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|-----------------------|--|
| <b>Pre-Requisites</b> | Create Text to Speech Services                                 |
| Team ID               | PNT2022TMID14838   |
| Project Name          | Project – Personal Assistance for Seniors Who Are Self-Reliant |

## CREATE & CONFIGURE IBM CLOUD SERVICES

### CREATE TEXT TO SPEECH SERVICE

Installation of Watson-TTS Client library Provided for Python:

Code:

`pip install --upgrade "ibm-watson>=6.1.0"`

```

Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\sibis>pip install --upgrade "ibm-watson">=6.1.0
Requirement already satisfied: ibm-watson>=6.1.0 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (6.1.0)
Requirement already satisfied: ibm-cloud-sdk-core<3.0, >=3.3.6 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (from ibm-watson>=6.1.0) (3.16.0)
Requirement already satisfied: requests<3.0, >=2.0 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (from ibm-watson>=6.1.0) (2.28.1)
Requirement already satisfied: python-dateutil<2.9, >=2.8.3 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (from ibm-watson>=6.1.0) (2.8.2)
Requirement already satisfied: websocket-client<1.3, >=1.0 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (from ibm-watson>=6.1.0) (1.1.0)
Requirement already satisfied: PyJWT<3.0.0, >=2.4.0 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (from ibm-cloud-sdk-core<3.0, >=3.3.6->ibm-watson>=6.1.0) (2.6.0)
Requirement already satisfied: urllib3<2.0.0, >=1.26.0 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (from ibm-cloud-sdk-core<3.0, >=3.3.6->ibm-watson>=6.1.0) (1.26.12)
Requirement already satisfied: aio<1.5 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (from python-dateutil<2.9, >=2.8.3->ibm-watson>=6.1.0) (1.16.0)
Requirement already satisfied: idna<4, >=2.5 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (from requests<3.0, >=2.0->ibm-watson>=6.1.0) (3.4)
Requirement already satisfied: certifi<2017.4.17 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (from requests<3.0, >=2.0->ibm-watson>=6.1.0) (2022.9.24)
Requirement already satisfied: charset-normalizer<3, >=2 in c:\users\sibis\appdata\local\programs\python\python39\lib\site-packages (from requests<3.0, >=2.0->ibm-watson>=6.1.0) (2.1.1)

C:\Users\sibis>

```

### Service Creation Status & Credential Details:

**Text to Speech-ok** Active [Add tags](#) [Details](#) [Actions...](#)

**Manage**

- Getting started
- Service credentials
- Plan
- Connections

Start by viewing the tutorial

[Getting started tutorial](#) [API reference](#)

**Plan**

**Lite**

[Upgrade](#)

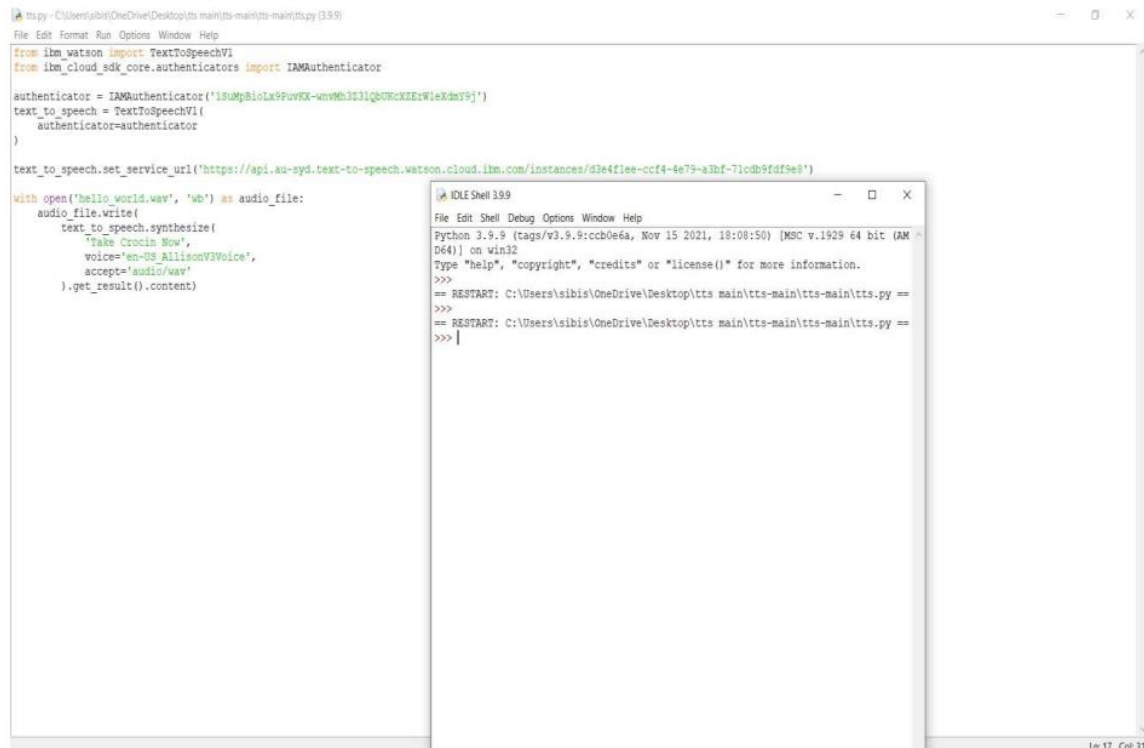
**Credentials**

[Download](#) [Show credentials](#)

API key: .....

URL: <https://api.eu-gb.text-to-speech.watson.cloud.ibm.com/instances/2/>

## Execution & Test Run of Program to Access TTS:



The screenshot displays a Python script in an IDE and its execution output in a terminal window. The script, located at `C:\Users\sibis\OneDrive\Desktop\tts main\tts-main\tts.py`, imports `TextToSpeechV1` and `IAMAuthenticator` from the `ibm_watson` and `ibm_cloud_sdk_core.authenticators` modules. It initializes an `IAMAuthenticator` with a specific API key and creates a `TextToSpeechV1` instance. The service URL is set to `https://api.eu-syd.text-to-speech.watson.cloud.ibm.com/instances/d3e4f1ee-ccf4-4e79-a3bf-71cd9df9e8`. The script then opens a file named `hello_world.wav` in write mode, writes the synthesized audio content to it, and closes the file.

```
ts.py - C:\Users\sibis\OneDrive\Desktop\tts main\tts-main\tts.py (3.9)
File Edit Format Run Options Window Help
from ibm_watson import TextToSpeechV1
from ibm_cloud_sdk_core.authenticators import IAMAuthenticator

authenticator = IAMAuthenticator('18uMp8i0LxSPuvvXK-4mVW03E31Q6URcXIErW1eXdm9Sj')
text_to_speech = TextToSpeechV1(
    authenticator=authenticator
)

text_to_speech.set_service_url('https://api.eu-syd.text-to-speech.watson.cloud.ibm.com/instances/d3e4f1ee-ccf4-4e79-a3bf-71cd9df9e8')

with open('hello_world.wav', 'wb') as audio_file:
    audio_file.write(
        text_to_speech.synthesize(
            'Take Crocin Now',
            voice='en-US_AllisonV3Voice',
            accept='audio/wav'
        ).get_result().content
    )
```

The terminal window (IDLE Shell 399) shows the execution output, including the Python version (3.9.9), the OS (win32), and the restart command: `RESTART: C:\Users\sibis\OneDrive\Desktop\tts main\tts-main\tts.py`.