**Listen Up**

**Research Document**

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# Introduction

This document is about the research done to get answers of list of questions. These questions are related to the understanding new things and getting new ideas to be used in ListenUp project.

# Research Questions

## Problem: Data to be stored

### Major Question: What data should the software store?

#### Minor Questions

##### 1: What user data should be stored?

Methods:

* Competitive analysis
* Explore user requirements
* Security test

User email, username, and password.

##### 2: What details of main component need to be stored?

Methods:

* Competitive analysis
* Explore user requirements
* Data Analytics

Currently software is storing song info data, artist info data, user info data(incudes their playlists, liked playlists and liked songs).

##### 3: How to determine relevancy of the data stored?

Methods:

* Competitive analysis
* Explore user requirements
* Data Analytics

Data usage is checked throughout the whole application.

## Problem: Quality of the code

### Major Question: How to determine quality of code?

#### Minor Questions

##### 1: What is SonarQube?

Method: Literature study

SonarQube is a software system which supplies with automated testing of bugs, code smell and quality of codes.

##### 2: How to use SonarQube?

Method: Literature study

Going through slides and researching through Google.

##### 3: How to connect SonarQube with git using yaml file?

Method: Literature study

The localhost:9000(SonarQube) has the tutorial for it.

Methods:

* Code review
* Unit testing
* Root cause analysis

**Major 5: How this application is better than its competitor?**

Methods:

* Benchmark test
* Available product analysis

**Answer:** It is not.

**Major 6: How can this application be extended?**

Methods:

* Brainstorm
* Explore user requirements

**Answer:** Currently application can only do simple crud functionalities. In near future it will be able to perform interesting actions.

**Major 2: How to use React and connect the front-end to back-end?**

**Minor 1: What are the functionalities of JavaScript that are important to learn?**

Method: Literature study

**Answer:** Researched the whole W3School. Currently important to learn how to operate with arrays and some of the basic functionalities

**Minor 2: How to use axios?**

Method: Literature study

**Answer:** Going through demos and samples of code.

**Major 3: What are DTOs**

**Minor 1: Why DTO?**

Method: Literature study

**Answer:** Increases security and reduces data usage.

**Minor 2: How to convert DTO to model and vice versa?**

Method: Literature study

**Answer:** Going through demos and samples of code.

# Conclusion

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