CS (Comfort Sound)

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Spring 2021’

VC1B

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# Abstract

This program uses sound to provide psychological comfort in various situation. While working, studying, and sleeping, users can find and choose the appropriate sound in all accessible situation.

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# Project Details

* Why? – Hearing is one of the human senses exposed to the outside world and a sensory organ that plays a very important role in changing an individual’s psychological state. Sound also helps improve human efficiency and concentration. For example, ‘white noise’
* What? – This project will help users relax their psychological and physical fatigue and tension by playing appropriate sounds according to their mood. Various sounds are needed to operate these functions. For example, sounds present in various fields, such as the sound of firewood burning and the sound of making drinks at cafes, are needed for this program. Existing programs provided users with simple curiosity and temporary psychological satisfaction by recording human voice closely and clearly. However, this program will consist of sounds that can be heard comfortably in daily life, not noise. Also, It will also include each frequency-specific sound that helps memory and concentration.
* Who? – There is no specific target for this program. The program will be available to anyone in need. However, it will be used mainly by people with sleep disorders or students.
* Where? – This program will initially be available as a web application, but mobile applications for Android and iOS will be produced over time.
* How? – Users access the website, access the category they want, and listen to the sounds.
* When? – The web application and android application will be completed within the 2021 spring semester.

## Executive Summary

Using sound, it relieves tension and increases concentration when working or studying. It also helps people with sleep disorders.

## Technical overview of the project

This program will run using APIs from YouTube and open sources.

## Background

There is a sound program called MC square in Korea. This program uses frequency waves to help users improve concentration and overcome sleep disorders. However, this program has the disadvantage of having to buy a dedicated device. When I was a high school student, I received the help of this program and showed outstanding academic performance. Recently, I had a sleep disorder, but I overcame it by listening to some sounds for YouTube while sleeping.

However, there is a disadvantage that user has to find and listen every single time. Therefore, I thought it would be nice to have an application that can compress a lot of content in one place, so I planned to build this program.

### Literature Review

Many kinds of sounds have been uploaded on YouTube, and I will use as many APIs as possible without infringing copyrights.

Distinguished research will also be cited to highlight the effects of sound on the individual’s body or mind.

### Objectives

A system implementation that causes the sound to play and stop for a user-specified amount of time.

Implementation of the ability to add favorite sounds in an App.

### Expected Outcomes

## Obstacles & Risks

Since I used to code using JAVA, it may be difficult to code using Kotlin for android application. In addition, the use of Javascript or Jquery in developing Web application is likely to suffer from limited experience.

# Software and Hardware Technology Requirements

## Hardware Requirements

Intel core i7 (2.3 GHz)

12GB RAM

250GB SDD

Android Smartphone

## Software Requirements

Windows 10

HTML

JavaScript

CSS

Android Studio

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## Architecture

In web applications, you can enjoy contents using PC and mobile version.

Mobile applications will run in a format similar to a typical music application (apple music, spotify), but there will be no user-searching function. The system will be implemented so that users can find the sound they want to find by dividing the items by category.

# Milestones and reporting

## Project Management

Discuss the project 30 minutes daily with the supervisor.

The direction and improvement of the project are included in this discussion.

## Tasks

## Estimated Timeline

~ March 15: Collect APIs from internet

~ March 31: Finish to develop Web-site (Demo)

~ April 30: Finish to develop mobile application (Demo, Android)

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# Delivery

## Deployment

I am planning to register the website distribution and application in the market.

## Testing

Briefly describe 3-5 test cases that you would like to ensure that your system can meet at the completion of the project.

## Documentation & Source Code

Briefly describe any documentation and source code you’ll have prepared by the end of the project.

# Biographical Sketch

DONGRYUL KIM – Project Manager

HYUNJIN KIM - Supervisor

**Proof read your proposal.** You should not have any of the previous instructions in the proposal. Please make sure that you are not violating copyright, IP, or patent laws.

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