

CREATE AND CONFIGURE IBM CLOUD SERVICE

| | |
|--------------|--|
| PROJECT NAME | PERSONAL ASSISTANCE FOR SENIORS WHO ARE SELF RELIANT |
| TEAM ID | PNT2022TMID41369 |

CREATE THE TEXT-TO-SPEECH SERVICE

Installation of Watson-TTS Client library Provided for Python:

Code:

Pip install -upgrade"ibm-watson">=6.1.0"

```
Command Prompt
Preparing wheel metadata ... done
Collecting requests<3.0,>=2.0 (from ibm-watson==6.1.0)
  Downloading https://files.pythonhosted.org/packages/ca/91/6d9b8ccacd0412c88820f72cebaa4f0c0441b5cda699c90f618b6f8a1b42/requests-2.28.1-py3-none-any.whl (62kB)
    100% |#####| 71kB 1.9MB/s
Collecting ibm-cloud-sdk-core==3.*,>=3.3.6 (from ibm-watson==6.1.0)
  Downloading https://files.pythonhosted.org/packages/b1/35/2e6ad7ecb21c5ff42f37ced3aa4e90fac9a1fac2cfdad10403ca3d653b28/ibm_cloud_sdk_core-3.16.0-py3-none-any.whl (83kB)
    100% |#####| 92kB 403kB/s
Collecting websocket-client==1.1.0 (from ibm-watson==6.1.0)
  Downloading https://files.pythonhosted.org/packages/ca/5f/3c211d168b2e9f9342cfb53bcfc26aab0eac63b998015e7af7bcae66119d/websocket_client-1.1.0-py2.py3-none-any.whl (68kB)
    100% |#####| 71kB 407kB/s
Collecting python-dateutil==2.5.3 (from ibm-watson==6.1.0)
  Downloading https://files.pythonhosted.org/packages/36/7a/87837f39d0296e723bb9b62bbb257d0355c7f6128853c78955f57342a56d/python_dateutil-2.8.2-py2.py3-none-any.whl (247kB)
    100% |#####| 256kB 880kB/s
Collecting idna<4,>=2.5 (from requests<3.0,>=2.0->ibm-watson==6.1.0)
  Downloading https://files.pythonhosted.org/packages/fc/34/3030de6f1370931b9dbb4dad48f6ab1015ab1d32447850b9fc94e60097be/idna-3.4-py3-none-any.whl (61kB)
    100% |#####| 71kB 245kB/s
Collecting charset-normalizer<3,>=2 (from requests<3.0,>=2.0->ibm-watson==6.1.0)
  Downloading https://files.pythonhosted.org/packages/db/51/a507c856293ab05cdcd1db77ff4bc1268ddd39f29e7dc4919aa497f0adbec/charset_normalizer-2.1.1-py3-none-any.whl
Collecting urllib3<1.27,>=1.21.1 (from requests<3.0,>=2.0->ibm-watson==6.1.0)
  Downloading https://files.pythonhosted.org/packages/6f/de/5be2e3eed8426f871b170663333a0f627fc2924cc386cd41be065e7ea870/urllib3-1.26.12-py2.py3-none-any.whl (140kB)
    100% |#####| 143kB 797kB/s
Collecting certifi==2017.4.17 (from requests<3.0,>=2.0->ibm-watson==6.1.0)
  Downloading https://files.pythonhosted.org/packages/1d/38/fa96a426e0c0e68aabc68e896584b83ad1eec779265a028e156ce509630e/certifi-2022.9.24-py3-none-any.whl (161kB)
    100% |#####| 163kB 778kB/s
Collecting PyJWT<3.0.0,>=2.4.0 (from ibm-cloud-sdk-core==3.*,>=3.3.6->ibm-watson==6.1.0)
  Downloading https://files.pythonhosted.org/packages/40/46/505f0dd53c14096f01922bf93a7abb4e40e29a06f858abbaa791e6954324/PyJWT-2.6.0-py3-none-any.whl
Collecting six>=1.5 (from python-dateutil==2.5.3->ibm-watson==6.1.0)
  Downloading https://files.pythonhosted.org/packages/d9/5a/e7c31adbe875f2abbb91bd84cf2dc52d792b5a01506781dbcf25c91daf11/six-1.16.0-py2.py3-none-any.whl
Building wheels for collected packages: ibm-watson
  Building wheel for ibm-watson (PEP 517) ... done
  Stored in directory: C:\Users\Admin\AppData\Local\pip\Cache\wheels\ad\dc\c4\938249735e2a600efdd624d43886074f8d3bead9ef51ace2e1
Successfully built ibm-watson
Installing collected packages: idna, charset-normalizer, urllib3, certifi, requests, six, python-dateutil, PyJWT, ibm-cloud-sdk-core, websocket-client, 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
You are using pip version 19.0.3, however version 22.3.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

C:\Users\Admin>
C:\Users\Admin>
C:\Users\Admin>
```

Service Creation Status & Credential Deta

The screenshot shows the IBM Cloud console interface. The top navigation bar includes the IBM logo, a search bar, and links to 'Catalog', 'Manage', and the user's account 'SUBALAKSHMI P's Acc...'. The main content area displays the service 'speech-to-text-nodej-speechtotext-1668749946878' with a status of 'Active'. A sidebar on the left lists management options: 'Manage', 'Getting started', 'Service credentials', 'Plan', and 'Connections'. The 'Manage' tab is selected, showing a 'Start by viewing the tutorial' section with links to 'Getting started tutorial' and 'API reference'. A 'Plan' section on the right shows the 'Lite' plan with an 'Upgrade' button. The 'Credentials' section displays the 'API key' and 'URL' for the service. The API key is masked with dots, and the URL is 'https://api.au-syd.speech-to-text.watson.cloud.ibm.com/...'. The bottom of the screenshot shows the Windows taskbar with the search bar and system clock indicating 11:24 AM on 11/18/2022.

STATUS : ACTIVE

Execution & Test Run of Program to Access TTS:

The screenshot shows a Python script named 'texttospech.py' in a text editor. The script imports 'TextToSpeechV1' from 'ibm_watson' and 'IAMAuthenticator' from 'ibm_cloud_sdk_core.authenticators'. It initializes an 'IAMAuthenticator' with a specific API key and sets the service URL to 'https://api.au-syd.text-to-speech.watson.cloud.ibm.com/...'. The script then opens a file named 'hello_world.wav' and writes the synthesized audio content to it. The output of the script is shown in a separate window, displaying the Python version (3.10.2) and the path to the synthesized audio file: 'C:\Users\ELCOT\Desktop\texttospech.py'.

RESULT : SUCCESSFULLY CREATED.