

# Milestone I

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*Abstract*— A high-level summary of the tasks involved and the actions taken to create a voice-assisted educational trainer for the Association of Public Safety Communications designated phonetic alphabet. The chosen delivery platform was Amazon’s Alexa skill development.

## 1 INTRODUCTION AND RECAP

The phonetic alphabet [3] is one of the most important languages that law enforcement officers, public safety officials, aviation personnel, and military personnel can ever learn. Most common and current method of learning this alphabet is through flashcards and memorization. It has been shown [1] that learning through digital flashcards is faster and more efficient than traditional methods.

Using Alexa, the educational possibilities could include pronunciation training and conversational role-play, which are vital learning paradigms and far exceed the capabilities of flashcards based learning [2].

My proposal would include creating an Alexa voice-assisted skill, which would help educate learners in the Association of Public Safety Communications Officials – International (APCO) version of the phonetic alphabet [4]. The APCO version of the phonetic alphabet has been adopted by law enforcement and public safety departments for standardize radio traffic.

### 1.1 Milestone I

This, by far, will be the shortest paper I have ever created for this class. Since I am unaware of any type of formal format for this milestone paper I will do my best to convey what is going on where I’m at.

I included recap above on what the project is about. I learned from previous classes that when doing peer reviews most the time those doing the reviews are not the ones who reviewed past assignments. Which can lead to confusion when you’re trying to grade someone’s paper as you have no idea what is going on.

Hopefully the introduction and abstract provided you the reader enough information on what my project is about.

## 1.2 Task List

Below, is a list of tasks that I set aside for myself for the last three weeks. In a nutshell, the tasks centered around creating an environment where I could do development for this skill. In my past experience as an IT developer and manager the hardest part of any project is setting up an environment that is conducive to work.

<b>Week #</b>	<b>Task #</b>	<b>Task Description</b>	<b>Estimated Time (Hours)</b>
8	1	Clean off existing URL	1
8	2	Install NodeJS	0.25
8	3	Register With Amazon	1
8	4	Figure out Amazon SSL	1
8	5	Figure out Amazon SSL	1
8	6	Connect MySQL to NodeJS	0.5
8	7	Redirect NodeJS port	0.5
8	8	Use Postman to Test Posts	1
9	9	Install Alexa Emulator	2
9	10	Experiment with Alexa Emulator	2
9	11	Create Hello World Alexa Skill	3
9	12	Official Start of Alexa Skill	2
9	13	Work on Alexa Voice Capture	2
9		Work on Alexa Voice Capture	2
10		Work on Alexa Voice Capture	3
10	14	Train and Capture Word Variations	3
10		Train and Capture Word Variations	3
10	15	Create Video Presentation	3
10		Create Video Presentation	3

## 2 CURRENT STATUS

My video for presentation will explain where I'm at more detail on each of my tasks. In summary, like all big projects not everything went to plan. I'm not where I want to be however I can still make progress and move forward. Task Four and Five turned out to be a very complicated ordeal. I was under the impression that

my current SSL CERT on my server was a legitimate SSL CERT. That assumption turned out incorrect. This caused me to switch gears and embrace developing on Amazon's Lambda server instead of my own. There was a huge learning curve associated with this and put me behind on my tasks.

A positive note I am able to develop and progress with the skill. Just not how I wanted to. I hope that this will allow Milestone II and me to make up lost time between now.

### **3 ASSET LOCATION**

The location to all past papers, task lists, and video presentations has been uploaded to my blog located at the reference link below. I do not use Google Drive, Dropbox, or anything else like that. I've also include the video presentation link separate – if anyone is interested.

#### **3.1 Reference link**

<https://www.bonesnap.com/blog/2019/10/26/cs6460-educational-technology/>

#### **3.2 YouTube link**

<https://youtu.be/YHM7cpXCjJg>

### **4 REFERENCES**

1. Dizon, G., & Tang, D. (2017). Comparing the efficacy of digital flashcards versus paper flashcards to improve receptive and productive L2 vocabulary. *The EuroCALL Review*, 25(1), 3. DOI: 10.4995/eurocall.2017.6964
2. Skidmore, L., & Moore, R. K. (2019). Using Alexa for Flashcard-Based Learning. *Interspeech 2019*. doi: 10.21437/interspeech.2019-2893
3. NATO phonetic alphabet. (2019, September 14). Retrieved from [https://en.wikipedia.org/wiki/NATO\\_phonetic\\_alphabet](https://en.wikipedia.org/wiki/NATO_phonetic_alphabet).
4. The police alphabet: an important 'language' for LEOs. (2016, September 20). Retrieved from <https://www.policeone.com/communications/articles/the-police-alphabet-an-important-language-for-leos-YEwuPNi2NsYGlVh>