# <u>Controlling My Speech</u>

I will start by saying that this is an app being created for stutterers (or people with speech impediments of any kind). Personally, I have been a stutterer for my entire life, and have spent many hours with speech pathologists, working tirelessly on my speaking ability. It is a grueling journey, where you spend much of your day trying to figure out something so *simple* like talking. *Simply* speaking for stutterers can feel like navigating an intricate maze. Going through speech therapy is hard, and doing it virtually is even harder.
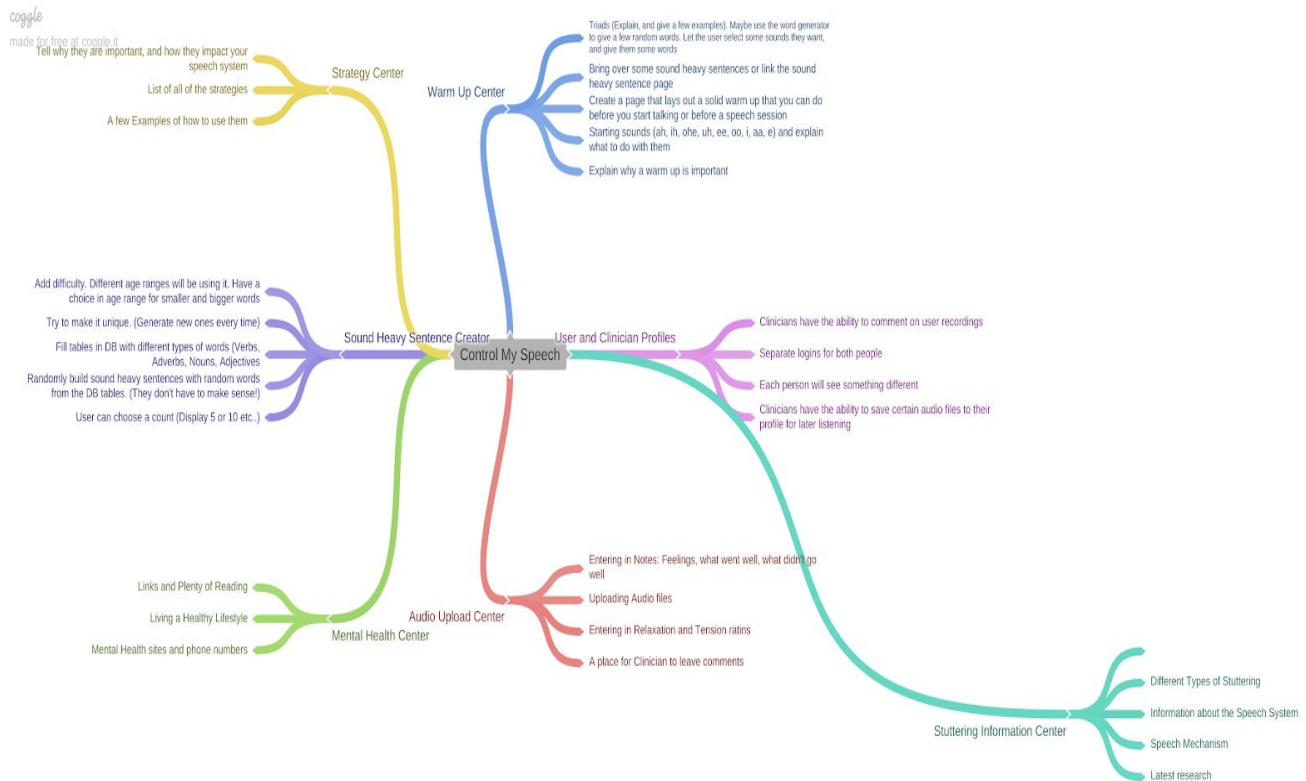
Ever since my very first speech session during quarantine, this idea has been stewing in my brain. There are many things that I would like to accomplish with this application but the main thing is making stutterers comfortable in every way possible. Let me be clear: **This app is not to be a replacement for seeing a speech pathologist**. If the speech session is the shot, then let this be the chaser. Dumb alcohal comparisons aside, it is meant to be a place where you can go after your session to continue improving and working on your craft.

Taking notes virtually, all while trying to focus on talking can be hard. I want to provide information about speech, so the client can learn supplemental knowledge outside of a session to optimize their speech experience. A big part of controlling your speech is recording yourself speaking, and playing it back to see how you sound, what you can improve on, and most importantly, what sounds good already!

One thing I have learned over the past few months: sharing your audio recordings over zoom sucks! You either have to email them (which files can be too big) or play them from your phone over zoom (not cool). Even if you manage to email your audio files, the clinician still has to download them, store them on their computer, and match your relaxation rating, fluency rating, and notes you send them to the audio file. This is the main driving force behind my app. This is what caused me to start coding. I wanted a place where I could upload my audio files, along with the specific ratings, as well as some notes and have it be displayed on one single page.

Now this is obviously the main feature, and the one I started with, but not the only one. I will outline the features later on, in a separate section, as this section has been long enough. I hope this gave you a little insight into my extreme passion behind this app, and a little of the direction where I want to take it. **New ideas are always welcome!**

# MY VISION

**Strategy Center**
- Tell why they are important, and how they impact your speech system
- List of all of the strategies
- A few Examples of how to use them

**Warm Up Center**
- Triads (Explain, and give a few examples). Maybe use the word generator to give a few random words. Let the user select some sounds they want, and give them some words
- Bring over some sound heavy sentences or link the sound heavy sentence page
- Create a page that lays out a solid warm up that you can do before you start talking or before a speech session
- Starting sounds (ah, ih, ohe, uh, ee, oo, i, aa, e) and explain what to do with them
- Explain why a warm up is important

**Sound Heavy Sentence Creator**
- Add difficulty. Different age ranges will be using it. Have a choice in age range for smaller and bigger words
- Try to make it unique. (Generate new ones every time)
- Fill tables in DB with different types of words (Verbs, Adverbs, Nouns, Adjectives
- Randomly build sound heavy sentences with random words from the DB tables. (They don't have to make sense!)
- User can choose a count (Display 5 or 10 etc..)

**Control My Speech**

**User and Clinician Profiles**
- Clinicians have the ability to comment on user recordings
- Separate logins for both people
- Each person will see something different
- Clinicians have the ability to save certain audio files to their profile for later listening

**Mental Health Center**
- Links and Plenty of Reading
- Living a Healthy Lifestyle
- Mental Health sites and phone numbers

**Audio Upload Center**
- Entering in Notes: Feelings, what went well, what didn't go well
- Uploading Audio files
- Entering in Relaxation and Tension ratins
- A place for Clinician to leave comments

**Stuttering Information Center**
- Different Types of Stuttering
- Information about the Speech System
- Speech Mechanism
- Latest research

## Breaking Down The Mind Map

To sort of get the full picture of what I actually wanted, I created a mind map, and threw every single thing I could think of down on paper (virtually). Now some of these ideas may not be good, but this is what I would want the full scope of the app to be. I will explain some of the ones that I have completely though out, and leave others a little more vague for the time being. I feel as though there is plenty of work within 2-3 features, so leaving the others for now isn't a bad idea.

### Audio Upload Center

The Audio Upload Center is the main idea behind the app, so it would only make sense that I would want to focus on this first. It is the main driver behind the site being worth any use,

so having it done first would be great! The Audio Files are going to be stored in a file system with pointers that go in the database.

**The Ratings and Notes:** The 2 ratings are Relaxation (rated on a 1-5 scale. Meant to tell if the client felt relaxed, or nervous during said recording), Tension (1-5. Tells how tense the client felt during the recording). The notes section can just be a generic space to allow for a few sentences about the recording. Needs to be connected to the Audio Files table, so the data can be pulled and displayed together.

## Sound Heavy Sentence Generator

**What is a sound heavy sentence?** If you don't have a speech impediment, you are most likely asking yourself this question. A sound heavy sentence, is a sentence that has most of the words starting with one specific sound. As I type this out, I do realize that it was pretty self explanatory, but my explanation will stand regardless. A sound that I have trouble saying is B, so a good example of a B heavy sentence would be: The boy bought a blueberry biscuit. Not all of the words in the sentence have to start with the letter B, so that makes it a little easier.

My vision for this feature is that we will be able to have sound heavy sentences randomly generated, so the client doesn't have to read the same ones over and over again. The idea that I have come up with is filling tables in the database with different kinds of words used to build a sentence i.e. Nouns, Verbs, Adverbs, Adjectives, Pronouns (not sure if this is all of them, as I am not an english major). Then the user could pick and sound, and random words that start with that sound would be pulled to create a sentence heavy with that sound. This would keep the client on their toes while reading sound heavys, and not allow the act of memorization, which usually makes things easier for stutterers.

Some smaller things for this feature are:
1. Letting the client select a number of sentences they want displayed.
2. Choosing a difficulty or age (more or less syllables, bigger or smaller words depending on age)
3. Uniqueness

## User and Clinician Profiles

**For the user:** I would like the user to have full control over their profiles i.e. profile pictures, usernames, emails, and stuff like that. They would obviously be able to upload audio files and edit their posts after the fact. They should be able to view a clinicians profile, and their contact info that they choose to post.

**For the Clinician:** I would like the clinician to be able to view the profiles of the client. They can also have control over their profiles with usernames, profile pictures, contact info. I would also like the clinician to be able to leave comments on the clients audio file posts for

added communication. The clinician should also be able to sign up for email alerts, so that they can be alerted when one of their clients posts audio.
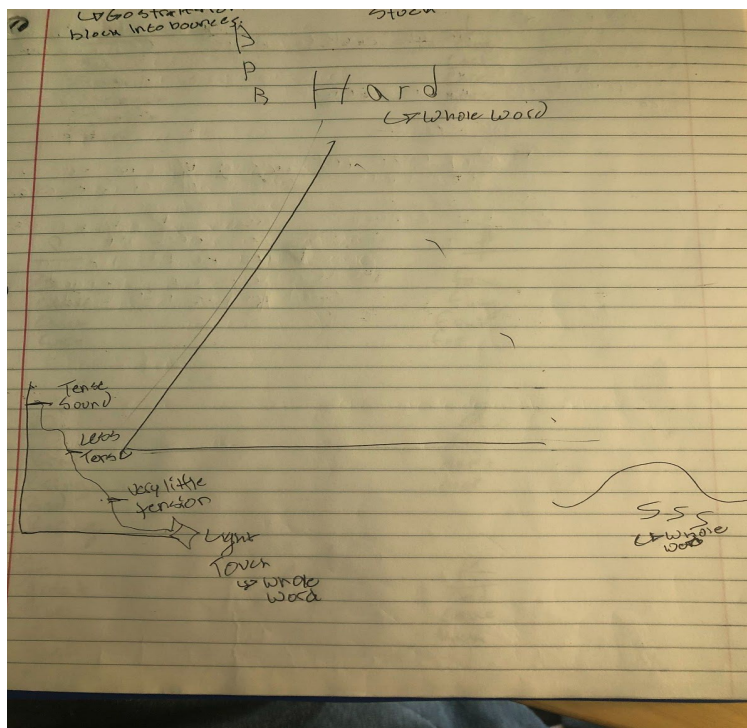
Other than those specific things, its just a pretty standard profile system.

## Warm Up Center

Having a good warm up plan has been crucial to my improvement of fluency. Not only does it make my speech system feel good, it reteaches my system what correct fluency feels like every time I do it.

**Starting Sounds:** Going through a few rounds of saying the starting sounds really helps warm up your speech machine. They are: Ah (Opera), Ih (Inside), Ohe (Over), Uh (Under), Ahe (Ate), EE (Ethernet), OO (Uber), I (Iphone), AA (Apple), E (Elephant). I put the example words in parenthesis, so you know what the sounds actually are. Usually, I go through a round of saying the isolated starting sounds, then I go through a round of saying some words that contain the starting sounds. Maybe we could generate some words for them.

**Triads:** Triads are another great way to warm up your voice. Doing a speech triad means to choose a random word, and stutter on purpose. The idea behind it is, to stutter on purpose on the top step, so that you can feel the way your body deals with the tension, and the best way for you to come through and say the word. Then, once you get through the top step, you move to the bottom left. You start off with saying the first sound of the word very tense, then keep saying it, but with lighter touches of your mouth and less tension. Once you feel as though you have the sound under your control, you say the entire word. On the final step (bottom right), you stretch the first sound of the word, and say the whole word in the same breath. It is

very hard to explain on paper, so if you decide to work on this feature, let me know, and I can provide an example to give a more clear picture.

  **Incorporate Sound Heavy Sentence Generator:** After I do the first 2 things on this list, I then move on to reading some sound heavy sentences. Maybe just provide a link to the page that creates the sound heavy sentences, or find a different way to incorporate them.

  **Reading:** The last part of my warmup is reading. I choose something random to read, and just spend about 5-10 minutes reading at different paces (stutters learn to read outloud, starting with 60 syllables per minute, then move to 90, 120, then finally 150). I use a few different strategies, and just see what feels best. Maybe provide some links to sites with short stories, and some free articles to read.

## Strategy Center

  **Very Important:** Having a good understanding of not only what the strategies are, but how they affect your body, was very important for me. I have some notes about each strategy that I use that I will post, but these are not the only strategies out there.

## Strategies

- **1,2,3 / 1,2 Stretch**

  - Slow, prolonged speech throughout the first 3 words
    - ↳ Gain as much control as you can
    - ↳ Really prolong each sound in the words
  - Regain a semi normal speed after the stretches. (comfortability!)

| Pros | Cons |
|---|---|
| • Ups my fluency the best | • Takes a lot of effort |
| • Not many stuttering moments to have to pull out of | • Takes complete focus. Harder in spontaneous conversation |

- **Easy Bounce**

  - Bounce the first sound of the word
    - ↳ Control the first sound
      - ↳ When ready, slowly/smoothly move to the rest of the word
  - Don't try to go too early or the process starts over
    - ↳ Take your time

| Pros | Cons |
|---|---|
| • Helps easily gain control of the tongue sounds without prolongation (S, F, H | • Sometimes try to go too early, which makes process start over. |
| • Gets the speech machine flowing (no blocks) | • Blocking before the process even starts. |

- Stretching until ~~...~~ regardless of fluency
- Don't use ~~needed~~ pattern of speech
- **1st Word Stretch**

  - Stretch the first word of a sentence to gain control
    - Say the rest of the sentence at a regular pace
      - Still blend sounds / stay relaxed
  - Good for shorter sentences

| Pros | Cons |
|---|---|
| • Probably the most "Normal" sounding | • Sometimes try to go too fast. |
| • Takes the least amount of effort / thought | • Easier to hit blocks / stuttering moments |

- **Stretch 1st, Choose 2 More**

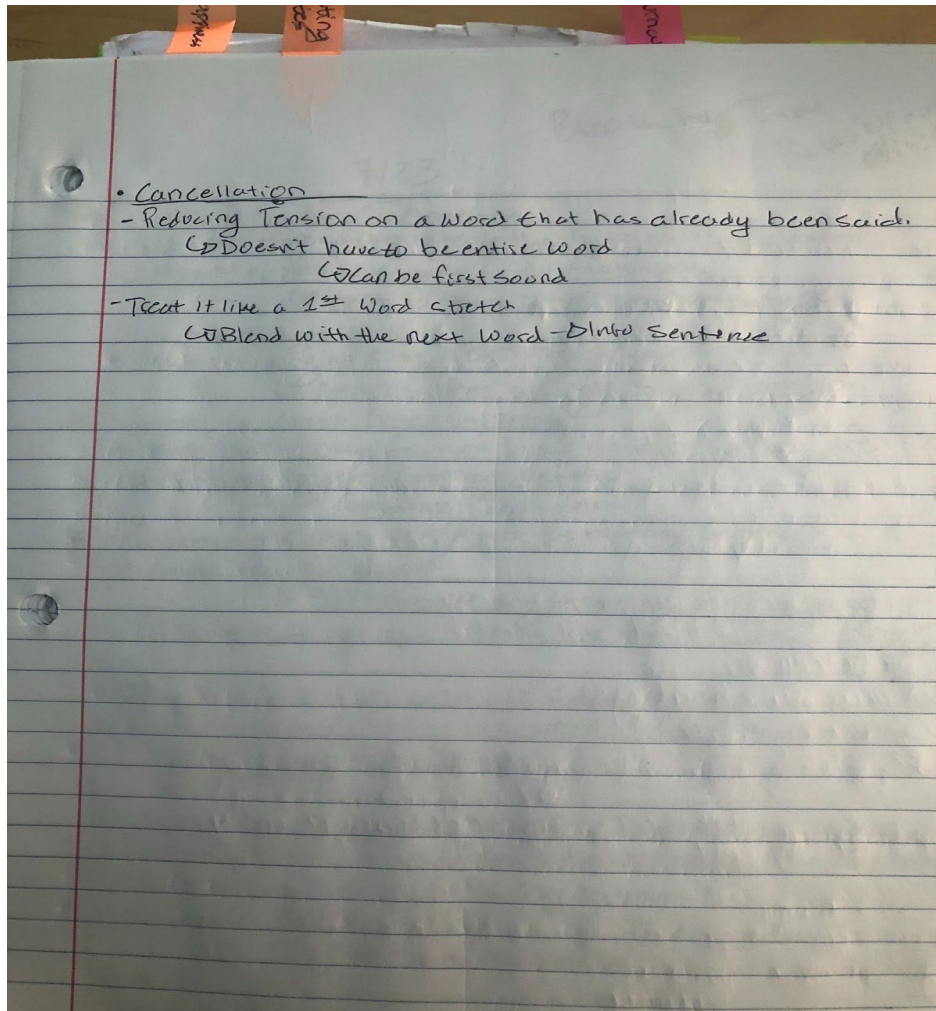  - Stretch the first word, then choose 2 more words to stretch within the breath group
    - Allows a semi normal pace, with the most amount of control
  - Try not to go too long without stretching to cut down on stuttering moments
    - Continue to blend words in between

| Pros | Cons |
|---|---|
| • Allows for the most control, as well as a normal rate | • If prolonged speech just isn't flowing turns into stretching every word |
| • Regaining control multiple times throughout a phrase | • Takes a lot of forward thinking / planning |
| • Feels the best in conversation | • Have to know the entire sentence before starting |
| • Feels like the closest thing to "normal" speech. | |

- Cancellation
  - Reducing Tension on a word that has already been said.
    - Doesn't have to be entire word
    - Can be first sound
  - Treat it like a 1st word stretch
    - Blend with the next word — Into sentence

If you decide to work on this feature, and have any questions, please let me know. You could just type the strategies out on a page, or do something more interactive, like a slide show. Really, anything works, just as long as the information is presented in an easy, readable way.

## Mental Health / Stuttering Information

These sections are pretty much exactly as they sound. I just thought it would be nice to have some helpful links for both, and some important information. Nothing too big.