Summer 2019

Music Streaming Application Using PHP, HTML, CSS, and JavaScript

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Music Streaming Application Using
PHP, HTML, CSS, and JavaScript

Kelsie Miller

The University of Akron
Abstract

This project is focused on displaying the skills and computer programming languages I have learned throughout my years at Akron. In this design, the backend of my application will be PHP. The frontend of the site will be composed of HTML, CSS, and JavaScript. This site will also have a database that I will build through phpMyAdmin. The project will also be mobile responsive, so if the website would ever be deployed, it will be available on mobile devices. I chose a music streaming site because I have always loved music and it posed as a challenge. My goal in this project and design is to further enhance my frontend development skills and to learn new backend technologies and techniques. I also plan on using this project in my portfolio to showcase to clients and potential employers.
Introduction to the Problem

a. Goals and Purpose / Business Benefits
This year, I hope to start a freelancing business focusing on web design and development. As of now, I do not have much experience or many pieces of my work to show potential clients. Creating this site will drastically help the growth and development of my company, by furthering my skills in a very important language (PHP). This piece will show clients another side of web development that is not just a simple website, but is also a functioning music streaming site. When I have a portfolio to showcase my work, this website will be one of the key pieces that I believe will help to showcase a wide range of my skills. The purpose of this course is to prepare us to be able to organize our ideas and be able to implement all the stages of the system development life cycle (SDLC). Learning this life cycle will drastically help me when I am working either as a freelance designer or in an agency. I am learning new functions of PHP, JavaScript, and SQL that will be crucial to success in my future, wherever I may work.

b. Significance
I was inspired to make a music streaming website when I saw some user interfaces of other streaming sites. I had never really thought of doing this type of a website before, but realized it would be a very helpful piece to have in a portfolio. This site challenges my skills and forced me to do more research than I originally thought I would need.

c. How You Intend to Solve Problem
I intend to write all of the code in PHP and JavaScript with HTML elements. The styles would be made with CSS and some JavaScript. The website will connect to a database through phpMyAdmin by using Xammp as my server.

d. Project Timeline

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Duration</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify Problem / Business Benefits</td>
<td>1 Week</td>
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<tr>
<td>System Requirements</td>
<td>1 Week</td>
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<tr>
<td>Research</td>
<td>2 Weeks</td>
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<tr>
<td>System Design &amp; Architecture</td>
<td>2 Weeks</td>
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<tr>
<td>Detailed analysis &amp; use case requirements</td>
<td>1 Week</td>
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<tr>
<td>Design database tables</td>
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<tr>
<td>Implementation</td>
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<tr>
<td>User Interfaces</td>
<td>2 Weeks</td>
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<tr>
<td>Development</td>
<td>4 Weeks</td>
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<tr>
<td>Quality testing</td>
<td>2 days</td>
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<tr>
<td>Documentation</td>
<td>1 Week</td>
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<tr>
<td>Write up final report</td>
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e. Objectives
- Create music streaming site
- Use log in and register validation
• Create album and artist pages, displaying all of each
• Be able to repeat and shuffle songs
• Have ability to create and edit playlists

Conclusion

a. In this project, I was able to complete the majority of the system that I wished to have from the beginning. My original goals for this project include create music streaming site, having the ability to log in and register with validation, create album and artist pages, and displaying a list of each on their respective pages, be able to repeat and shuffle songs, and have ability to create and edit playlists.

b. One of the main problems that occurred was the inability to create functionality for the user to update their email and password. I thought that I would be able to complete this very easily, but was unable to. For this version of the system, I thought it would be best to leave out until I can get it functioning properly. Another problem I encountered was creating the ability to make playlists. This was simply a lack of time issue and I hope to add this functionality before I add this site on my portfolio.

c. I learned a lot about PHP and JavaScript by doing this project as well as improving on my project management skills. I did not know much about creating a back end environment before I set this one up. I also learned a lot about object oriented programming and used those skills to enhance my project. I know all of this knowledge will be extremely beneficial in the near future when I look for a career and when I eventually start a freelance web development company. All of these skills are crucial to success as an entry-level web developer.

d. In the future, I would like to add the features that I was unable to in this version of the system. That would include having the ability for the users to update their email and password for their account. Another feature would be for the users to be able to make playlists and edit them as they wish. These two features would significantly add to the complexity and the overall flow of the site. I want to have these features available before I add this project to my portfolio.
Results

a. Interfaces at runtime
Blue Coast

**Most Played Songs**

1. **House**
   - Blue Coast
   - 4:19

2. **Photo Album**
   - Blue Coast
   - 3:16

3. **Downtown**
   - Blue Coast
   - 3:02

4. **Funk In Suspence**
   - Blue Coast
   - 4:16

5. **A Day To Remember**
   - Blue Coast
   - 3:15

**Albums**

- **Space**

- **Basketball**

- **Better World**

- **Drumming Live**

- **Relax**

- **Sweater Weather**

- **Volume**

- **Keep It Rolling**

- **Love**

- **The Last Night (3:15)**
b. Example of all Outputs

The login form opens the home page which is this page:
c. All error messages that the program generates