

# SPRINT DELIVERY 3

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## ESTABLISHING THE TEXT-TO-SPEECH SERVICE

### 1)INSTALLATION OF WATSON VERSION:

#### CODE:

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

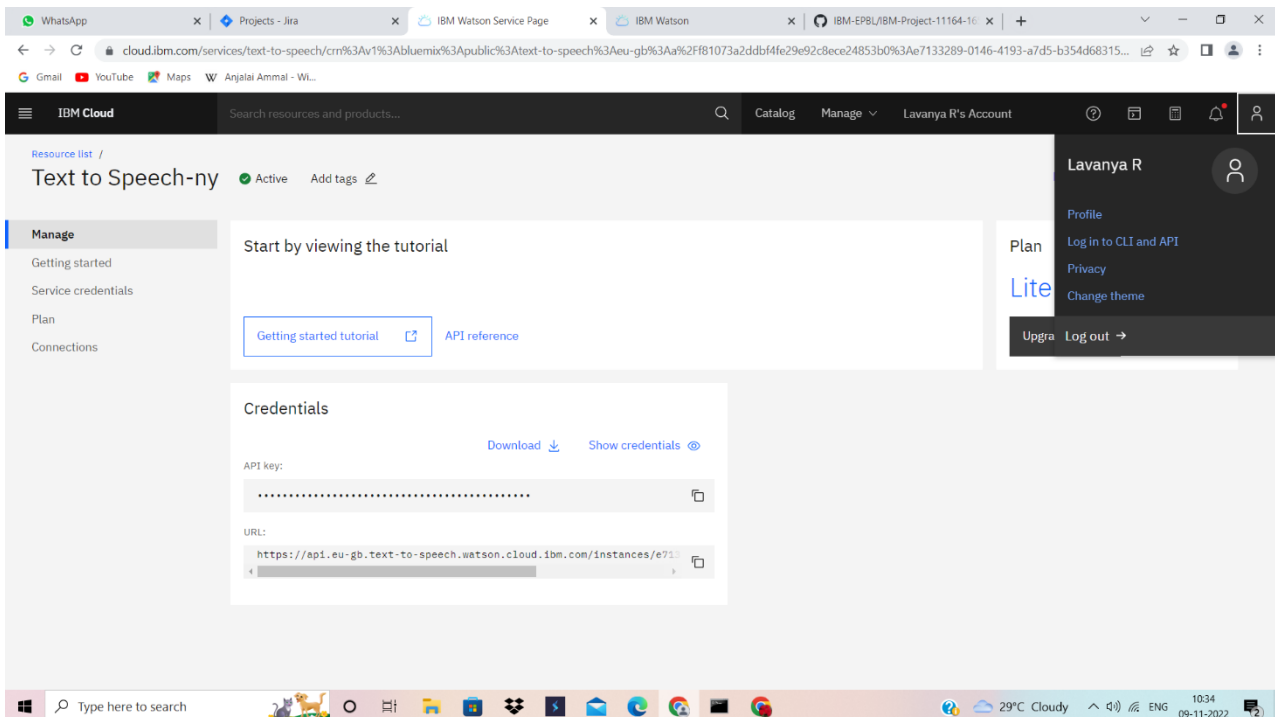
#### RESULT:

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

C:\Users\lavanya>pip install --upgrade "ibm-watson>=6.1.0"
Collecting ibm-watson>=6.1.0
  Downloading ibm-watson-6.1.0.tar.gz (373 kB)
    | 373 kB 273 kB/s
  Installing build dependencies ... done
  Getting requirements to build wheel ... done
  Preparing metadata (pyproject.toml) ... done
Collecting ibm-cloud-sdk-core==3.*>=3.3.6
  Downloading ibm_cloud_sdk_core-3.16.0-py3-none-any.whl (83 kB)
    | 83 kB 394 kB/s
Collecting python-dateutil>=2.5.3
  Downloading python_dateutil-2.8.2-py2.py3-none-any.whl (247 kB)
    | 247 kB 726 kB/s
Collecting websocket-client==1.1.0
  Downloading websocket_client-1.1.0-py2.py3-none-any.whl (68 kB)
    | 68 kB 620 kB/s
Collecting requests<3.0,>=2.0
  Downloading requests-2.28.1-py3-none-any.whl (62 kB)
    | 62 kB 340 kB/s
Collecting PyJWT<3.0.0,>=2.4.0
  Downloading PyJWT-2.6.0-py3-none-any.whl (20 kB)
Collecting urllib3<2.0.0,>=1.26.0
  Downloading urllib3-1.26.12-py2.py3-none-any.whl (140 kB)
    | 140 kB 467 kB/s
Collecting six>=1.5
  Using cached six-1.16.0-py2.py3-none-any.whl (11 kB)
Collecting charset-normalizer<3,>=2
  Downloading charset_normalizer-2.1.1-py3-none-any.whl (39 kB)
Collecting idna<4,>=2.5
  Downloading idna-3.4-py3-none-any.whl (61 kB)
    | 61 kB 770 kB/s
Collecting certifi>=2017.4.17
  Downloading certifi-2022.9.24-py3-none-any.whl (161 kB)
    | 161 kB 819 kB/s
Building wheels for collected packages: ibm-watson
  Building wheel for ibm-watson (pyproject.toml) ... done
  Created wheel for ibm-watson: filename=ibm_watson-6.1.0-py3-none-any.whl size=370809 sha256=305006627ee0b9ea8dee55bbb0ced8e6023705145f876dc1f32f8dcd83016bf3
  Stored in directory: c:\users\lavanya\appdata\local\pip\cache\wheels\88\69\f3\3e30b078dc358148c52edb76dfa50ab1460f44f440306a8069
Successfully built ibm-watson
Installing collected packages: urllib3, six, idna, charset-normalizer, certifi, requests, python-dateutil, PyJWT, websocket-client, ibm-cloud-sdk-core, ibm-watson
Successfully installed PyJWT-2.6.0 certifi-2022.9.24 charset-normalizer-2.1.1 ibm-cloud-sdk-core-3.16.0 ibm-watson-6.1.0 idna-3.4 python-dateutil-2.8.2 requests-2.28.1 six-1.16.0 urllib3-1.26.12 websocket-client-1.1.0
WARNING: You are using pip version 21.3.1; however, version 22.3.1 is available.
You should consider upgrading via the 'c:\users\lavanya\appdata\local\programs\python\python37\python.exe -m pip install --upgrade pip' command.

C:\Users\lavanya>w
'w' is not recognized as an internal or external command,
```

## 2) COPYING CREDENTIALS FOR API AND URL:



## 3) PROGRAM FOR ACCESSING APIs OF TTS SERVICE:

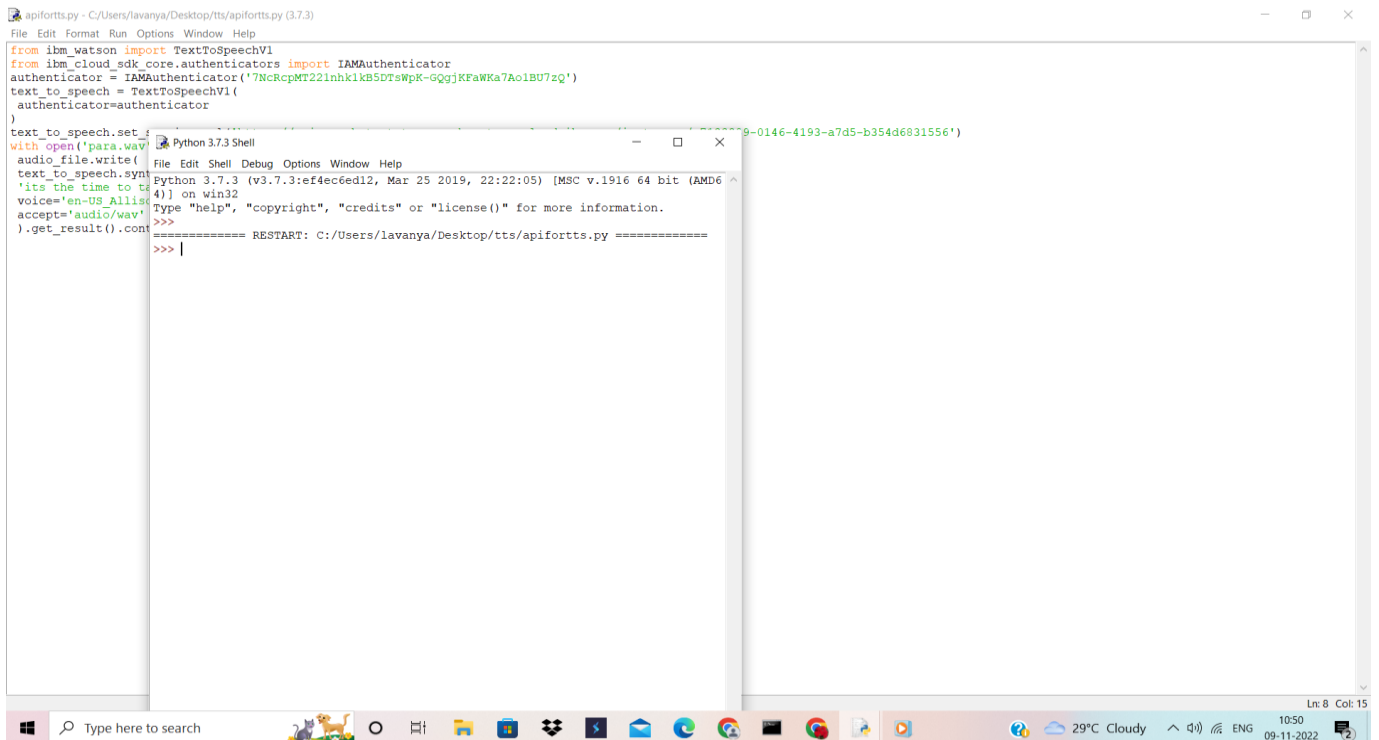
```
from ibm_watson import TextToSpeechV1
from ibm_cloud_sdk_core.authenticators import IAMAuthenticator
authenticator = IAMAuthenticator('7NcRcpMT221nhk1kB5DTsWpK-
GQgjKFaWKa7Ao1BU7zQ')
text_to_speech = TextToSpeechV1(
    authenticator=authenticator
)
text_to_speech.set_service_url('https://api.eu-gb.text-to-
speech.watson.cloud.ibm.com/instances/e7133289-0146-4193-a7d5-
b354d6831556')
with open('para.wav', 'wb') as audio_file:
    audio_file.write(
        text_to_speech.synthesize(
            'its the time to take paracetomal',
```

**voice='en-US\_AllisonV3Voice',**

**accept='audio/wav'**

**).get\_result().content)**

## **EXECUTION AND RUN:**

A screenshot of a Windows desktop environment. In the foreground, a 'Python 3.7.3 Shell' window is open, displaying the command prompt. The background shows a code editor window titled 'apifortts.py - C:/Users/lavanya/Desktop/tts/apifortts.py (3.7.3)'. The code in the editor is a Python script that uses the IBM Watson Text-to-Speech API. The script imports 'TextToSpeechV1' from 'ibm\_watson' and 'IAMAuthenticator' from 'ibm\_cloud\_sdk\_core.authenticators'. It sets an authenticator and a text-to-speech object, then writes the audio output to a file named 'para.wav'. The shell window shows the execution of the script, with a restart message and a prompt for user input. The Windows taskbar at the bottom shows various icons and the system clock indicating 10:50 on 09-11-2022.

```
apifortts.py - C:/Users/lavanya/Desktop/tts/apifortts.py (3.7.3)
File Edit Format Run Options Window Help
from ibm_watson import TextToSpeechV1
from ibm_cloud_sdk_core.authenticators import IAMAuthenticator
authenticator = IAMAuthenticator('7NcRcpMT221nhk1k85DTsWpK-GQgjKFawKa7Ao1BU7zq')
text_to_speech = TextToSpeechV1(
    authenticator=authenticator
)
text_to_speech.set_voice('en-US_AllisonV3Voice')
with open('para.wav', 'wb') as audio_file:
    audio_file.write(text_to_speech.synthesize('its the time to take a break').get_result().content)
text_to_speech.synthesize('its the time to take a break')
voice='en-US_AllisonV3Voice'
accept='audio/wav'
).get_result().content

Python 3.7.3 Shell
File Edit Shell Debug Options Window Help
Python 3.7.3 (v3.7.3:ef4ec6ed12, Mar 25 2019, 22:22:05) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/lavanya/Desktop/tts/apifortts.py =====
>>> |
```

## **4)RESULT:**

## **VIDEO:**

**[https://drive.google.com/drive/folders/15mo\\_9V5Y4YWjQ2T1pJlKZM\\_UgCyGFxBY](https://drive.google.com/drive/folders/15mo_9V5Y4YWjQ2T1pJlKZM_UgCyGFxBY)**