Stack Underflow

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Short Summary

Motivation

Ever since the pandemic made travel almost impossible (also people who never had the ability to travel) people across the world felt lonely locked up in their houses. As a result, people who love travelling and other people in general felt disconnected from society and the world.

In addition, the importance of music and its true meaning to an individual is often overlooked in modern web applications such as soundcloud, spotify, facebook. Music brings out emotions and is often intertwined with past experiences such as travel, culture, history, and enjoyment.

Our platform is purely focused on providing users with a place to share music and explain its meaning to them from all around the world. Being dedicated to sharing these important personal thoughts, our users will get the chance to be heard without judgement that is often found in more popular websites.

Our Solution

Our application directly focuses on providing users with a place to share personal experiences through music. The main feature of our application is an interactive world map where a user will be able to see tags on multiple locations. These tags are posts people have shared from all around the world. Each tag contains an attached spotify song, an image and a personal message written by each user.

Within our application, a user can also explore different cultures and find new music from all around the world, as each song posted will provide its meaning and interpretation alongside. People are redundant to music types from other cultures that they are not interested in, our application makes it easier for users to find understanding within these new genres.

Problem Statements

1. There is no platform solely dedicated to users sharing stories and personal experiences through music.
2. Individuals often find it hard to find new types of music from around the world.
3. Similar social media platforms are visually messy, cluttered, and distracting to the users.
4. There is no platform presenting users with a direct visualisation of the real locations of the posts through a map.
5. People are losing their connection to their own culture as they are not exposed to their traditional music enough.
6. People who lack understanding of a particular culture often find it difficult to connect with their particular genre of music.

Target Audience

- Music Enthusiasts
- Artists
- People who want to get in touch with their culture
- People who want to explore the world through history
- Aspiring travelers

User Stories

Note: 1 Story Point (or SP) = 1 hour of work

Note on priorities: Denotes the order in which user stories will be completed, lower value means higher priority

Requirement 1.   Authentication:
As a user, I want to have an authenticated account so that I can access all the features on the site.

Feature 1.1 Sign up for a new account
Story 1.1.1:
As a User
I want to Sign up to the platform
So that I can access all the features on the platform

Priority: 2
Story Points: 6

Scenario: User tries to sign up to the platform

Given: I am at the sign in portal
And: I am not logged in
When: I enter my newly created username and password
And: Click on the "Sign Up" button
Then: I should be signed up to the platform
And: Should be redirected to my new personal dashboard

Feature 1.2 Log in and log out my account

    Story 1.2.1

        As a User
        I want to Be able to login with a user id and password
        So That I can access content saved and personalized for me

        Priority: 2
        Story Points: 4

        Scenario: User tries to sign into the platform

        Given: I am at the Login portal
        When: I enter the correct user id and password
        And: Click the "Login" button
        Then: I should be logged in to the platform
        And: Redirected to my personalized dashboard

    Story 1.2.2

        As a User
        I want to Be prevented from logging in with the incorrect credentials
        So That I can make sure that my account cannot be accessed without my user id and password.

        Priority: 2
        Story Points: 1

        Scenario: User fails to log in to the platform

        Given: I am at the login portal
        When: I enter the incorrect user id and password combination
        And: Click the "Login" button
        Then: An error pops up
        And: does not allow me to log in.

Feature 1.3 Reset my password if I forget my password

    Story 1.3.1

        As a User
        I want to be able to reset my password
        So that I don't lose my data if I forget my password

        Priority: 5
        Story Points: 6

        Scenario: User resets their password

        GIVEN: I am on the sign in page
        AND: I am not logged in
        WHEN: I click on the "Forgot Password" button
        THEN: I will be sent an email which I can then use to securely
            change my password

Feature 1.4 Link to my Spotify account

    Story 1.4.1

        As a User
        I want to link my Spotify account to my account
        So that I can access my Spotify playlists seamlessly

        Priority: 3
        Story Points: 5

        Scenario: User links their account to the app

        GIVEN: I am on the sign up page for the platform
        WHEN: I click 'Next' button
        THEN: I am redirected to the "Link to Spotify Account" page
        WHEN: I click "Link to Spotify" button
        THEN: A spotify OAUTH page will pop up
        WHEN: I log in to my spotify account on the page
        THEN: My spotify account would be linked to the platform

Requirement 2.   Account Management & Preferences:
As a user, I can use settings so that I can change my profile details and other settings based on my habit.

Feature 2.1 Change my password
    Story 2.1.1
        As a User
        I want to change my password
        So that I can keep my account secure

        Priority: 5
        Story Points: 3

        Scenario: User changes their password to "hunter2"

        GIVEN: When I am on the Profile page
        WHEN: I enter my new password (hunter2) in the password box
        AND: I click on the "Change Password" button
        THEN: My password will be updated to "hunter2"

Feature 2.2 Change my username
    Story 2.2.1
        As a User
        I want to change my username
        So that I can customize my appearance to other people on the platform

        Priority: 6
        Story Points: 3

        Scenario: User changes their username to "AzureDiamond"

        GIVEN: I am on the profile page
        AND: Under the "My Profile" tab
        WHEN: I enter my new username (AzureDiamond) in the username box
        AND: I click "Change Username" button
        THEN: My username will be updated to "AzureDiamond"

Feature 2.3 View notifications (comments, likes, titles)

    Story 2.3.1

        As a User

        I want to be able to check notifications

        So that I can be up-to-date on any comments, likes, or titles that I receive

        Priority: 6

        Story Points: 4

        Scenario: User views their notifications

        GIVEN: I am on the Profile page

        WHEN: I click "Notifications" tab

        THEN: I will see all the notifications in a list

Feature 2.4 View all my tags

    Story 2.4.1

        As a User

        I want to be able to check all my tags

        So that I review what I have shared in the past

        Priority: 4

        Story Points: 4

        Scenario: User tries to view all his tags

        GIVEN: I am on the profile page

        WHEN: I click 'My tags' tab

        THEN: I will see all my tags in a list

Feature 2.5 Set the website to light/dark mode

    Story 2.5.1

        As a User

        I want to be able to change the view mode

        So that I can switch to the mode that is suitable for the lightness of my environment

        Priority: 6

        Story Points: 8

        Scenario: User tries to change from light mode to dark mode

        GIVEN: I am on the settings page

        WHEN: I see light mode is on

        AND: I click on the switch

        THEN: The mode will be changed to dark mode

Feature 2.6 Change default setting for showing the side menu

    Story 2.6.1

        As a User

        I want to be able to change whether the side menu is displayed on default

        So that I can always have a clear view on the map on the homepage

        Priority: 6

        Story Points: 6

        Scenario: User tries to change the setting for side menu

        GIVEN: I am on the settings page

        WHEN: The side menu is set to be displayed on default

        AND: I click on the switch

        THEN: The setting will be turned off

Feature 2.7 Change the display language
Story 2.7.1
As a User

I want to be able to change the display language to my home
language

So that I can better under the website and the posts

Priority: 6
Story Points: 6

Scenario: User tries to change the display language

GIVEN: I am on the settings page
WHEN: I select a language that I want to use
THEN: The website will be displayed in the language I selected

Requirement 3.   Home page and dashboard:

As a user, I want to have a clear and visually satisfying homepage so that I can
see every button clearly.

Feature 3.1 Check the about page to learn about the website
Story 3.1.1
As a User

I want to check the about page of the website

So that I can get more information about the motivation and team
behind the website

Priority: 4
Story Points: 2

Scenario: User looks at what the website is about

GIVEN: I am on the home page and not signed in
WHEN: I click on 'More info' button
THEN: I will be redirected to the about page

Feature 3.2 Explore tags by generating random tags

    Story 3.2.1

        As a User

        I want to generate random tags

        So that I can explore random posts from all over the world

        Priority: 6

        Story Points: 6

        Scenario: User tries to generate random tags

        GIVEN: I am on the home page

        WHEN: I click on 'Generate random tag' button

        THEN: I will be redirected to a page where a list of random post is shown

Feature 3.3 Explore tags by panning over the world map

    Story 3.3.1

        As a User

        I want to be able to pan around the map

        So that I can explore different parts of the world and view people's tags

        Priority: 2

        Story Points: 8

        Scenario: User tries to view a tag on the map

        GIVEN: I am on the home page

        WHEN: I click somewhere on the map

        AND: hold onto the map

        THEN: I will be able to move my view around on the map

        WHEN: I click a tag on the map

        THEN: A new window will pop out showing the post I clicked on

Feature 3.4 Hide the side menu for better view

    Story 3.4.1

        As a User

        I want to hide the side menu (toggle list) to the side of the website

        So that I can have a better view on the map

        Priority: 4

        Story Points: 4

        Scenario: User tries to hide the side menu

        GIVEN: I am on the home page

        WHEN: I click on the 'Hide' button of the side menu

        THEN: The side menu will be hidden to the side

Feature 3.5 Get support from the help page

    Story 3.5.1

        As a User

        I want to check the help page

        So that it can help me navigate the site in case I need support

        Priority: 6

        Story Points: 4

        Scenario: User accesses the help page for support with sign up

        Given: I am on the sign-up page

        WHEN: I have trouble with entering details

        AND: I click on "Help" button in the navigation bar

        THEN: I will be redirected to the help page

Requirement 4.   Post creation:
As a user, I want to be able to create a post so that I can share music and my thoughts with other people

Feature 4.1: Add a message to a new tag
    Story 4.1.1
        As a user
        I want to be able to add a message to a new post I am creating
        So that I can explain some experience or thought I have

        Priority: 4
        Story Points: 4

        Scenario: User clicks on new post

        GIVEN: I click "create new post" in the homepage
        WHEN: I insert a message in the box and submit
        THEN: The post will contain the message I just added

Feature 4.2: Attach a Spotify link to a new tag
    Story 4.2.1
        As a user
        I want to be able to attach a Spotify song to my post
        So that I can share it with others

        Priority: 4
        Story Points: 4

        Scenario: Creating a new post

        GIVEN: I click "create new post" in the homepage
        WHEN: I click on "Add song"
        THEN: I will be redirected to Spotify where I can pick the song I
            want to include in my post

Feature 4.3: Attach an image to a new tag

    Story 4.3.1

        As a user
        I want to be able to attach an image to my post
        So that I can share a particular memory or experience

        Priority: 4
        Story Points: 4

        Scenario: Creating a new post

        GIVEN: I click "create new post" in the homepage
        WHEN: I click on "upload image" and choose an image from my computer
        THEN: The image will be loaded to my post

Feature 4.4 Discard my tag

    Story 4.4.1

        As a User
        I want to Be able to discard my tag
        So that When I am not satisfied with my tag I do not have to keep it

        Priority: 2
        Story Points: 2

        Scenario: User wants to discard a tag when making it

        Given: I am on the tag page
        WHEN: I click on 'discard' button
        THEN: The tag will be discarded
        AND: The window will be closed

Feature 4.5: Preview my tag

      Story 4.5.1

            As a user

            I want to be able to preview my post

            So that I can check if I have made mistake in my post

            Priority: 4

            Story Points: 4

            Scenario: User previews his post

            GIVEN: I have drafted my post

            WHEN: I click on 'Next' button

            THEN: I will be redirected to the preview page of my post

Feature 4.6 Publish my tag

      Story 4.6.1

            As a user

            I want to be able to publish my post

            So that I can share my post to people around the world on the platform

            Priority: 4

            Story Points: 4

            Scenario: User publishes his post

            GIVEN: I have previewed my post

            WHEN: I click on 'Publish' button

            THEN: I will be redirected to the page of my published post

            WHEN: I click on 'Back' button

            THEN: I will be redirected to the home page

Requirement 5.   Interaction:
As a user, I want to be able to interact with posts so that I can engage with other people around the world.

Feature 5.1: Like a post
    Story 5.1.1
        As a user
        I want to be able to 'Like' a post
        So that I can engage with other people's posts

        Priority: 4
        Story Points: 4

        Scenario: User clicks the Like button when viewing a post

        GIVEN: I am viewing a tag that I like
        WHEN: I click on "Like" button
        THEN: The tag will have my like added to it

Feature 5.2: Comment on a post
    Story 5.2.1
        As a user
        I want to be able to comment on a post
        So that I can interact with other people and share my thoughts

        Priority: 3
        Story Points: 6

        Scenario: User comments "Nice" on a tag

        GIVEN: I am viewing a tag that I like
        WHEN: I click on the comment box
        THEN: It gets highlighted
        WHEN: I type in "Nice"
        AND: Click "Comment"
        THEN: My comment gets posted under the tag, with the content
            "Nice"

Feature 5.3: Play song attached to post
    Story 5.3.1
        As a user
        I want to play the music attached in a tag
        So that I can enjoy new music people have shared and learn more
            about it

        Priority: 3
        Story Points: 6

        Scenario: User listens to the song "Lonely" in the tag

        GIVEN: I am viewing a tag with the song "Lonely" attached
        WHEN: I click on the "Play" button
        THEN: The song "Lonely" starts playing
        AND: The play button is replaced by a progress bar for the song

        Note: *Song "Lonely" by Lauv feat. Anne Marie*

Requirement 6.   Searching for posts:
As a user I want to be able to search for posts with filters I chose, so that I can find things that really interest me.

Feature 6.1: Filter for certain posts to appear on the map
    Story 6.1.1
        As a user
        I want to filter out the tags that are presented on map
        So that I can find the post that I'm interested in

        Priority: 4
        Story Points: 4

        Scenario: Searching for specific posts

        GIVEN: I am on the homepage
        WHEN: I zoom into a specific country
        THEN: I filter for a specific genre of music, culture or time of
            creation
        AND: I click confirm
        THEN: I will see music and posts based on what I searched for

Feature 6.2: Search for tags and music

    Story 6.2.1

        As a user

        I want to be able to search for tags based on music genre, language, date etc

        So that I can find explore music and tags based on these filters

        Priority: 4

        Story Points: 4

        Scenario: Searching for tags and music

        GIVEN: I am on the search page

        WHEN: I select the filters I want

        THEN: I will be shown posts related to my search only

Low-Fidelity Prototype

The Low-Fidelity Prototype document can be found in *Deliverables/LowFidelityFINAL.pdf* in the Github. The application used for our low-fidelity is Balsamiq.

Link: https://github.com/AD9000/Stack_Underflow/blob/main/Deliverables/LowFidelityFINAL.pdf

Inside the Low-Fidelity Prototype document, there are three diagrams:
1. Prototypes: The final LoFi prototypes depicting each screen on a separate page.
2. Lofi Storyboard Diagrams: A flowchart of the screens and the UI components that lead the user to different areas of the application.
3. Lofi Component Interaction Graph: A flowchart of the different components and how they are connected.

#	Feature	Depicted in Prototype Screen	Page
1.1	Register for a new account	Register	4
1.2	Log in and log out my account	Log In	3
1.3	Reset my password when I forget my password	Help Page	22
1.4	Link to my Spotify account	Register (spotify)	5-6
2.1	Change my password	Profile Settings - My Profile	23
2.2	Change my username	Profile Settings - My Profile	23
2.3	View notifications (comments, likes, titles)	Profile Settings - Notifications	25
2.4	View all my tags	Profile Settings - View My Tags	25
2.5	Set the website to light/dark mode	General Settings	27
2.6	Change default setting for showing the side menu	General Settings	27
2.7	Change the display language	General Settings	27
3.1	Check About page to learn about the website	About Page	21
3.2	Explore tags by generating random tag	Generate Random Tag	2

3.3	Explore tags by panning over the world map	Homepage(signed in)	7
3.4	Hide the side menu for better view	Homepage(signed in)	7
3.5	Seek help from the help page	Help Page	22
3.5	Search tags by filtering by music genre	Homepage(signed in)	7
4.1	Add a message to a new tag	Add a New Tag	17
4.2	Attach a Spotify link to a new tag	Add New Tag (Select song from Spotify)	15-16
4.3	Attach image to a new tag	Add a New Tag	18
4.4	Discard my tag	Add a New Tag	17
4.5	Preview my tag	Add a New Tag (Review)	19
4.6	Publish my tag	Add a New Tag (Published)	20
5.1	Like a post	Add a New Tag (Published)	20
5.2	Comment on a post	Add a New Tag (Published)	20
5.3	Play song attached to post	Add a New Tag (Published)	20
6.1	Filter for certain posts to appear on the map	Homepage(signed in)	7
6.2	Search for tags and music	Homepage(signed in)	7

High-Fidelity Prototype

The High-Fidelity Prototype files can be found in *Deliverables/HighFidelityChart.pdf* and *Deliverables/HighFidelityPages.pdf* in Github. These are the finalised designs of our application, where there were significant changes made from the low-fidelity to the high-fidelity. The application used for our high-fidelity is Figma.

Links:
https://github.com/AD9000/Stack_Underflow/blob/main/Deliverables/HighFidelityPages.pdf
https://github.com/AD9000/Stack_Underflow/blob/main/Deliverables/HighFidelityChart.pdf

In case the pdf is not clear, the link to figma directly is:
https://www.figma.com/file/IKdCm051jTcLyzq1aAX9R/High-Fidelity-Chart

The documents:
1. HiFi Pages: The final HiFi prototypes depicting each screen on a separate page.
2. HiFi Flow Chart: provides information in relation to the connections of each screen and how they interact with each other.

#	Feature	Depicted in Prototype Screen	Page
1.1	Register for a new account	Register	4
1.2	Log in and log out my account	Log In	3
1.3	Reset my password when I forget my password	Help Page	18
1.4	Link to my Spotify account	Register (spotify)	5
2.1	Change my password	Profile Settings - My Profile	23
2.2	Change my username	Profile Settings - My Profile	23
2.3	View notifications (comments, likes, titles)	Profile Settings - Notifications	20
2.4	View all my tags	Profile Settings - View My Tags	21
2.5	Set the website to light/dark mode	General Settings	22
2.6	Change default setting for showing the side menu	General Settings	22

2.7	Change the display language	General Settings	22
3.1	Check About page to learn about the website	About Page	17
3.2	Explore tags by generating random tag	Generate Random Tag	2
3.3	Explore tags by panning over the world map	Homepage (popped out side menu)	6
3.4	Hide the side menu for better view	Homepage	9
3.5	Seek help from the help page	Help Page	18
3.5	Search tags by filtering by music genre	Homepage(signed in)	7
4.1	Add a message to a new tag	Add a New Tag	13
4.2	Attach a Spotify link to a new tag	Add New Tag (Select song from Spotify)	15
4.3	Attach image to a new tag	Add a New Tag	13
4.4	Discard my tag	Add a New Tag	13
4.5	Preview my tag	Add a New Tag (Review)	14
4.6	Publish my tag	Add a New Tag (Review)	14
5.1	Like a post	Add a New Tag (Published)	16
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5.3	Play song attached to post	Add a New Tag (Published)	16
6.1	Filter for certain posts to appear on the map	Homepage (popped out side menu)	6
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