

Stack Underflow

SENG2021 - REQUIREMENTS AND DESIGN WORKSHOP 21T1
DELIVERABLE 1

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Table of Contents

| | |
|-------------------------------|-----------|
| Short Summary | 3 |
| Problem Statements | 4 |
| User Stories | 5 |
| Low-Fidelity Prototype | 19 |
| Hi-fidelity prototype | 21 |

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 understand 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/dev/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/dev/Deliverables/HighFidelityPages.pdf

https://github.com/AD9000/Stack_Underflow/blob/dev/Deliverables/HighFidelityChart.pdf

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 |
| 5.2 | Comment on a post | Add a New Tag (Published) | 16 |
| 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 |
| 6.2 | Search for tags and music | Homepage (popped out side menu) | 6 |