

FINAL DELIVERABLE(TTS)

TEAM ID : PNT2022TMID18706

ESATABLISHING THE TEXT-TO-SPEECH SERVICE

1)INSTALLATION OF WATSON VERSION :

CODE:

Pip install—upgrade “ibm-watson>=6.1.0”

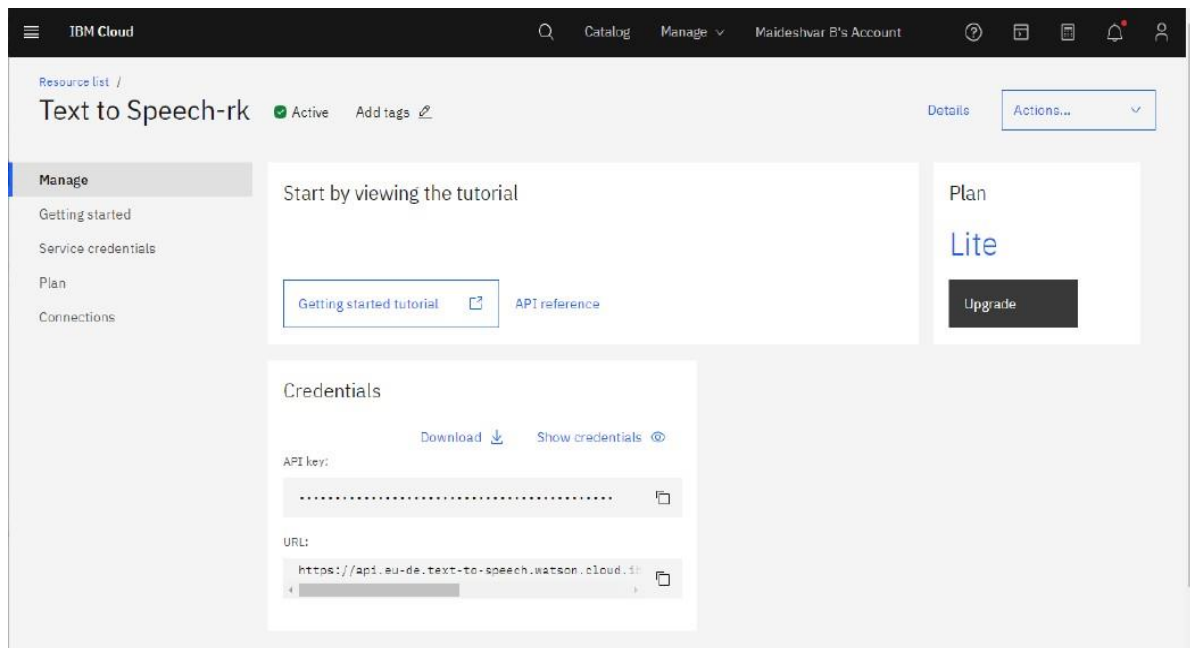
RESULTS :

```
Microsoft Windows [Version 10.0.19044.2100]
(c) Microsoft Corporation. All rights reserved.

C:\Users\lavanyap@p> pip install --upgrade "ibm-watson>=6.1.0"
Collecting ibm-watson>=6.1.0
  Downloading ibm-watson-6.1.0.tar.gz (373 kB)
    Installing build dependencies ... done
    Getting requirements to build wheel ... done
    Preparing metadata (pyproject.toml) ... done
Collecting ibm-cloud-sdk-core>=1.9.0, <2.0.0
  Downloading ibm-cloud-sdk-core-1.16.0-py3-none-any.whl (81 kB)
    Collecting python-dateutil>=2.3.3
      Downloading python-dateutil-2.8.2-py2.py3-none-any.whl (247 kB)
    Collecting websocket-client>=1.0
      Downloading websocket-client-1.5.1-py3-none-any.whl (60 kB)
    Collecting requests>=2.20.0
      Downloading requests-2.28.1-py3-none-any.whl (62 kB)
    Collecting PyJWT>=2.0.0, <3.0.0
      Downloading PyJWT-2.8.0-py3-none-any.whl (20 kB)
    Collecting urllib3>=2.0.0, <2.20.0
      Downloading urllib3-1.26.12-py2.py3-none-any.whl (140 kB)
    Collecting six>=1.5
      Using cached six-1.16.0-py2.py3-none-any.whl (11 kB)
    Collecting charset-normalizer>=2
      Downloading charset-normalizer-2.1.1-py3-none-any.whl (39 kB)
    Collecting idna>=2.5
      Downloading idna-3.4-py3-none-any.whl (61 kB)
    Collecting certifi>=2017.4.17
      Downloading certifi-2023.9.24-py3-none-any.whl (161 kB)
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 sha256=305996037cc94a2d4e35b10c0b56033785145f575d1cf32f8d103810f1
  Stored in directory: c:\users\lavanyap@p\local\pip\cache\wheels\10\69\43\1b30e07bd135814852ed76d4f5b4d10685044165085a069
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-2.8.0 certifi-2023.9.24 charset-normalizer-2.1.1 ibm-cloud-sdk-core-1.16.0 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-1.5.1
WARNING: You are using pip version 21.3.1; however, version 22.3.1 is available.
You should consider upgrading via the 'c:\users\lavanyap@p\local\programs\python\python.exe -m pip install --upgrade pip' command.

C:\Users\lavanyap>
```

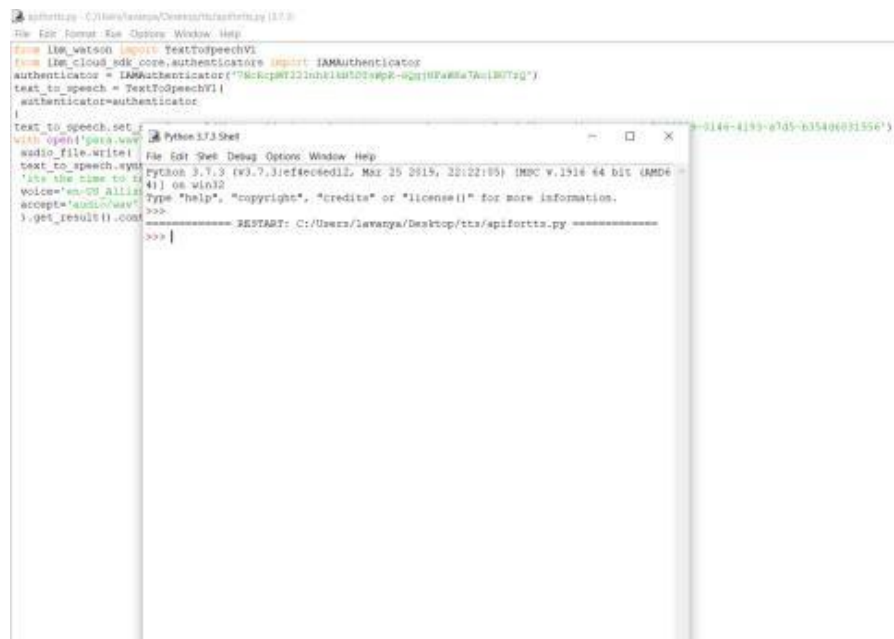
2) COPYING CREDENTIALS FOR API AND URL :



3) PROGRAM FOR ACCESSING APIs OF TTS SERVICE:

```
from ibm_watson import TextToSpeechV1
from ibm_cloud_sdk_core.authenticators import
IAMAuthenticator authenticator =
IAMAuthenticator('7NcRcpMT221nhk1kB5DTsWpKGQgjKFkWka
7Ao1BU7zQ') text_to_speech = TextToSpeechV1(
authenticator=authenticator )
text_to_speech.set_service_url('https://api.eu-gb.text-
tospeech.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 :



The image shows a Python IDE with a script named `apifortts.py` and a terminal window. The script imports `TextToSpeechV1` from `ibm_watson` and `IAmAuthenticator` from `ibm_cloud_sdk_core.authenticators`. It initializes an authenticator with an API key and a URL, then creates a `TextToSpeechV1` instance. The code sets a text-to-speech configuration, writes it to a file, and then uses the `voice` parameter to generate audio. The terminal window shows the execution of the script, displaying the Python version (3.7.3) and the system architecture (AMD64). The script output is a base64-encoded string: `g-0144-4j93-a7d5-b3549e031556`.

```
apifortts.py - C:/Users/Lavanya/Desktop/its/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('786c3p8W721nht1k81D5e9p2-qg3t0Fw8W7Acl8072q')
text_to_speech = TextToSpeechV1(
    authenticator=authenticator
)

text_to_speech.set_
with open('pers.wav')
audio_file.write(
text_to_speech.syn
'tis the time to si
voice='en-US Allis
accept='audio/wav'
).get_result().com

Python 3.7.3 Shell
File Edit View Debug Options Window Help
Python 3.7.3 (tags/v3.7.3:ffcced1f, Mar 25 2019, 22:02:05) [AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Lavanya/Desktop/its/apifortts.py =====
>>> |
```