

# SongHaven

## Deliverable III

**North Dakota State University, Team :D**

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## User Manual

When accessing the site for the first time, users will notice that all they can do is view songs in the system, see recent messages, and the play queue. In order to access more of the site, users will be required to create an account through use of the registration page; accessible by clicking the “Register” button in the top right corner. This button is only visible when not logged in, and can be seen in the figure below.

*Figure 1: Not Logged In*

After successfully registering an account, users will be automatically logged into the website and forwarded to the last page the user was on. If the user already had an account, they can login by using the link in the top right area of the screen that says “Log In” as can be seen in Figure 1.

*Figure 2: Logged In*

Once logged in, other options will be come available. The user may then “vote to skip”, “log out”, and request songs.

**Vote to Skip:**

A logged in user is able to vote to skip a song. Each user can vote to skip only once per song. Voting is done by clicking the “Vote To Skip” button shown under the currently playing song in the “Now Playing” section, as can be seen in Figure 2.

Once three or more users have clicked on the vote to skip button, the current song in the queue will be skipped, and the next one will automatically begin playing.

**Messaging:**

If users are logged in, they can leave a message on the site. The 10 most recent messages will be displayed on the front page of the website. In order to view recent messages, reload the page periodically.

**Requesting a song:**

Songs can be requested by logged in users. A song can be requested by clicking the request link next to song in search results, or by clicking the request link next to a song listed on the “Songs” page, as can be seen in the figure below.

*Figure 3: Requesting a Song*

#### **Admin Controls**

If logged in as an admin, the user will have much more control over the system than a regular user. Logging in as an admin will provide users will access to: volume control buttons, “Skip Song” button, “Play/Pause” button, as well as full access to the database tables via the “Manage Songs”, “Manage Requests”, and “Manage Messages” pages. These features are displayed in the following figure.

*Figure 4: Administrator Properties*

## SongHaven Testing

As this project is largely Web Based, and it is extremely difficult and not usually fool proof to unit test a ASP.Net MVC project, as well as a project which consumes 3rd party audio libraries, we decided that instead of writing unit tests, we would manually functional test the system.

For each page we have laid out scenarios for which expected conditions must be met, for a test to be considered passing. For example, when viewing the navigation bar as an un-Authenticated user, we should be able to see links for the Home, Song, Register, and Login pages. We should now however be able to see links for New Song, Manage Songs, Manage Requests, Manage Messages, and Log-off pages. In addition we shouldn't see the user greeting.

### Web Application Tests:

Page or Feature	Action - State	Can See	Can't See
Navigation Bar	Viewing Not logged in	Home Songs Log in fields Register	New Song Manage Songs Manage Requests Manage Messages Log off User Greeting
Navigation Bar	Viewing Logged in	Home Songs New Song User greeting Log off	Manage Songs Manage Requests Manage Messages Log in fields Register
Navigation Bar	Viewing Administrator Logged in	Home Songs New Song Manage Songs Manage Requests Manage Messages User greeting Log off	Log in fields Register
Home	Viewing Home Not logged in	Messages Now Playing Request Queue	Vote to Skip Post a message Skip Song Volume up Volume Down Play/Pause Restart Song Player
Home	Viewing Home Logged in	Messages Now Playing Request Queue Vote to Skip Post a message	Skip Song Volume up Volume Down Play/Pause Restart Song Player
Home	Viewing Home	Messages	

	Administrator Logged in	Now Playing Request Queue Skip Song Vote to Skip Volume up Volume Down Play/Pause Restart Song Player Song List Post a message	
Register	Registering  Not Logged in	Account Setup Fields Song List Log in Register Account	User Greeting Log off
Login	Logging In  Not Logged in	Log in fields Song List Log in Register Account	User greeting Log off
Songs	Looking at Song List  Not Logged in	Search Song List	Request
Songs	Looking at Song List  Logged in or Administrator Logged in	Search Song List Request	
New Song	Adding song  Logged in or Administrator Logged in	Song Identification Fields Choose File Button Create File Button	
Manage Songs	Viewing  Administrator Logged in	All Song Details Edit Details Delete Search Search By	Save Button Back to list option Delete Button
Manage Songs	Editing  Administrator Logged in	All Song Detail Fields Save Button Back to List option	Search Search By Delete Button
Manage Songs	Details	All Song Details Edit	Save Button Delete Button

	Administrator Logged in	Back to list option	Search Search by
Manage songs	Deleting  Administrator Logged in	All Song Details Delete Button Back to List Option	Save Button Search Search By
Manage Messages	Editing  Administrator Logged in	Content Date Created Username Save Button Back to list option	Delete Button
Manage Messages	Details  Administrator Logged in	Content Date Created Username Edit Back to list option	Save Button Delete Button
Manage Messages	Deleting  Administrator Logged in	Content Date Created Username Delete Button Back to list option	Save Button
Manage Requests	Viewing  Administrator Logged in	Date Created Title Username	Save Button Delete Button Search Search by
Manage Requests	Editing  Administrator Logged in	Song field User Field Date Created Save Button Back to list option	Save button Delete Button Search Search by
Manage Requests	Details  Administrator Logged in	Song Date Created Username Edit Back to list option	Save button Delete Button Search Search by
Manage Requests	Deleting  Administrator Logged in	Song Date Created Username Delete Button Back to list option	Save button Search Search by
Manage Account	Logged In or	Current Log in Current Password Field	

	Administrator Logged in	New Password Field Confirm New Password Field Change Password Button	
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### **Song Player Testing:**

Scenario	Database State	Expected Result
Starting Song Player	No Request	Player idles, Checking for songs periodically.
User requests song	One Request	Player checks for request, finds request, and begins playing song
Song ends with an other song in queue	One Request	Player finishes first request, removes request from database, player checks for songs, finds new song and begins to play it
Song Playing Admin requests song skip or vote to skip succeeds	Skip Song Command in Database X Requests	Player stops playing the song, removes the request from the database, then begins looking for a new request
Request volume down	volume down command in db	Player lowers the volume
Request volumet up	volume up command in db	Player raises the volume
Request play/pause Music is playing	play/pause command in db	Player pauses music
Request play/pause Music is paused	play/pause command in db	Player plays music
Request restart	restart command in db	Player relaunches itself in another process then ends the original process. New Player resumes the activity of the old player (song being played will be restarted)

### **Features Successfully Implemented**

Features that have been successfully implemented in the SongHaven project include all of the user and administrator features referenced in the Software Requirements Specification document. The user features include account registration, a login page, music queueing, searching the music library, uploading files to the music library, messaging, and user skip voting. The administrator features include managing user accounts, administrator skips, and managing the queue.



## Limitations

The feature that has not been successfully implemented into SongHaven is the system feature of autofill defined in the Software Requirements Specification document. This feature would ensure that SongHaven fills the queue with music when no one is requesting songs. This way, the music player would constantly be playing, regardless of if users are manually queueing it.

## Peer Feedback

During our peer feedback, it was suggested that we could have included more comments within our code to make it easier to understand. The two particular features that the reviewing group wished to see more comments on were the home controller and song controller. Overall, we could have done more documentation.

## Plans for Next Phase

Features that could be added to the SongHaven project in the future include auto filling the queue to allow users to listen to random music from the library without manually queueing it. Other upgrades to the system could include a more graphically attractive design, a larger database, and the ability to read more than just mp3 or wav files. A convenient feature to be implemented would be having the message box automatically refresh, this would allow users to see new messages without constantly refreshing the page. In addition, the SongHaven could have the ability to search other sites such as GrooveShark or Spotify for music, allowing users to get music directly from these sources. Lastly, the SongHaven could obtain music licenses allowing it to become a functioning system that does not need to be a nonprofit educational project.

## Meeting Minutes

9/03/2014

Attendance:

Corey Ameson

Eric Krenz

Jordan Goetze

Christy King

Main Objective: To discuss initial project ideas and work on Deliverable 1.

Discussed:

\* Project design and requirements

- \* Web Interface design
- \* Server options
- \* Web Platform- Python Flask
- \* Object Relational Mapper (ORM)- PeeWee
- \* Database options- MySQL
- \* Playing audio- MPlayer
- \* Repository options- Tortoise and Git

#### Completed Tasks:

- \* Assigned group roles and responsibilities
- \* Began work on Deliverable 1 documents and presentation
- \* Designed a framework for the project
- \* Decided on languages and tools to use

#### Upcoming Tasks:

- \* Come up with a project title
- \* Develop a Gantt Chart
- \* Determine risk management
- \* Complete Deliverable 1
- \* Introduction to Python for Corey and Christy

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Date: 09/04/2014

#### Attendance:

Corey Arneson

Eric Krenz

Jordan Goetze

Christy King

Main Objective: To discuss initial project ideas and work on Deliverable 1.

Discussed:

- \* Project design and requirements
- \* Risk management
- \* Formatting ppt
- \* working on deliverable 1
- \* came up with project title

Completed Tasks:

- \* Came up with project title

Upcoming Tasks:

- \* Develop a Gantt Chart
- \* Complete Deliverable 1
- \* Introduction to Python for Corey and Christy

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Date: 09/07/2014

Attendance:

Eric Krenz

Jordan Goetze

Main Objective: Finish up deliverable 1 and work on ppt presentation.

Discussed:

- \* Project design and requirements
- \* Formatting ppt
- \* working on deliverable 1

Completed Tasks:

finish up deliverable1

finish up gantt chart

Upcoming Tasks:

\* Introduction to Python for Corey and Christy

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Date: 09/22/2014

Attendance:

Eric Krenz

Jordan Goetze

Corey Arneston

Christy King

Main Objective: Work on Deliverable 2 and power point presentation

Discussed:

\* Project design and requirements

\* Formatting ppt

\* working on deliverable 2

Completed Tasks:

Upcoming Tasks:

- Continue working on deliverable 2

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Date: 10/10/2014

Attendance:

Eric Krenz

Corey Arneston

Christy King

Main Objective: Work on Deliverable 2

Discussed:

- \* Project design and requirements

- \* working on deliverable 2

Completed Tasks:

Upcoming Tasks:

- Continue working on deliverable 2

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Date: 10/13/2014

Attendance:

Jordan Goetze

Corey Arneston

Christy King

Main Objective: Work on Deliverable 2

Discussed:

- \* Project design and requirements

- \* working on deliverable 2

Completed Tasks:

- Deliverable 2

Upcoming Tasks:

- working on building services

- Continue working on deliverable 3