

### Lab report 3

I chose to include fictional names, places and objects as well as scientific names of plants for my test intents. Initially, the fictional places were not recognized by the standard ASR system, resulting in low confidence scores ranging from 0.1 to 0.3. However, some fictional names were recognized such as Don and Lisbeth. For the scientific terms, some were recognized with moderate confidence scores ranging from 0.4 to 0.6, others were not recognized accurately which resulted to confidence scores below 0.3.

For the testing, I experimented with real locations such as London, Detroit etc and common plant names such as Orchid, Tulips to assess performance in recognizing common entities. Most of the real locations and the common names of people were recognized with high confidence scores ranging from 0.8 to 0.9. However, there were instances where certain names were not picked up accurately.

However, with the help of Azure's custom speech, I was able to train the ASR model to recognize a diverse set of words during the training phase as well as test out how accurate it can recognize new terms.

In conclusion, this experiment emphasized the importance of a customized approach to accurately recognize a wide range of words and phrases, including fictional names, scientific terms, and real-world entities. The accuracy in speech recognition varied significantly across these different categories. With the help of Azure Custom Speech, a significant improvement was observed for the speech recognition.

Endpoint ID <https://m-v-lab3.cognitiveservices.azure.com/>