Full-stack web-app + Digital synth design and integration.

Making a basic 1-oscillator synthesizer plug-in on the web

Product Requirements:

Free version

Limited amount of user accounts ~30 accounts

2-waveform oscillator (Sine + Sine w a bit of Triangle in it)

Math: Fourier series (unless JUCE does this for us)

Branding: “Web Bass Synth” - “Webassynth”

Synthesizer Requirements:

Basic tuning features

Programmable sequencer

Exportable midi sequence

Saving and loading - limited number of files.

Figure out: how to determine the size of files produced by DSP algorithms?

Which algorithms to use etc.

Synth Production:

JUCE

C

Web Hosting:

Heroku free

Backend:

Python

` Django

mySQL

Front-End:

HTML

Bootstrap CSS

Some java maybe

**Project Completion Principles**

1. **Get it done not get it perfect.**
2. **Active documentation as I’m working.**
3. **Keep to the essentials but mark down nice-to-haves**
4. **Project files should be organized**
5. **Code well commented**
6. **A nice Github with relevant commit messages**

**How long will this take?**

* 6 actual coding hours per day in 5 days - ideal
* 3x that at worst - worst case scenario.
* This may be an underestimate

**Strategy:**

Starting point

* Understand whagt that needs to be done with what technologies.

**How to get your JUCE synth into a web page?**