

HCI - Assignment n.2

Design and prototyping of an application using a human-centered approach

Final presentation and demo

Project Title: MusicHub

Group: João Gameiro, Juan Lessa, Pedro Abreu

Lab Class: P1

Introduction

MusicHub

- Music plays a very important role in people's lives, and it can be tough for musicians to share their music.
- Therefore, we aim to create an app that helps musicians share their music and most importantly connect with each other.
- We also intend to help musicians find places to perform which can be a tough task to perform.

Project Objectives

Insert project title here

- **High-level goals**
 - Develop a prototype for a system that allows musicians to interact with each other and share their music with other users.
 - Allow non-musicians to follow closely their favorite bands and artists.
 - Allow musicians and establishment owners to interact with each other.
- **Expected outcome**
 - We aim for a prototype application with a minimalist and intuitive interface



Personas

- **Musicians**
 - People who wish to share their music and find places to perform and other musicians to interact with
- **Establishment Owners**
 - People who search for artist to perform in their establishments/events.
- **Music Fans**
 - People who wish to follow their favorite artists and discover new music.
 - People who want to discover nearby performances



Persona 1

Persona

Establishment owner

Name, Age, Gender

João Batista, 52 y.o., Male

Job

Bar Manager at Praça do Peixe

Background/ Environment

He wants to have weekly music shows hosted at his bar

Problem

-> He struggles to find musicians/artists to weekly perform in his bar

-> He struggles to exchange contact information with artists

Needs

A system/platform that brings together upcoming musicians and facilitate contact exchange



Persona 2

Persona

Band Leader

Name, Age, Gender

Ana , 26 y.o., Female

Job

Full-time Musician (Singer)

Background/ Environment

Ana's band is going on tour this summer.
They want to find another band to tour with them and open all shows.

Problem

-> Ana doesn't know any musicians in her village

->She doesn't know how to find bands to tour with them

Needs

A way to search and get in touch with other musicians



Persona 3

Persona Singer beginning of her career

Name, Age, Gender Luiza 19 y.o., Female
Musician

Job Luiza is a young singer building her career, she lives in Porto, makes presentations in squares, tourist centers and nearby cities.

Background/ Environment -> Luiza doesn't know owners of establishments interested in hiring artists.

Problem -> Luiza doesn't have an efficient way to share her work

Needs A way to find and contact owners of commercial establishments, show her performances and schedule presentations

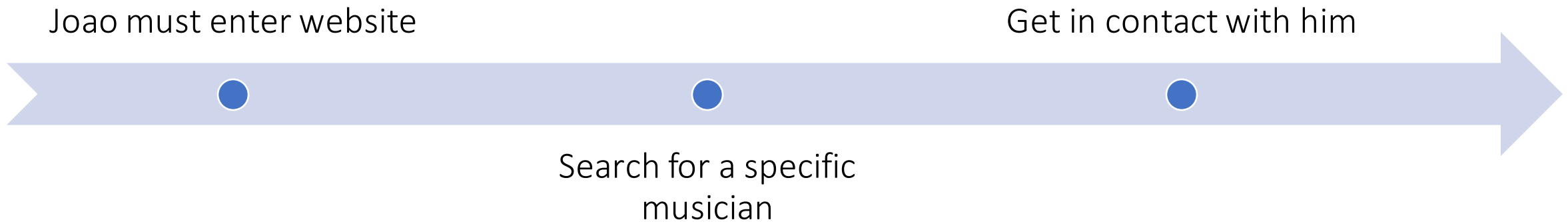


Scenarios

1 Approach an artist to perform on next week

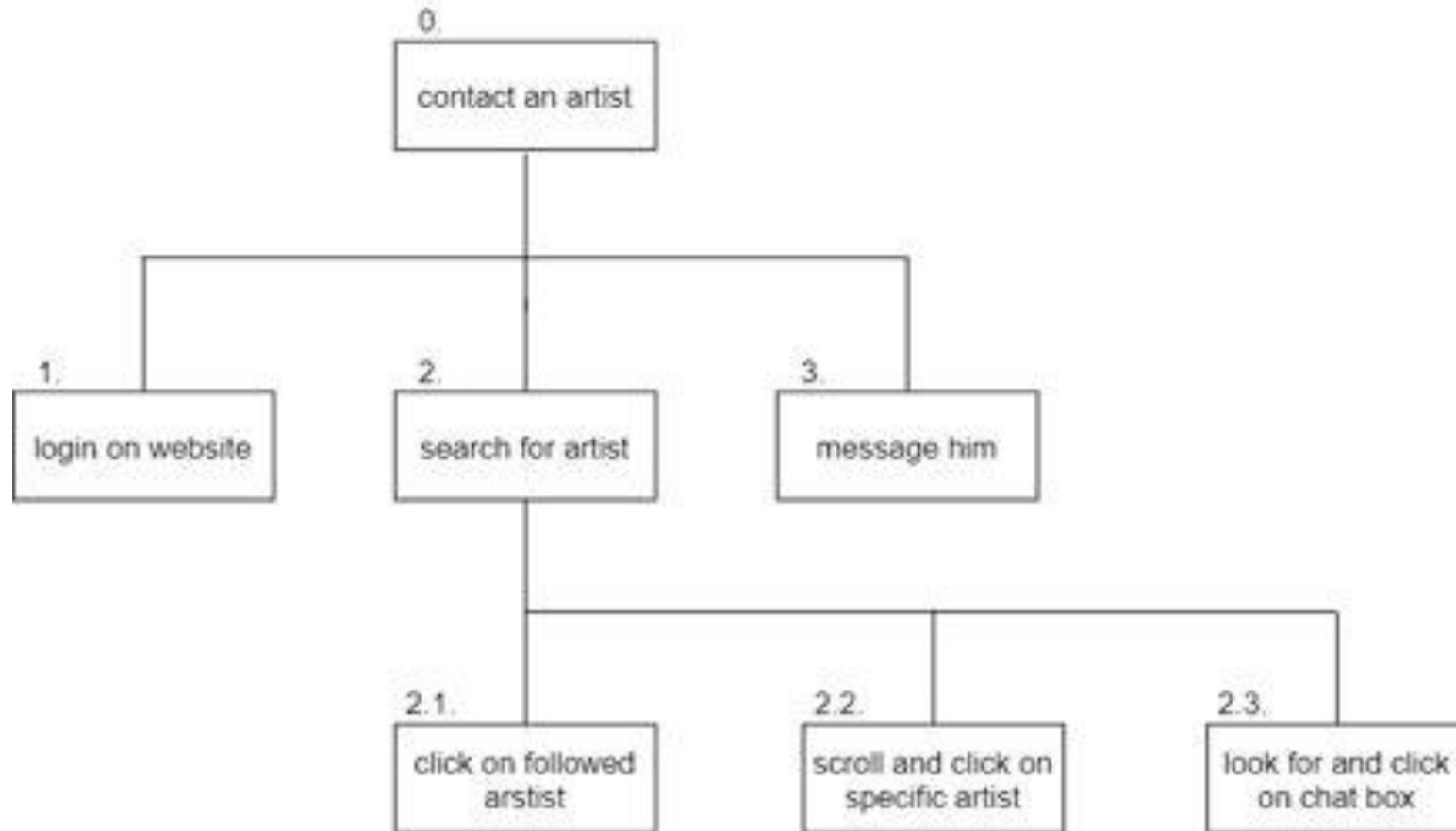
João Batista wants to contact a musician, that as already played in his bar, to perform again next week:

- > Without the platform, he would need to search for old messages (sms, email, etc...) to contact the artist.
- > This way, with few a clicks, he can find past musicians/artists who he was related to



Tasks

1 Approach an artist to perform on next week

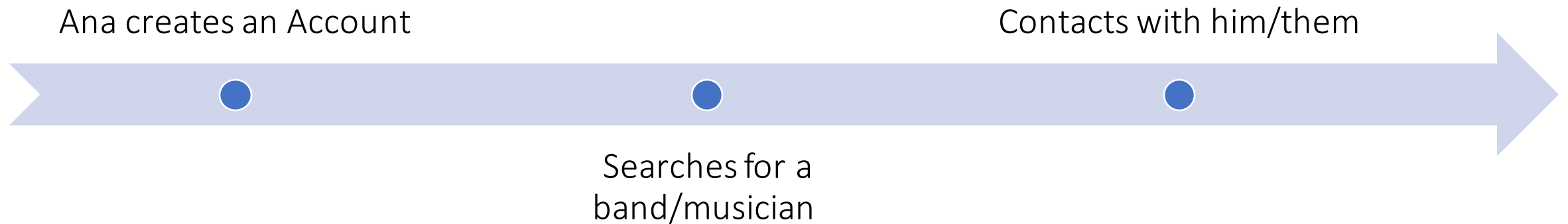


Scenarios

2 Approach a band open tour shows

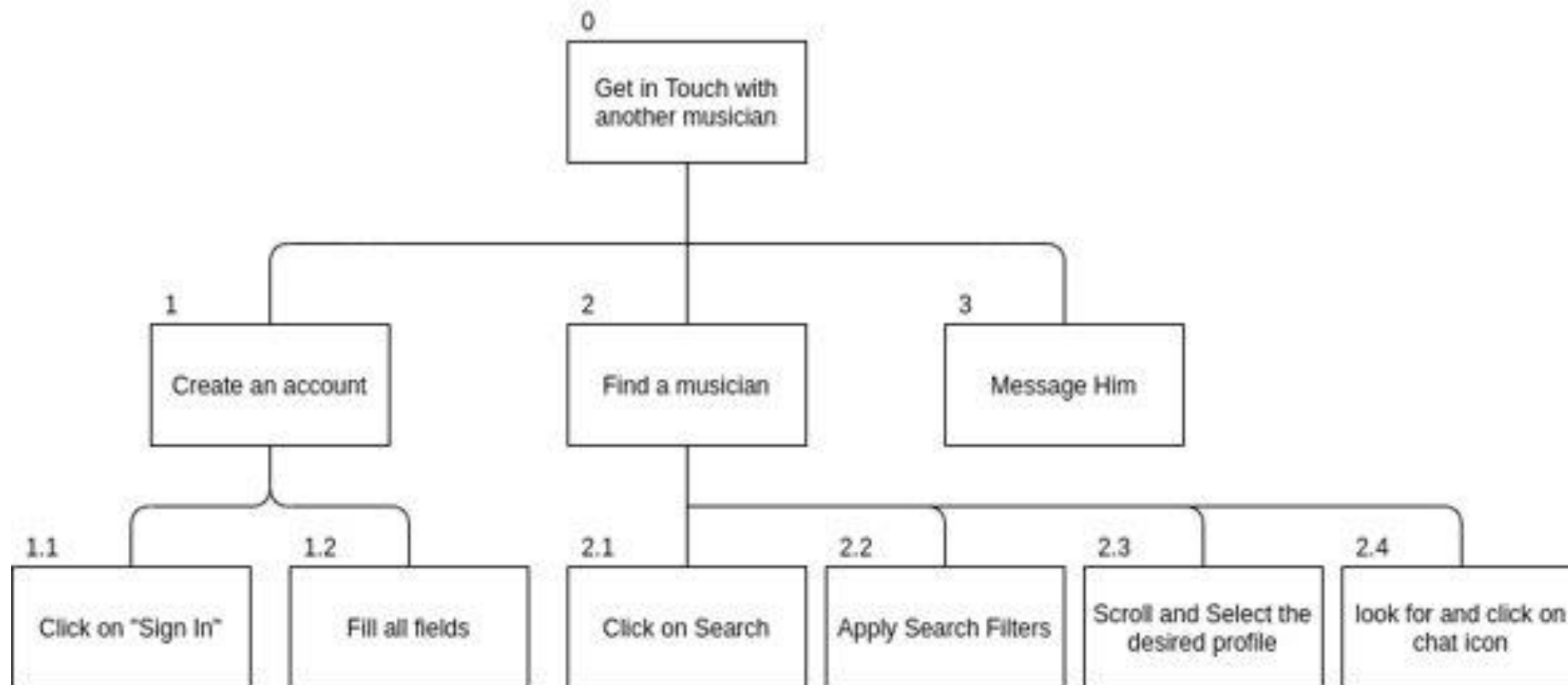
A wishes to find a band to open all the shows of her band's tour.

- Very hard to accomplish without the app because it implies that Ana must already have contact of other musicians or showbiz people.
- With the application, task becomes simpler, and the offer is larger



Tasks

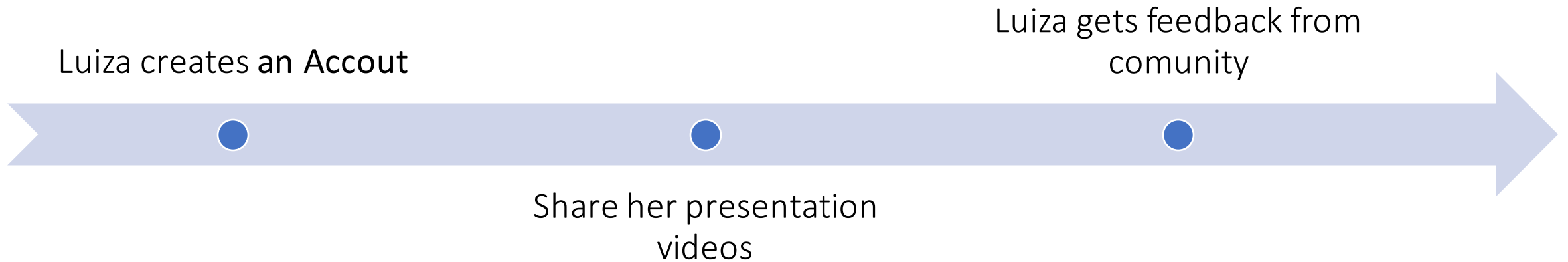
2 Approach a band open tour shows



Scenarios

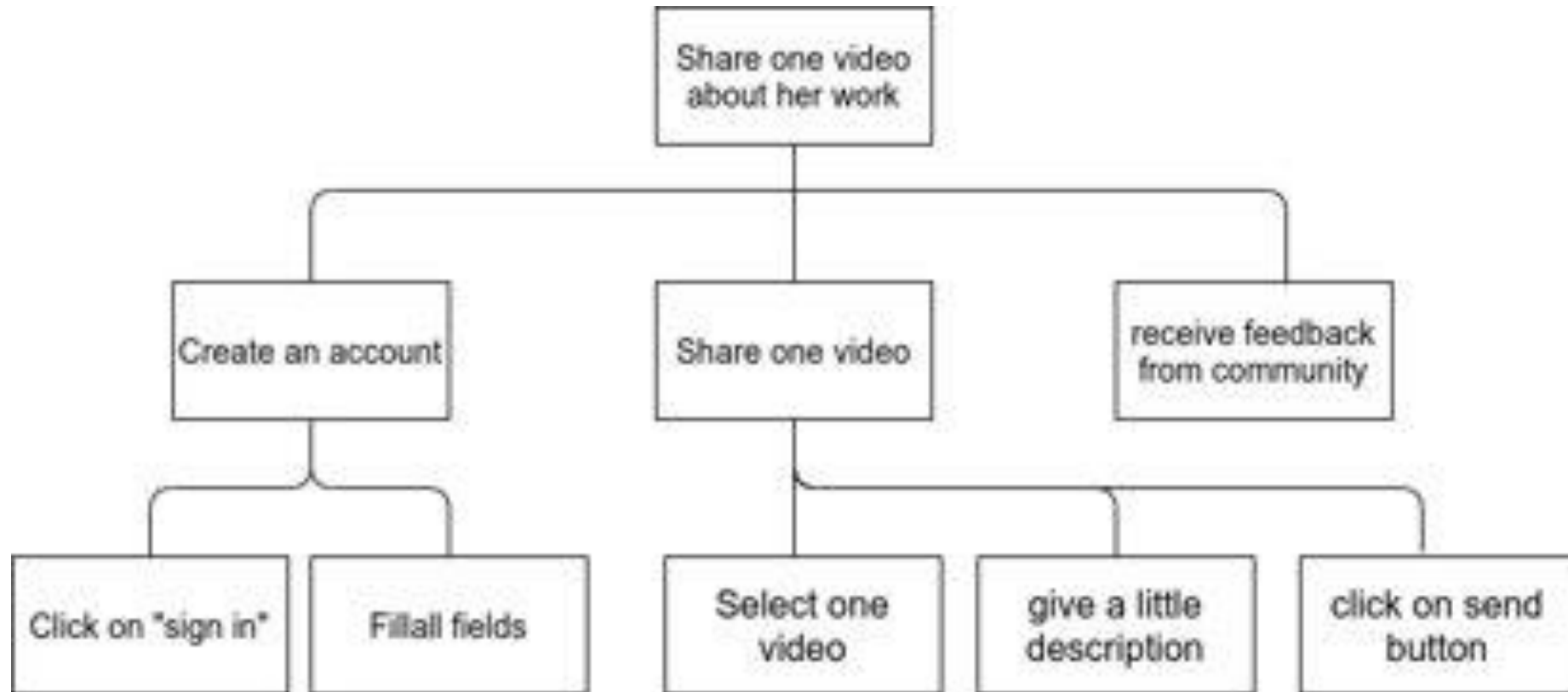
3 Publicize Presentations

Luiza wants one place to publish videos and audios about her last presentation:
-> This is an essential feature for music-oriented sharing platforms



Tasks

3 Publicize Presentations



Requirements

- Non-functional requirements

- Application must be persistent
- Design must be simplistic and intuitive
- Persistent and secure database
- Should have help documentation

- Functional Requirements

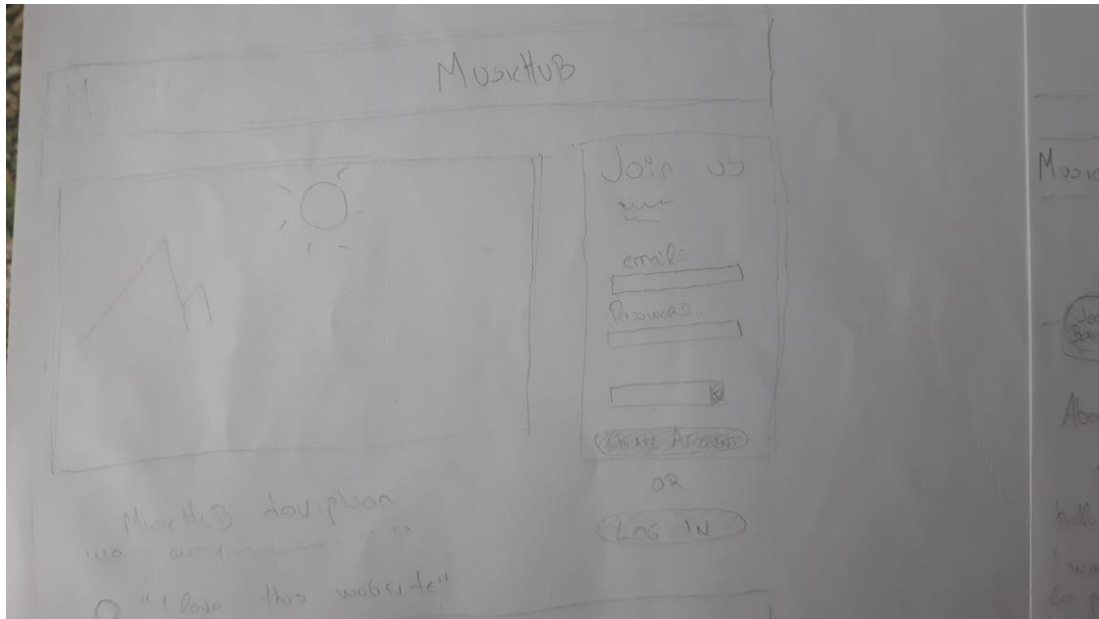
- Musicians and Establishment owners should be able to text each other directly
- Every user should be able to search for musicians and establishments by location
- Should be possible to follow musicians, check out their content and the events which they will perform
- There should be security and blocking mechanisms to prevent harassment situations



Low Fidelity Prototype (LFP)

MusicHub

- The low fidelity developed was developed in paper



Email

Password

Are you a:

☒ Musician

☐ Establishment

☐ User

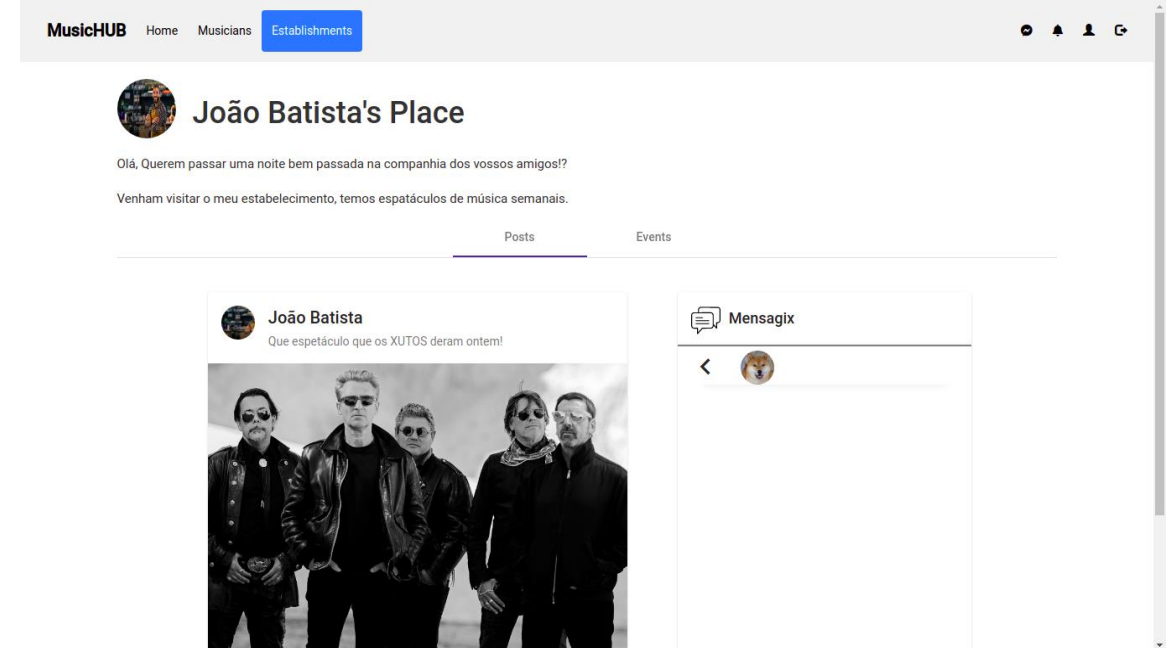
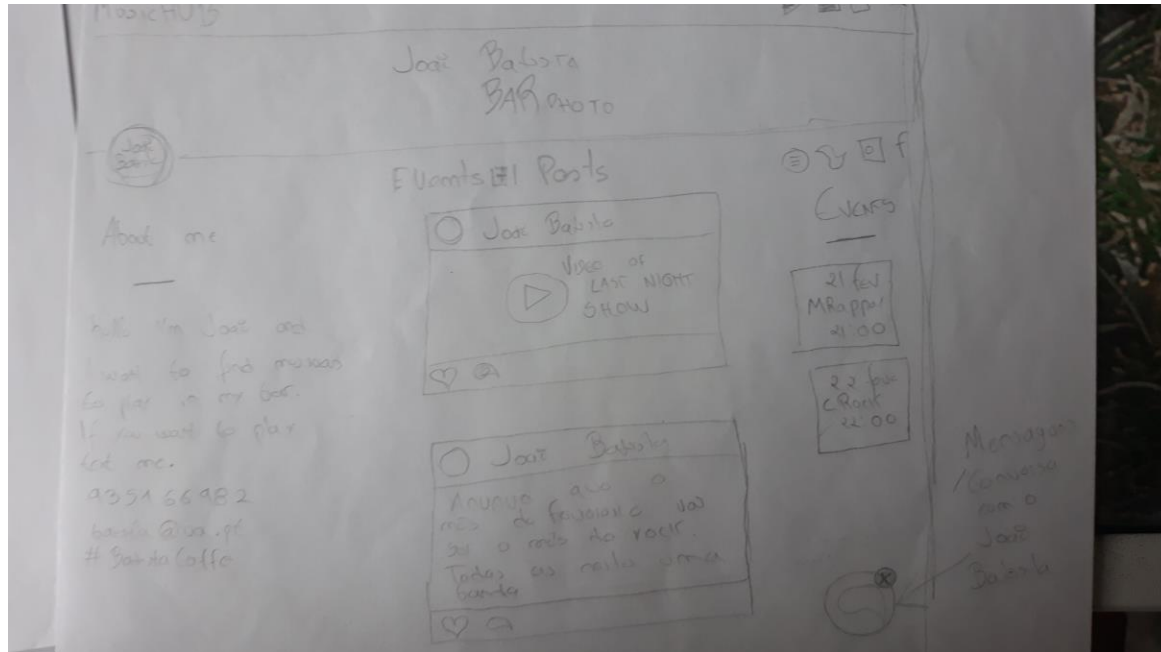
Register

[I already have an account](#)

The best
music
network
place

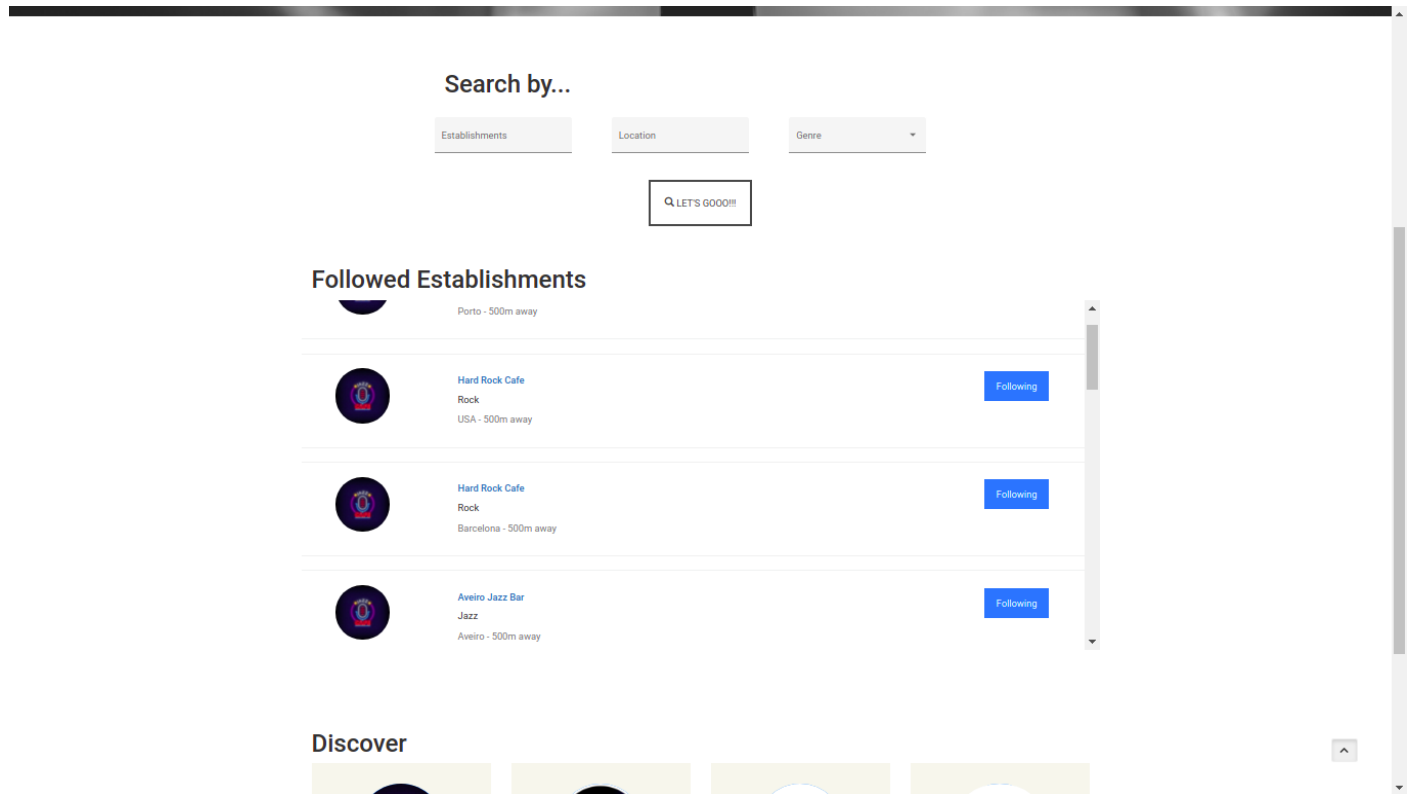
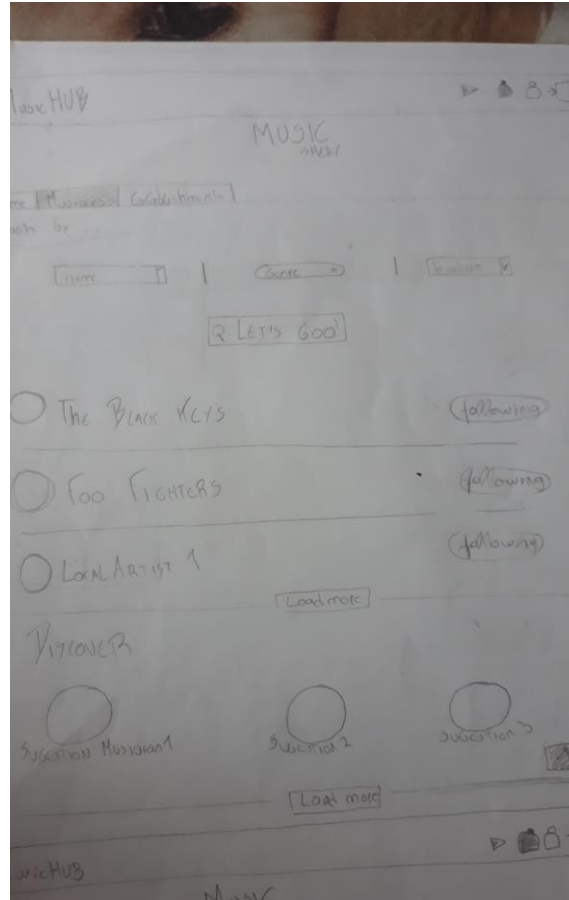
Low Fidelity Prototype (LFP)

MusicHub



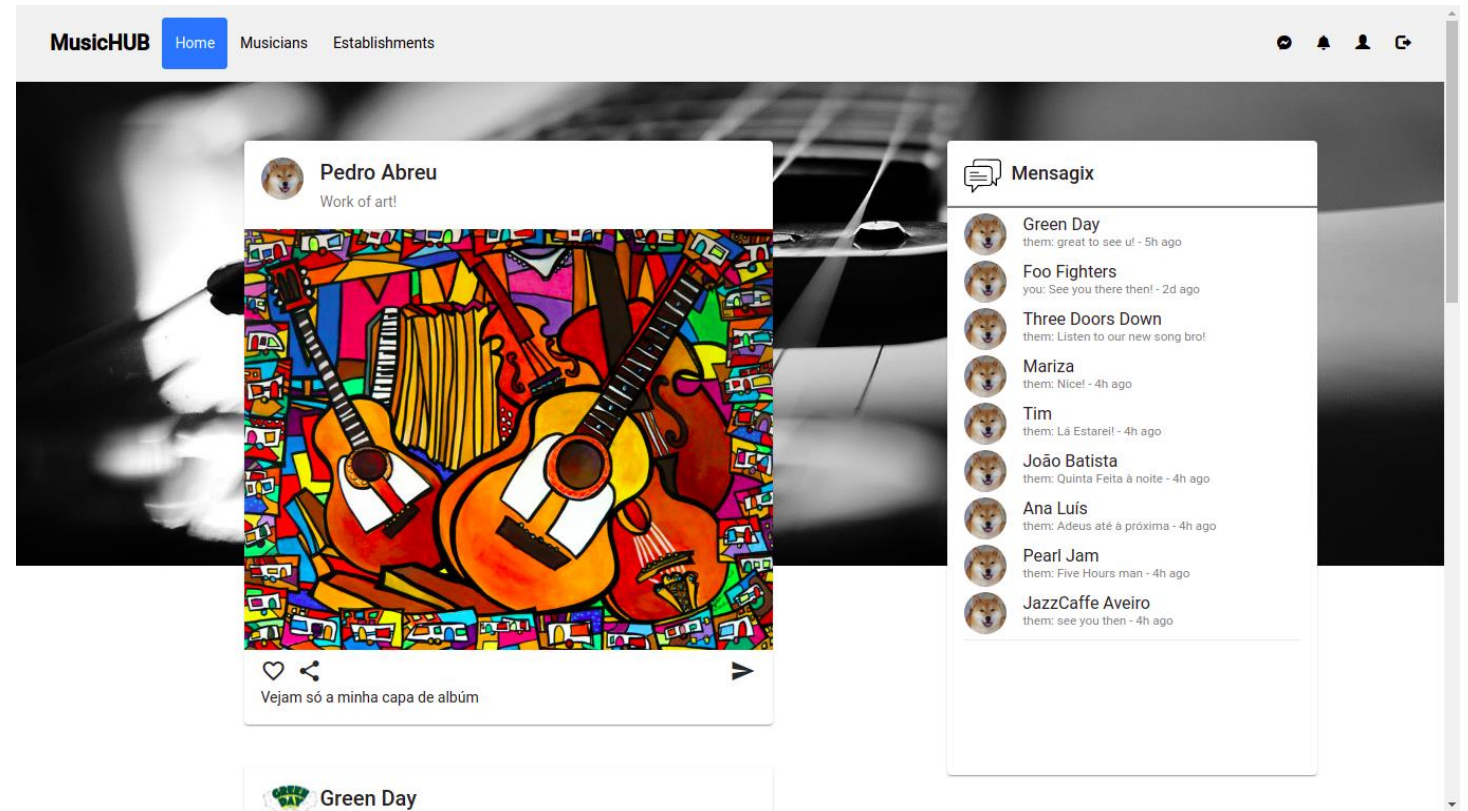
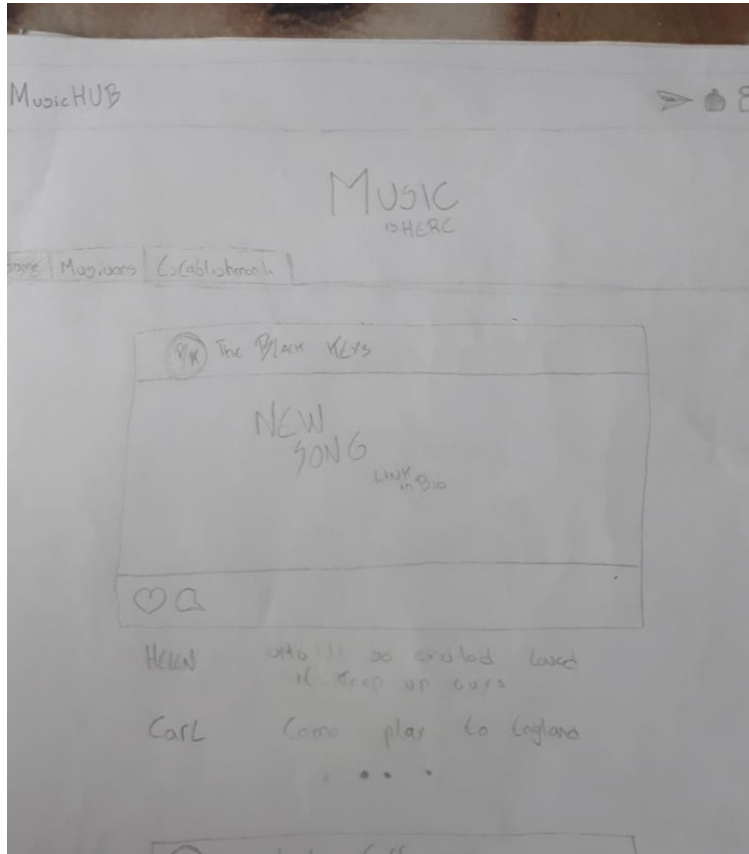
Low Fidelity Prototype (LFP)

MusicHub



Low Fidelity Prototype (LFP)

MusicHub



LFP User Evaluation

MusicHub



- On the paper prototype the main goal was to evaluate the 3 personas and the scenarios developed for them therefor:
 - Tasks for 3 personas:
 - Message a specific musician/establishment
 - Search for a specific musician/establishment
 - Add a new post
 - Additional evaluated tasks:
 - Follow a musician/establishment
 - Put like on a post
- 7 users (all male, one musician)
- Main Results
 - **Messaging musicians or establishments should imply less clicks.**
 - **Musicians and establishments profile page should be more directed to what the user want's to do with diferent "pages" for diferent actions.**

Platform Used for the functional prototype

MusicHub

- Angular
- We selected this technology because it was the proposed solution
- Web was preferred over mobile because the actions and tasks to perform on it would fit better on a web application.



User Evaluation of the functional prototype



- A functional prototype was developed in Angular:
 - The main goal was to evaluate it's usability
 - For this evaluation we decided to tackle the first two personas primarily
 - After each task completed the users specified how hard it was for them to complete the task (1 - Really Easy, 5 - Really Hard)

- After all tasks completed the users respond to a set of ten questions (1 -> Totally Agree, 5-> Totally Disagree)

Question1: I think I would like to use this system frequently?

Question2: I found the system unnecessary complex?

Question3: I thought the system was easy to use?

Question4: I think I would need technically support to use this system?

Question5: I found the various functions in this system well integrated?

Question6: I thought there was too much inconsistency in the system?

Question7: I would imagine people would learn to use this system very quickly?

Question8: I found the system very cumbersome to use?

Question9: I felt very confident using the system?

Question10: I needed to learn a lot of things before I could get going with this system?

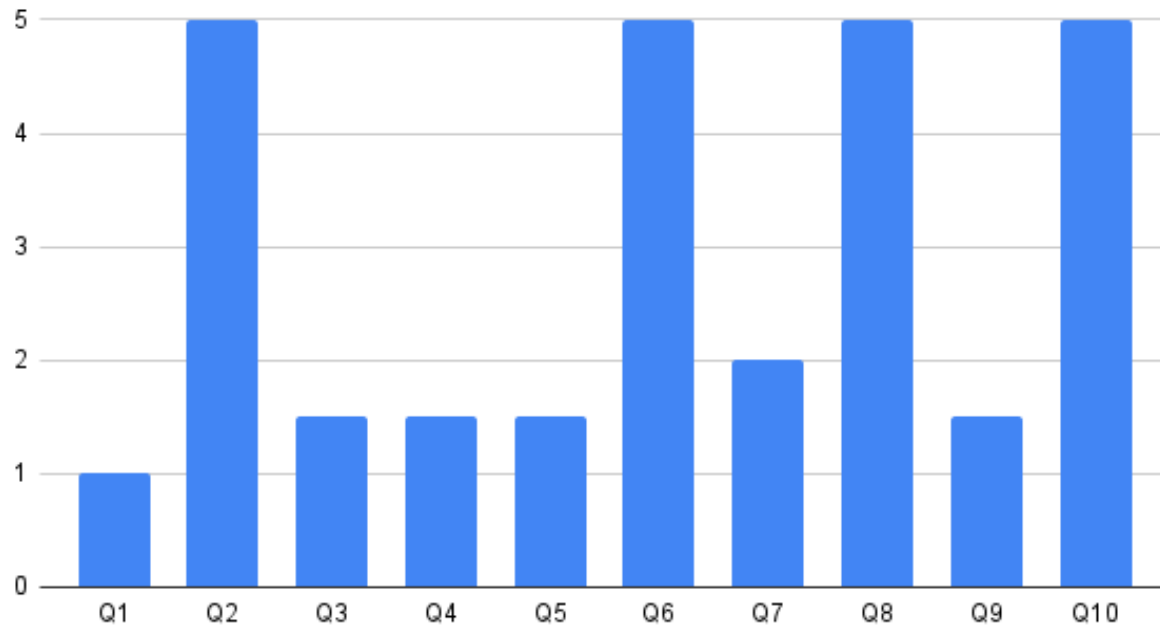
User Evaluation of the functional prototype



- 8 Tasks that were evaluated:
 - ☐ Login/Register
 - ☐ Message the musicians 'Foo Fighters'
 - ☐ Search by the musician Juan Lessa applying some search filters (Pop, Brasil)
 - ☐ Search by establishment 'João Batista Place' applying some search filters (Rock, Aveiro)
 - ☐ Go to musician Juan Lessa profile and try to obtain some tickets for concert 'Juan Lessa Live Galeria Cabaret'
 - ☐ Go to musician Juan Lessa profile and try to listen to his new song 'Another Morning'
 - ☐ Check my notifications
 - ☐ Put like on a post from musician Juan Lessa
- The user evaluation included 6 participants
 - 4 male and 2 female
 - From those 6, 4 we're musicians
 - From those 6, 4 we're experienced social network users

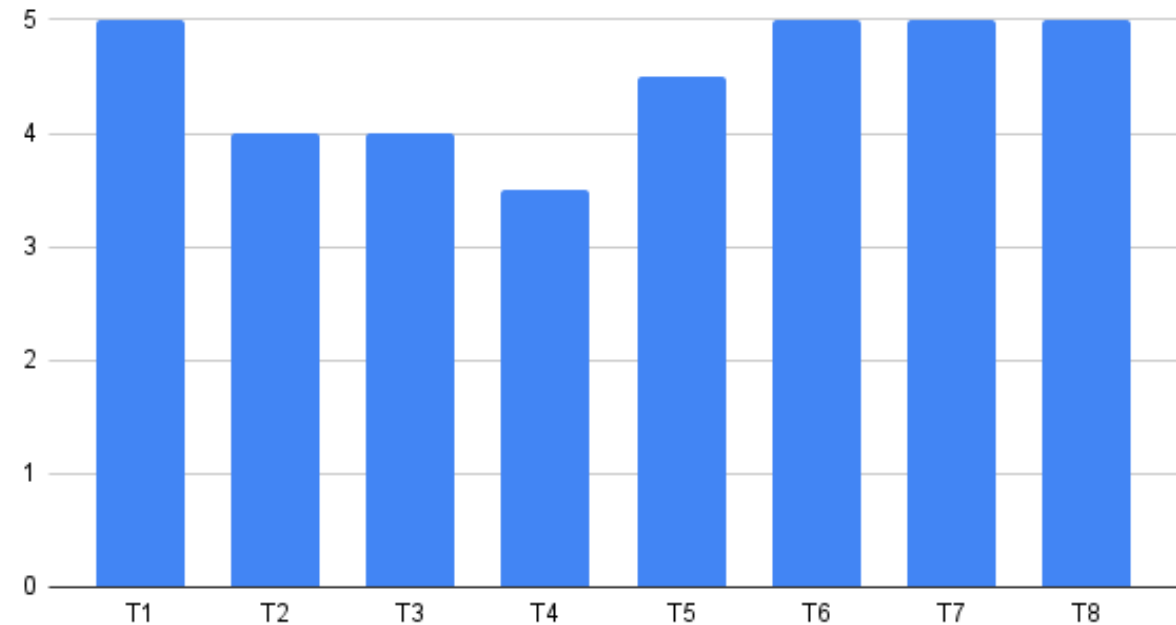
User Evaluation of the functional prototype

Média Pós Questionário



Média das respostas dadas a cada uma das questões do questionário
(1 - Totally Agree > 5 – Totally disagree)

Média da dificuldade das Tarefas



Média das respostas dadas a cada uma das tarefas
(1 - Really Easy > 5 - Really Hard)

User Evaluation of the functional prototype

- Results (specific tips given):
 - Language only in english can be a problem
 - Fonts for the website must be chosen carefully
 - Spotify and Youtube buttons size should be bigger
 - Buy tickets button should be more highlighted



Heuristic Evaluation

| Heurísticas | Problema | JG | JL | PA | Mediana |
|-------------|---|----|----|----|---------|
| 1 | JG - Botão de <u>follow</u> de um músico/estabelecimento não tem qualquer tipo de responsividade ao <u>click</u> na secção <u>followed artists/establishments</u> | 3 | 2 | 2 | 2 |
| | PA - Na secção <u>Home</u> , logo após o login, ao <u>scrollar</u> para baixo para ver + <u>posts</u> . A página fica um pouco vazia, podendo o utilizador "perder-se" no <u>webiste</u> | 1 | 3 | 2 | 2 |
| 2 | PA - <u>secalhar</u> a palavra <u>establishments</u> é um pouco pesada, poderia ser " <u>places</u> " ou " <u>caffes</u> ", para se aproximar mais da linguagem do dia a dia | 0 | 0 | 1 | 0 |
| 3 | JG - Carregar no botão de <u>logout</u> sem querer sai logo da conta PA - [Solução] Pedir uma confirmação antes de o utilizador poder dar log out | 3 | 2 | 2 | 2 |
| | JG - Função do botão de mensagem num <u>post</u> é pouco clara | 3 | 3 | 3 | 3 |
| 4 | JG - Redundância no <u>messagix</u> e símbolo do <u>messenger</u> na barra de tarefas | 0 | 1 | 1 | 1 |
| | PA - Na página dos músicos e estabelecimentos, a barra de pesquisa é tripla, seria melhor ser <u>única</u> (para as 3 características) mais discreta e dar mais destaque aos músicos/estabelecimentos que o utilizador segue | 1 | 1 | 3 | 1 |
| 5 | | | | | |
| 6 | PA - para o utilizador ir à página de perfil de um determinado músico, tem que ir à página dos músicos, procurar por ele e clicar em cima [Solução] o cabeçalho/imagem dos <u>post</u> e dos contactos da <u>chatbox</u> levar diretamente à página de perfil do músico -> SOLVED | 3 | 2 | 3 | 3 |
| 8 | JG - Chat de <u>messenger</u> na página de perfil não deveria ter todos os contactos, mas apenas o do músico/estabelecimento | 2 | 3 | 3 | 3 |
| 9 | JG - Pesquisa poderia apresentar um <u>pop up</u> a indicar que tal aconteceu -> SOLVED | 1 | 1 | 2 | 1 |
| 10 | JG - Não existe documentação de ajuda | 3 | 3 | 3 | 3 |
| | PA - Na secção de introduzir um novo <u>Post/Evento/Musica</u> , não diz em lado nenhum, as dimensões máximas da imagem, formatos de imagem suportados, limite de palavras num <u>Post</u> | 3 | 1 | 3 | 3 |



Demo

MusicHub



Future work

- Build a strong e persistent backend
- Add new functionalities
- Improve frontend based on user feedback

Test everything with new user tests

Effort of each group member

- João Gameiro – 33%
- Juan Lessa – 33%
- Pedro Abreu – 33%



Acknowledgments

- We would like to acknowledge all the participants that participated on the two tests of our low fidelity prototype and of the functional prototype

Bibliography