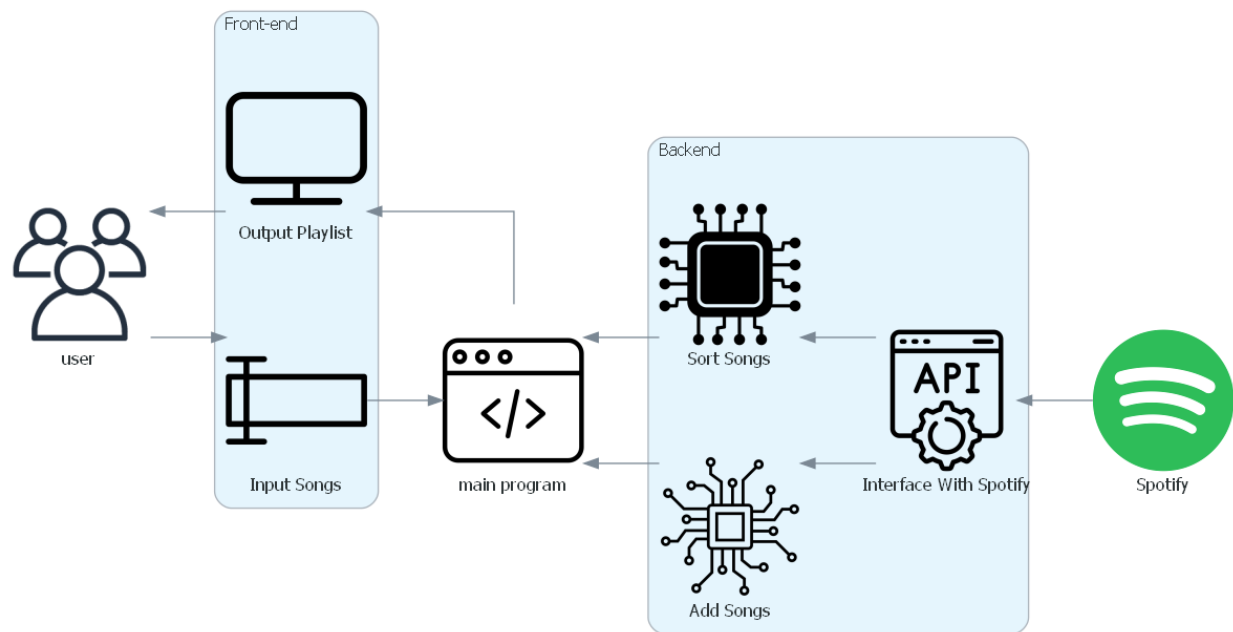System Description

Simmer the Toad

COSC 4950: Senior Design I

Delivered 10/25/2022

General overview of systems:

We will have a frontend that the user interacts with to, at minimum, 1) input songs and 2)

receive a playlist of songs. The backend will use get data from Spotify to sort the songs by genre

and add songs if the genres are too different.

System

Subsystems:

In particular, the backend will likely function in the following manner: 1) plot the songs in genre clusters from Spotify, 2) find a short path that includes each song, and 3) if the path goes through a genre without a song, then add at least one new song from that genre cluster.

Backend

Plot a path through clusters including every song from list.

If path goes through cluster without a song, add song from that cluster.

Plot Songs

Songs Sorted into Playlist

Smooth Playlist of Songs

Plot song list in genra clusters.

Send Playlist

main program

use data imported from spotify

API

Interface With Spotify

Subsytems