Setting up an Open Speech Recording Website

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Google App Engine

https://learn.adafruit.com/setting-up-an-open-speech-recording-website

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Overview

If you've played with the TensorFlow Lite microspeech model, you will quickly get a little tired of the same word pairs that it comes with. There's just so much yes/no before you want to create your own wake/watch words!

This guide will show you how to setup your own Open Speech Recording website, just like the one Pete Warden used to collect all the words in the speech data set.

Cloud Software Setup

If you don't already have a google cloud account, visit https://cloud.google.com/ to make an account and sign up for the free trial - you will not end up needing to pay for the amount of storage/compute this project requires.

Under GCP (Google Cloud Platform), make a new project
Check the project is made in your project list!

Next up, create a new GCP Cloud Storage bucket to store all the audio files! Select the existing project you've made.
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Pick a bucket name, we used the project name with -output at the end.
For ACL, we set bucket-level access control

Finally make it Multi-regional (default)

Finally, your bucket exists, and we can keep going

Speech Recorder Setup

Install Google Cloud SDK

[Download the Google Cloud SDK, and install it.](#)

Open up a terminal and run gcloud init
Log into the browser window that pops up and grant permissions.

After you're authenticated, the SDK will ask you to pick the project you want to work on.

You'll next be asked to pick a region, for this kinda project it doesn't matter where you pick so go with whatever is close to you.
Finally, you're configured!

Configure Software

Fork/clone the [https://github.com/petewarden/open-speech-recording/](https://github.com/petewarden/open-speech-recording/) repository to your local computer, and go to that directory in your terminal.

Edit your local copy of app.yaml in the repo, change the cloud storage bucket to match the name you made earlier. For session secret key generate a random hex string. It's used to authenticate the session, and has nothing to do with the bucket authentication.

Edit static/scripts/app.js and find the wantedWords and fillerWords arrays and change them to whatever words you want to prompt for.
Finally, run pip install -t lib -r requirements.txt

Local Deploy & Test

Before you upload up to GCP you can run the project locally! Run dev_appserver.py from within the project folder.

Due to my kinda messed up Python2/3 setup, I had to manually run dev_appserver.py but either way, install the components.
Install the extensions as prompted, and if necessary, rerun the appserver script, and permit Python2 access to the network.

Open up a browser and visit http://localhost:8080/ to see the server setup, you should have an instance running.
Deploy & Test

From the directory, in terminal, run gcloud app deploy. The first time you run it you'll be asked to setup the region

```
C:\Users\ladyada\Desktop\open-speech-recording$ gcloud app deploy
You are creating an app for project [aiofruit-microspeech],
warning: creating an app on a project is irreversible and the region
cannot be changed. More information about regions is at
https://cloud.google.com/appengine/docs/locations.
Please choose the region where you want your App Engine application located:
[1] asia-east2  (supports standard and flexible)
[2] asia-northeast1 (supports standard and flexible)
[3] asia-southeast1 (supports standard and flexible)
[4] europe-central1 (supports standard and flexible)
[5] europe-central2 (supports standard and flexible)
[6] europe-west1 (supports standard and flexible)
[7] europe-west2 (supports standard and flexible)
[8] europe-west3 (supports standard and flexible)
[9] europe-west4 (supports standard and flexible)
[10] northamerica-northeast1 (supports standard and flexible)
[12] us-central (supports standard and flexible)
[13] us-east1 (supports standard and flexible)
[14] us-east2 (supports standard and flexible)
[15] us-west2 (supports standard and flexible)
[10] cancel
Please enter your numeric choice: 3
```

Select your local region

```
[1] asia-east2  (supports standard and flexible)
[2] asia-northeast1 (supports standard and flexible)
[3] asia-southeast1 (supports standard and flexible)
[4] europe-central1 (supports standard and flexible)
[5] europe-central2 (supports standard and flexible)
[6] europe-west1 (supports standard and flexible)
[7] europe-west2 (supports standard and flexible)
[8] europe-west3 (supports standard and flexible)
[9] europe-west4 (supports standard and flexible)
[10] northamerica-northeast1 (supports standard and flexible)
[12] us-central (supports standard and flexible)
[13] us-east1 (supports standard and flexible)
[14] us-east2 (supports standard and flexible)
[15] us-west2 (supports standard and flexible)
[10] cancel
```

Type Y to continue the deployment!
Finally, visit the URL in question or just type gcloud app browse:

```
$ gcloud app browse
```


The site is now live!

---

Check Recordings

After you use the open recording app, visit the output bucket you made, you should see many ogg files one for each utterance.