
# Guess the Song

## Design Reflections

Februar 2023 - Franziska Link

## 1. Human Computer Interaction

### Persona

A persona represents a typical fictional user of a product, which is in development. It contains a description of the users personality, his goals, wishes, needs and frustrations. Sometimes it also includes a short biography and a photo of the person.

Personas are used by the developers or designers to better understand the stakeholders needs and how to satisfy them. While developing the product, it is important keeping a typical stakeholder in mind, to develop the product according to his needs.

The following scenario and persona helped me to design a better music app, because i was able to figure out, what motivates Malik and what's relevant for him. So i had the opportunity to develop something relevant for him. The Application should help to connect with friends and also should recommend him new songs, for his band.

In summary, the persona and the scenario helped me to understand the main goals of the stakeholders to design for their goods and to satisfy their needs.

### Scenario of Use

Already in the morning, after Malik is waking up, he puts on his headphones, opens the music app and selects in his own generated playlist a motivating, powerfull soundtrack, to start the day, feeling good. While listening music, he prepares his breakfast. After having breakfast, he takes the subway and is on his way to school. Meanwhile Tim is checking his latest music-game-round, whether he won or not. Unfortunately he lost in the last round, that's why he definitely wants to win this round. He starts a new round and listens to the music, he has to guess.

After work, he takes the subway to do the grocery shoppings. On the way home, he listens to tracks recommended to him. That's how he gets to know new songs for the next band rehearsal, which he adds to his playlist.
In the evening, after dinner, he continues the game and starts a game with his friend Max. While playing the game, they like the best songs, which are automatically added to a playlist. The playlist is located in his library and in the home screen. Malik and Max can now both listen to the playlist. After winning the last round, Malik is happy and goes to bed.

# PERSONA

Age: 15
Occupation: pupil
Residence: Stuttgart

## Malik

### Biography:

Malik is pupil and wants to become a music teacher later. In his freetime he listens to rap, pop or african music. With his friends he likes to play Computer games or sometimes they go bouldering together. He also plays the guitar in a band - Music has always been important for him. Once a week he rehearses with his band for the next performance. Besides playing the guitar he also plays Djembé - a westafrican mug drum. This drum is his pride and joy. He got it from his grandfather from Gambia.

### What frustrates him

His untidiness
If he has not enough time to practise his instruments
If he loses the computer game

### What motivates him

Listen to music
Play concerts
If he wins the computer game
Sport
Friends

### Personality:

Introverted — Extroverted
Activ — Passiv
Thinking — Feeling
Judging — Perceiving

### Technologie:

IT & Internet
Software
Mobile Apps
Social Networks

### Hobbys:

guitar
Computer games
Bouldering
Meeting friends
Listen to music
Djembé

## Iterative Design Approach

The  iterative design approach is a principle of the user centered design based on a cycling process of prototyping, understanding the users,  developing and  evaluating the product. The cycle will be repeated multiple times, with the goal getting closer to the final design. It's important to obtain feedback of the stakeholders and optimize the design regarding their experiences with the prototypes. In every iteration, the developers and designers also should consider the feedback of the last iterations.

## High- and low-fidelity prototyping

With the goal, getting closer to the final design of the music app, i started with a paper based prototype, by scribbling with pen and paper to visualise my first ideas. The marvel app was a good tool to connect all the screens and get a first impression how the navigation could look like. Then i designed a wireframe, which helped me to realize how the game could work. Finally  in the high-fidelity prototype i focused on the final details, like the concrete design.

## Hybrid or Native app?

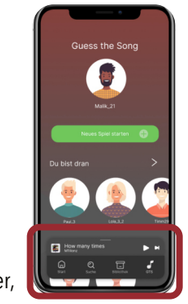
Native Apps are developed for one specific operating system. For Android the developers use Android Studio and for iOS Xcode. The performance of Native Apps is better, than from the hybrid ones and the access to hardware functions like the camera or the fingerprint is much easier.
Hybrid apps are developed for all operating systems, so you just have to implement the app once. Technically they are coded with HTML, CSS and JavaScript.

I would prefer to develop a native app, because the design guidelines from iOS and Android are different and in this way the app always would  observe the standards.

# 2. Material Design Guidelines

## Shadows

In the physical world objects cast shadows and reflect light. This principle should also be considered designing an app.
In the music app the Player is located on a closer layer than the rest of the screens. So i decided to put a shadow under the player to make sure, that the user has the impression, the player has another elevation.  When the user wants to open the proper player, an overlay is opened, which also has a shadow during the opening process.




## Physical Properties

According the Material Guidelines Material can't pass through material. Thats why the navigation bar and the player are always on fixed position and in the foreground.

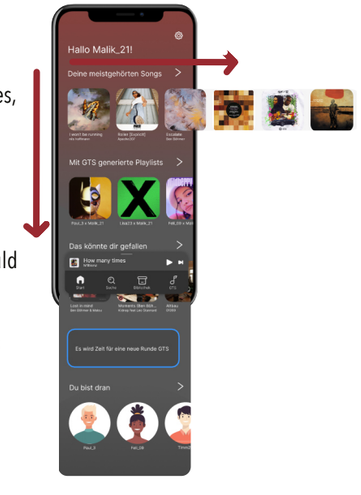

Material can also change opacity, thats why i changed the opacity of the album cover in the first screen.


## Attributes: Surface positioning and movement

The player and the navigation bar have a fixed position, while the rest of the surface mostly is scrollable vertically. Some content is scrollable horizontally, like on the home screen the playlists.

## Conclusion

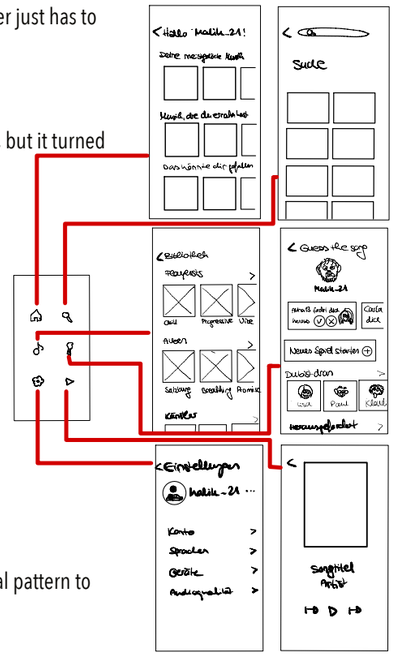
I have abided a few of the material guidelines, such as the shadows, the physical properties, transforming material, surface positioning and movement.
But there are a lot of other guidelines for example the surface opacity, on which i haven't paid enough attention to.  It could be nice to set the opacity of the navigation bar and the player lower. In this case the user would be able to see, whats behind the player. I also could use a Scrim for the surroundings of the player. It would help to make the content in the background less prominent. So i've used some guidelines, but i could improve the details and pay more attention on some guidelines, mentioned above.



## 3. Navigation

### Navigation Solution

In my app GTS the user also wants to switch spontanously from the home screen to the search screen, without clicking a lot. But being in the search screen for example, the user should just get an overview of the possible genres he can consume. According to this affordances, i've decided to use a combination of both navigation patterns. The main navigation pattern is fully connected, but the navigation pattern from the main screens to the secondary screens is hub and spoke. In the game area i also used the modal panel like during the game. In this time, the user just has to figure out the songs and can't navigate to another screen.



In the beginning i also tried to use hub and spoke for the main navigation, but it turned out to be too laborious and too slow, because of the number of clicks.

### Conclusion

In my opinion fully connected is a good navigation pattern for usability apps, because it is quiet effective and fast. It is also intuitive, because a lot of music apps like spotify or amazon prime are already using this Navigation pattern.
In retrospect i actually would rather have tried something new. GTS isn't just a usability app, it's also a game. And that's why i would've loved to try a different navigation pattern in in the games screen, like the sequencial pattern to gamify it more. I also could have used more animations.

## SmartWatch Prototype

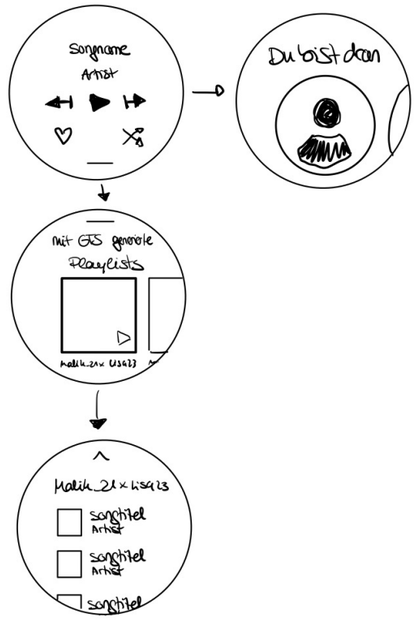
### Main functions

The main functionalities of GTS are the music player, the game and the playlists generated from the games. Because of the small smartwatch screen, i've decided to realize just the player, the generated playlists and an overview of the current games.

### Navigation pattern for the smartwatch app

In my opinion the sequencial navigation pattern is suited way better than the other ones. In this pattern, a sequence of screens will be linked together with Back/Next links and the user can swipe easily from one screen to another. This is very efficient for a smartwatch, because the screen is quiet small and there is no space for a navigation bar for the fully connected pattern. Because of the few functionalities , the hub and spoke pattern doesn't fit either. In this case, there should be one page, leadingto all the other pages. This could be quiet inefficient with three spokes, because the user always has to come back to the hub to change to another spoke.

## Scribbles




## High-fidelity prototype

https://www.figma.com/proto/6vPZPybVLyAkXJRg42Yit0/Untitled?page-id=0%3A1&node-id=1%3A2&viewport=503%2C528%2C1.13&scaling=scale-down&starting-point-node-id=1%3A2

## Final reflection

For me the lecture Mobile Interaction Design was pretty interesting, because i've learned a lot about navigation patterns and how to build a prototype with figma in a professional way. It was also special, because we had to develop the prototype in an iterative design process. The given feedback of my friends, was quiet helpful to optimize the design and the navigation. I've also learned how important it is to begin with a paper prototype, just to get a quick impression how it could be designed and to experiment with different navigation patterns. Later in the process, changing something is more complex, than with pen and paper.

In summary it was fun to develop a prototype for a music app from scratch and i was able to improve my design skills.