IBM Watson Speech: Creating Voice Interfaces Using Speech APIs

Duration: 1 Day Course Code: W7L168G

Overview:

Voice technologies are rapidly reshaping how businesses interact with customers, automate operations, and analyze conversations.

Today's AI systems can deliver fast, accurate, and natural-sounding speech capabilities across multiple languages, supporting use cases such as customer self-service, live agent assistance, real-time analytics, and more.
In this course, learners will explore how to apply IBM Watson Speech to Text and Watson Text to Speech to build voice-enabled solutions tailored to their unique business needs.
By the end of the course, participants will have the skills to design, customize, and integrate AI-powered voice solutions that deliver seamless, human-like interactions across multiple platforms.

Target Audience:

This course is intended for:
- Anyone looking to automate transcribing and synthesizing speech by using Watson Speech to Text and Text to Speech Technology
- Practicing AI specialists looking to add speech capabilities to their existing AI-powered services, such as AI assistants and AI agents
- Practicing Data Scientists looking to get insights from speech and text analysis
- Business leaders looking to understand the capabilities of Watson Speech to Text and Text to Speech, and apply this technology to solve related domain problems
- Anyone looking to understand the process of integrating speech-to-text or text-to-speech with an AI assistant or AI agent

Objectives:

- **After completing this course, you should be able to:**
- Explain the value of speech recognition and common Watson Speech business use cases
- Leverage the Watson Speech to Text API to build a simple working prototype that transcribes speech to text for a business problem
- Leverage the Watson Text to Speech API to build a simple working prototype that synthesizes text to speech for a business problem
- Leverage the watsonx.ai API to integrate IBM Granite LLMs for language translation
- Infuse voice capabilities into an AI assistant built with watsonx Assistant by integrating it with Watson Speech

Prerequisites:

Before taking this course, you should have:

- Basic Python
- Basic knowledge of RESTful API
- General use of IBM Cloud and an IBM Cloud account

Testing and Certification

None

Follow-on-Courses:

None

Content:

Unit 1. Introduction to Speech Transcription, Synthesis and the Watson Speech services

Unit 2. In-depth exploration of Watson Speech to Text

- Exercise A: Prepare the Lab Environment for Speech to Text
- Exercise B: Transcribe with the English US Telephony Model
- Exercise C: Train a Language Model
- Exercise D: Using Grammars
- Exercise E: Language Translation with a Granite LLM
- Exercise F: Additional Speech to Text Features

Unit 3. In-depth exploration of Watson Text to Speech

- Exercise A: Prepare the Lab Environment for Text to Speech
- Exercise B: Synthesis Using a Standard English Model
- Exercise C: Customizing Models
- Exercise D: Additional Text to Speech Features

Unit 4. Adding a Voice Interface with Watson Speech Services

- Exercise: Integrating watsonx Assistant with Watson Speech

Additional Information:

Official course book provided to participants.

Further Information:

For More information, or to book your course, please call us on Head Office Tel.: +974 40316639

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