NBNP

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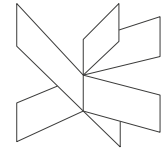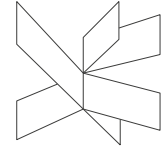## Software Technology Engineering Semester 2
16/02/2022

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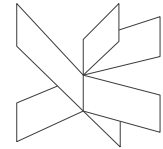# Table of content

Appendices (including Group Contract)

1 Background description

Today a lot of music apps strive to achieve a better music quality (Anon., 2022b), rather than work on the functionalities of the said apps. Studying the feedback of various music app users, we concluded that a lot of those apps do not meet the expectations when it comes to functionalities like display of lyrics and highlight them, sound design, shuffle playlist, putting the app to sleep when not used, download music/listen offline means of using playlist functionalities in general and if some of those features are around, they come at a cost of a monthly membership.

As a general user it is hard to find apps that have lyrics for all the songs and to be able to change them, a good example will be Spotify (Anon., 2022d) which recently added lyrics to their app, but unfortunately not for all the songs and also without a monthly membership the app is very bloated by ads and some features are disabled. Tidal, for example, comes with a lot of features but because of that, those require a monthly membership to be able to use the app. None of the mentioned apps have lyrics when in offline mode.
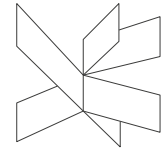
Those things don't go very well with the youth since it is the biggest consumer audience for music. Because of the very young consumers, not all of them want or have the means to pay to get specific or all the features, and some of them might find it inconvenient or hard to use. Moreover, it became more trending on social platforms to lip-sync or sing along to their favorite songs, doing karaoke and the ability of the music app to provide highlighted lyrics for the song without copyright strike might be a strong factor when choosing a daily driver app for music.

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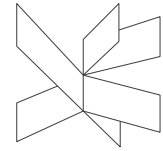**VIA University College**

2 Problem Statement

The user want to play music at a respectful quality, organize the music in playlists, and also provide every song with lyrics.

➢ How to make users to listen music?

➢ How to convince people to use?

➢ How to deal with copyright?

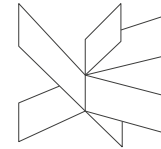Bring ideas to life
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3   Definition of purpose

The purpose is to help the users get better satisfaction when people want to do a karaoke night with friends.

4   Delimitation

- We will not include choose quality of the song

- We will not include a function to change lyrics

- We will not make the music downloadable

- We will not highlight lyrics while the song plays

5   Methodology

As methodology we will use Scrum (Anon., 2022c) since it's a very optimal way of organizing workflow, team tasks, and also this will ensure that we always have a done product at hand in case the deadline is close. Our process will be based on UP methodology and Scrum. In the inception phase we will prepare basis for the project and possible architecture solution together with design trade-offs, identifying risks, and coding of initial project plan. In our elaboration phase our product owner will provide us with the needed requirements and use cases in order to reduce their impact on final product. In the construction phase the design of the system is finalized and refined and the system is built using the basis created during elaboration phase. The construction phase is divided into multiple sprints, for each sprint to result in an executable release of the system. The final sprint of construction phase releases fully completed system which is to be deployed during transition phase. And the final phase transition where the final project phase delivers the new system to its end-users.
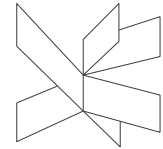
With scrum the process is broken up in smaller pieces compared to waterfall

First when we start creating the product,

- we do just enough planning to get started with (the basic functionality/features)
- we build what was planned
- we test and review and get ready to ship (to ship means that it's basically bug free in that state and can be delivered to the customer as it is)
- when this cycle is complete, we end up with a potentially shippable product
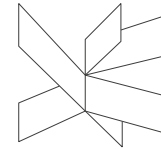
Our project team will be consisted in:

- one product owner – Dan Sebastian Ceapa
- one scrum master – Matas Armonaitis
- two developers – Dragos-Daniel Bonaparte and Chiril Luncasu

6   Time schedule

Phases:	Inception	Elaboration	Sprint 1	Sprint 2	Construction	Sprint 3	Sprint 4	Sprint 5	Transition	Deadline
	24/02	14/03	15/03	22/03	10/05	11/05	18/05	23/05	30/06	02/06

Time

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7   Risk assessment

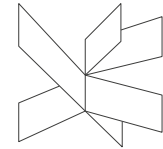| Risks	Likelihood Scale: 1-5 5 = high risk	Severity Scale: 1-5 5 = high risk	Product of likelihood and severity	Risk mitigation e.g. Preventive- & Responsive actions	Identifiers	Responsible
Logical flaws	3	5	15	Coding in pairs, and plenty of testing.	Logical flaws – the program does not work as intended.	Dragos and Matas
Database problem	3	5	15	Having a backup database with essential information for the program	Program cannot fetch information from the database	Chiril and Dan
Copyright	4	4	16	In the program mention the creator of the song and make the music not downloadable	We get email about copyright strike	Matas

8   Sources of Information

Craig LarmanApplying UML and Patterns –An Introduction to Object Oriented Analysis and Design and Iterative Development.Third Edition, 2004Addison Wesley ProfessionalISBN: 0-13-148906-2 Connolly & Begg:

Database Systems: A Practical Approach to Design, Implementation, and Management

Scrum:(Anon., 2022c)

Background Description resources:(Anon., 2022b, Anon., 2022d, Anon., 2022e, Anon., 2022a)

Unified Process: (Osis and Donins, 2017)

Anon. 2022a. *Anyone else think Spotify is too expensive? : spotify*. [online] Available at: <https://www.reddit.com/r/spotify/comments/mqkdh/anyone_else_think_spotify_is_too_expensive/> [Accessed 2 March 2022].

Anon. 2022b. *Best music streaming services 2022: free streams to hi-res audio | What Hi-Fi?* [online] Available at: <https://www.whathifi.com/best-buys/streaming/best-musicstreaming-services> [Accessed 2 March 2022].

Anon. 2022c. *Introduction to Scrum - 7 Minutes - YouTube*. [online] Available at: <https://www.youtube.com/watch?v=9TycLR0TqFA&ab_channel=Uzility> [Accessed 2 March 2022].

Anon. 2022d. *Spotify Revenue and Usage Statistics (2022) - Business of Apps*. [online] Available at: <https://www.businessofapps.com/data/spotify-statistics/> [Accessed 2 March 2022].
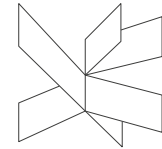
Anon. 2022e. *TikTok User Statistics (2022)*. [online] Available at: <https://backlinko.com/tiktok-users> [Accessed 2 March 2022].

Osis, J. and Donins, U., 2017. Software Designing With Unified Modeling Language Driven Approaches. *TopUML Modeling*, pp.53–82. https://doi.org/10.1016/B978-0-12805476-5.00002-2.

Appendices

Group contract

Group name: NBNP
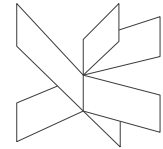
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The following terms/rules have been discussed and agreed by all of our members regarding cooperation and conflicts that may occur on the way:

- Participation: We agree to participate in all the tasks, socialize with each other and feel good while working.
- Communication: Mainly on discord and physical meetings, alternatively we use messenger and ultimately phone calls.
- Meetings: We agree to meet on every Wednesday with some exceptions and with consent from every member we shall meet at least one more time per week.
- Conduct: We agree to be active in the group, willing to work and finish tasks before the deadline. We shall vote every idea of any members to have the satisfaction of being heard.
- Conflicts: If we get into argues, we shall end the conflict at once and stop it from escalating.
- Deadlines: Every member agreed to be active and respond before each deadline with their work.
- Consequences:
    1. If a member of the group doesn't show up to the group meeting more than 3 times without explanation, he buys drinks to everyone.
    2. If a member doesn't want to work, he gains one warning, and if he manages to get 3 warnings, the group can talk with the supervisor in order to kick him out from the group.
    3. If the member of the group is rude to other members without any valid reasons, after 3 warnings, he buys cake.

Group member's name	Student ID	Signature
Chiril Luncasu	315171	

Matas Armonaitis	315263	
Dan Sebastian Ceapa	315162	
Dragos-Daniel Bonaparte	315261	