**Amazon Polly:**

1. It is a cloud service that turns text into lifelike speech, allowing you to create applications that talk, and build entirely new categories of speech-enabled products.
2. Polly's [Text-to-Speech](https://aws.amazon.com/polly/what-is-text-to-speech/) (TTS) service uses **advanced deep learning technologies** to synthesize natural sounding human speech
3. Amazon Polly offers **Neural Text-to-Speech (NTTS)** voices that deliver advanced improvements in speech quality through a new machine learning approach
4. Includes variety of languages and multiple lifelike voices including both male and female voices
5. **Advantages**:
   1. **High quality**: Due to Neural TTS and standard TTS, we get high quality of speech with higher pronunciation accuracy and natural human-like voices
   2. Support for a large portfolio of languages and voices. NTTS currently supports 3 british english voices and 8 US english voices
   3. **Cost effective**: you will have to pay only for those languages and voices which you use.
   4. **Cloud based solution**: TTS conversion happens on the cloud avoiding more memory and power consumptions.
   5. NTTS also supports a Newscaster speaking style (The speaking style mimics a formal and authoritative British newsreader)
6. **How it works**:
   1. Provide text to one of the speech synthesis methods.
   2. You can provide text in simple text format or in SSML (Speech synthesis markup language) format. With SSML you can control various aspects of the speech such as pronunciation, pitch, volume and speech rate
   3. Choose NTTS or standard TTS for conversion
   4. Specify the audio output format. There are various formats available such as mp3
   5. Then amazon converts your text into a high quality speech in specified language and voice.
7. **Use Cases**:
   1. **Content Creation**: Audio can be used as complimentary media to written and visual communication. This is the basic idea behind the podcasts.
   2. **E learning**: Instead of reading, we can consume the information easily by listening to it. Polly is used in e learning applications where we use animation supported by audios.
   3. **Telephony**: We can use amazon API to deliver information such as service status, account and billing inquiries

**Amazon Transcribe:**

1. Automatic speech recognition service that uses machine learning models to convert audio to text
2. We can use this as a standalone transcription service or to add speech-to-text capabilities to any application.
3. **Use Cases**:
   1. [Live transcriptions of F1 races using Amazon Transcribe](http://aws.amazon.com/blogs/machine-learning/live-transcriptions-of-f1-races-using-amazon-transcribe/)
   2. [Generate high-quality meeting notes using Amazon Transcribe and Amazon Comprehend](http://aws.amazon.com/blogs/machine-learning/generate-high-quality-meeting-notes-using-amazon-transcribe-and-amazon-comprehend/)
   3. [Make your audio and video files searchable using Amazon Transcribe and Amazon Kendra](http://aws.amazon.com/blogs/machine-learning/make-your-audio-and-video-files-searchable-using-amazon-transcribe-and-amazon-kendra/)

SDK version of polly and transcribe

Python scripts:

Boto3 library