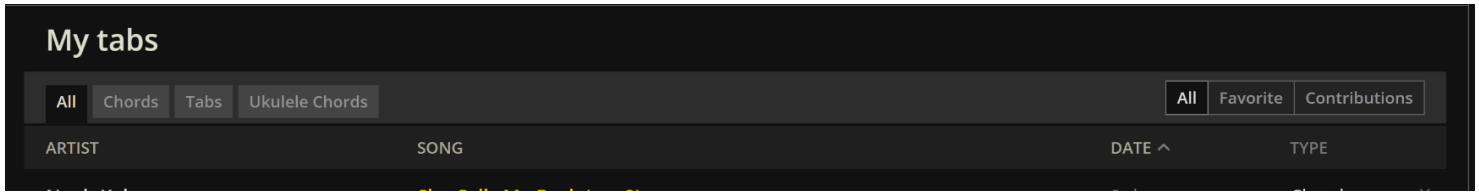

Figure 10 : Library page's filters and organization

- ➔ **Concerns:** The user's song library is not easy to navigate through. Although there are some filters by favorite, date, song, artist, chords, and tabs, there isn't a way to quickly reach a song you want to find. More experienced players may want to group certain songs together or have more customization within their library's organization.
- ➔ **Potential Solutions:** Giving the ability to directly search through the library would be useful. More experienced users may also prefer more customization such as curated groups or other organizational methods besides filters.

5. **Choice Availability** *At every system state, the range of user options should represent those which are appropriate from that state. Thus neither too few or too many choices should be available from any one state, a balance being maintained between the number of steps required for particular operations and the number of options available at each step.*

- ➔ **Concerns:** When searching for a song or artist, there are multiple options that auto generate. The repeated icons on the left side of the screen seem unnecessary and add to the clutter of the screen
- ➔ **Potential Solutions:** Removing the icons on the left side of the screen and adding a different indication between results may help make it clearer to the user of the different options.

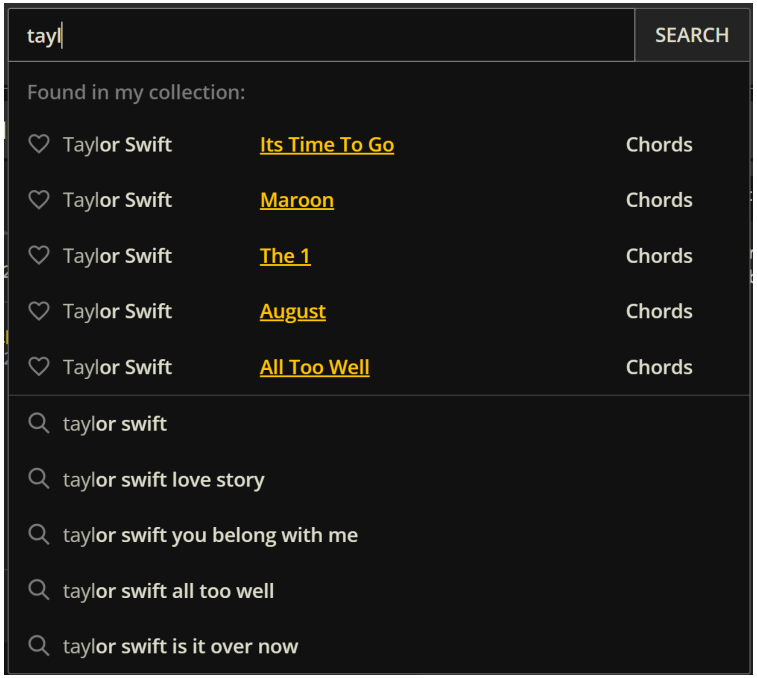

Figure 11: Search results

Results and Suggestions for Improvement

After completing a cognitive walkthrough and heuristic evaluation of this website, I have identified usability concerns and potential solutions for improvement. While I believe the website is a usable platform that presents a large amount of information effectively, there is further room for improvement in terms of accessibility, aesthetics, and customization. Offering a cleaner interface with proper information architecture and interactions will allow users an overall better and enjoyable experience. Furthermore, enabling users with more personal customization will allow them to tailor the features of the site to better fit their needs.

References

Nielsen, J., & Molich, R. (1990, March). Heuristic evaluation of user interfaces. In *Proceedings of the SIGCHI conference on Human factors in computing systems* (pp. 249-256).

Nielsen's 10 heuristics: https://www.nngroup.com/articles/ten-usability-heuristics/

Used to identify 5 other heuristics:
https://uxdesign.cc/usability-heuristic-frameworks-which-one-is-right-for-you-1962387b7cc

Wilson (2014) https://cs.uwaterloo.ca/~jianzhao/cs449-649/files/walkthrough.pdf