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LUDHIANA.**

**SCHOOL OF MANAGEMENT STUDIES
DEPARTMENT OF BUSINESS
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Submitted To

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Artificial Intelligence

Submitted By

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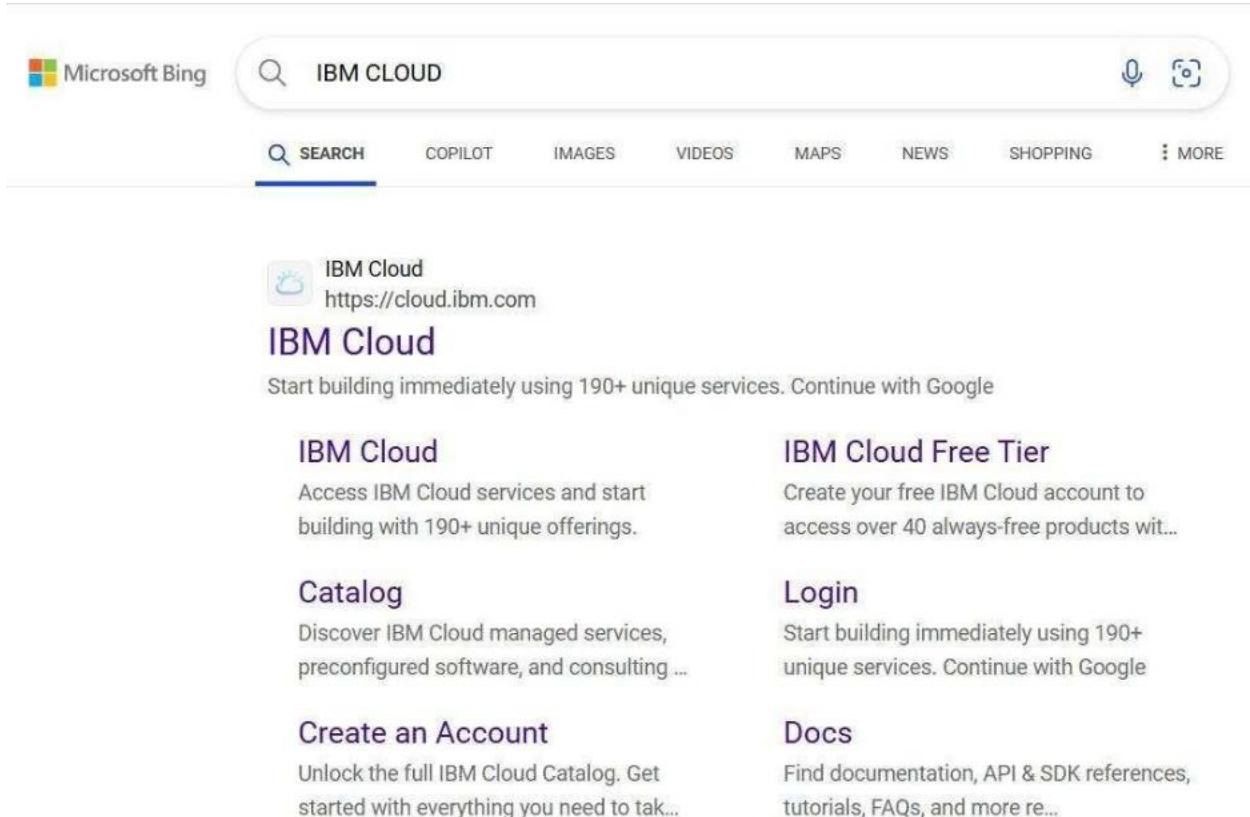
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BBA(E)AI

PRACTICAL – 4

Objective: Create Speech to Text using IBM Cloud.

Step 1: Search for **IBM CLOUD** on a Web Browser.



The screenshot shows a Microsoft Bing search results page. The search bar at the top contains the query "IBM CLOUD". Below the search bar, there are several navigation links: SEARCH (underlined), COPILOT, IMAGES, VIDEOS, MAPS, NEWS, SHOPPING, and MORE. The main search result is for "IBM Cloud" with the URL <https://cloud.ibm.com>. Below this, there are two main sections: "IBM Cloud" and "IBM Cloud Free Tier". Each section has a brief description and a "Continue with Google" button. To the right of each main section, there are two more links: "Catalog" and "Create an Account" under the first section, and "Login" and "Docs" under the second section.

Microsoft Bing

IBM CLOUD

SEARCH COPILOT IMAGES VIDEOS MAPS NEWS SHOPPING MORE

IBM Cloud
<https://cloud.ibm.com>

IBM Cloud

Start building immediately using 190+ unique services. Continue with Google

IBM Cloud
Access IBM Cloud services and start building with 190+ unique offerings.

Catalog
Discover IBM Cloud managed services, preconfigured software, and consulting ...

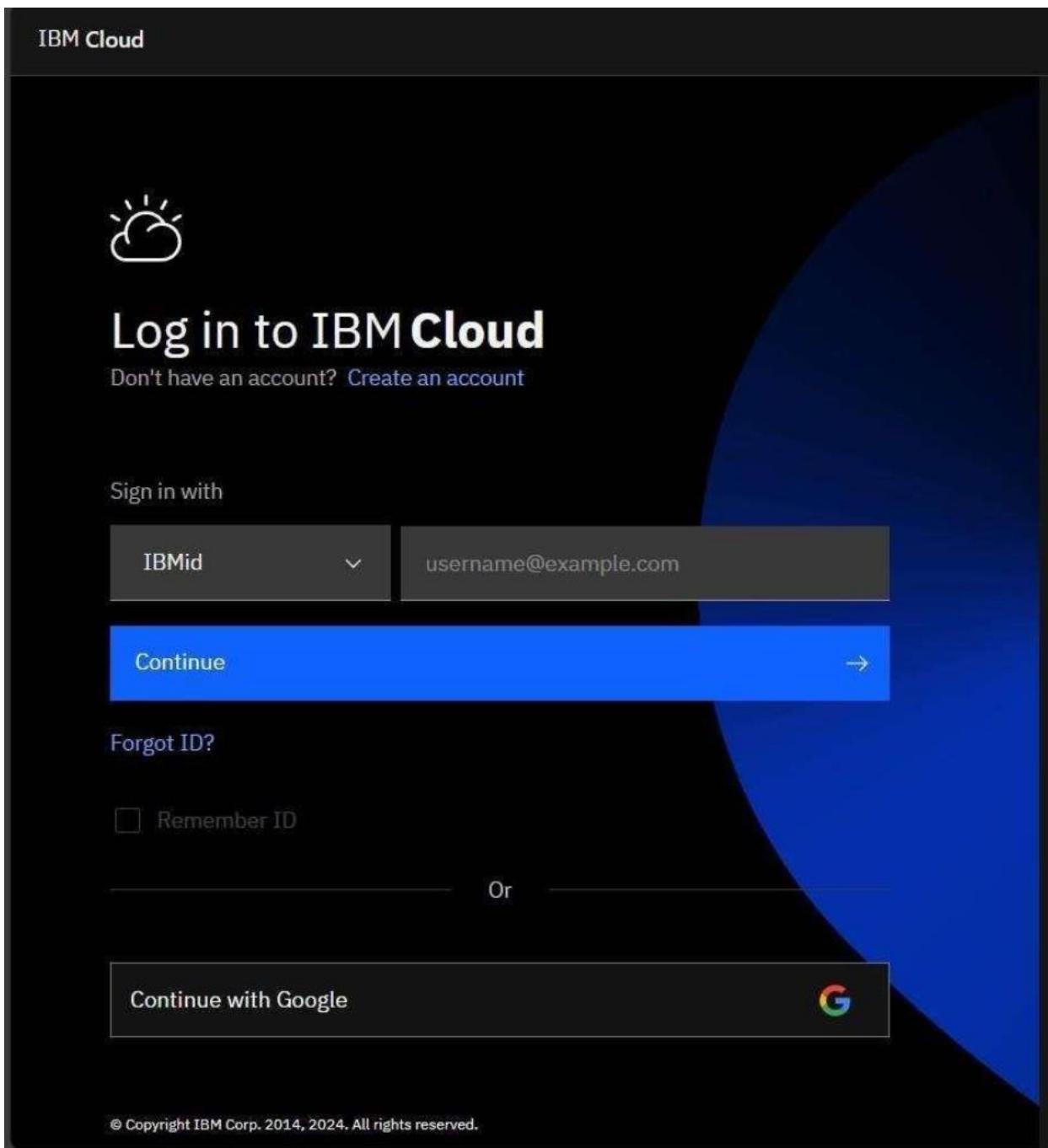
Create an Account
Unlock the full IBM Cloud Catalog. Get started with everything you need to tak...

IBM Cloud Free Tier
Create your free IBM Cloud account to access over 40 always-free products wit...

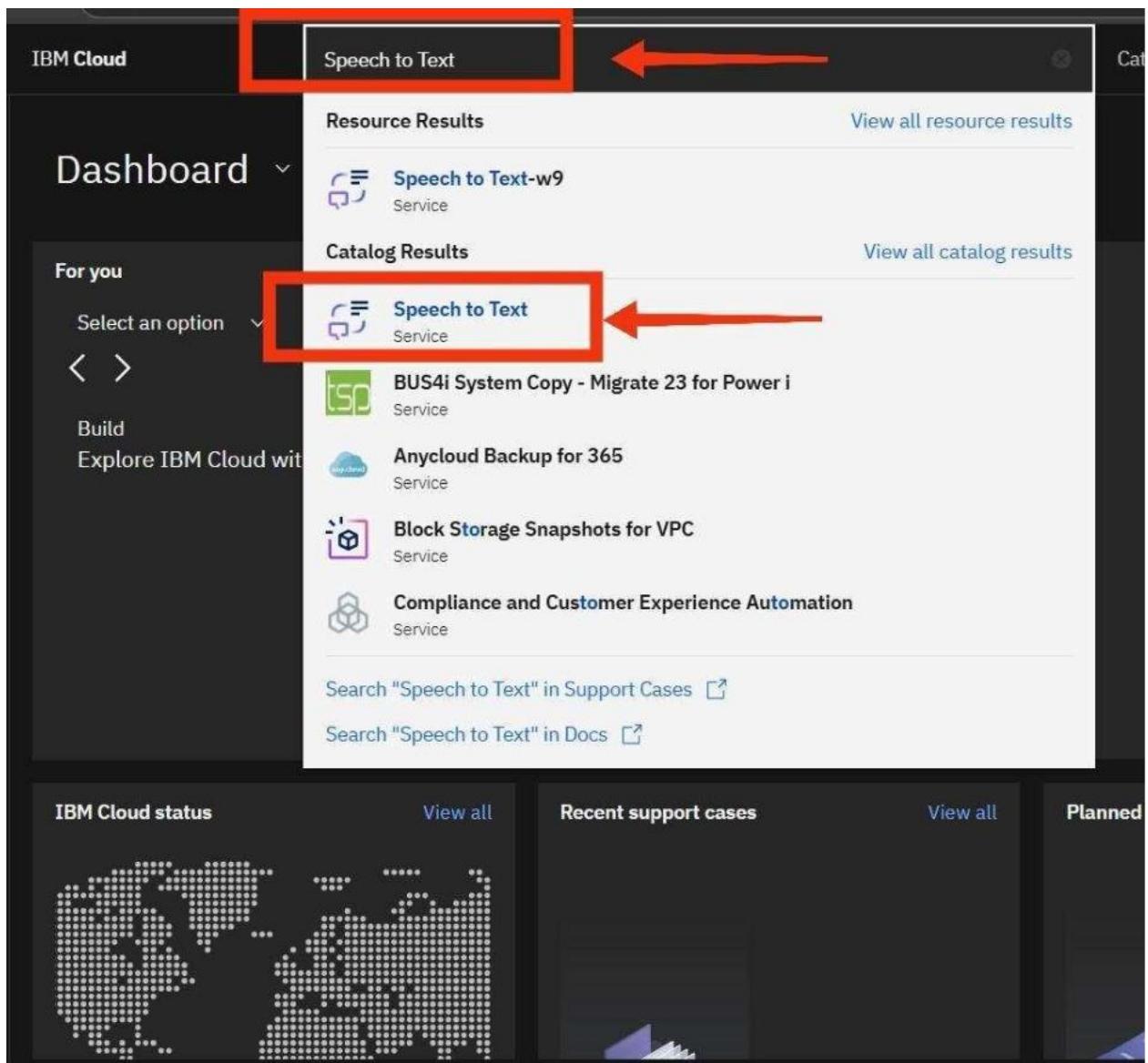
Login
Start building immediately using 190+ unique services. Continue with Google

Docs
Find documentation, API & SDK references, tutorials, FAQs, and more re...

Step 2: Login using your credentials.



Step 3: Search for Speech to Text in the search bar and click on it.



Step 4: Click on view the existing instance or if a new user checkmark the agreements box and click create.

Summary

Speech to Text

Free

Location: Sydney

Plan: Lite

Service name: Speech to Text-e9

Resource group: Default



Existing Lite plan instance



You can have only 1 Lite plan instance of this service per resource group. [Delete](#) your current Lite plan instance in [Default resource group](#), or [create a new one](#), or [view the existing instance](#).

I have read and agree to the following license agreements:

[Terms](#)

[Create](#)

[Add to estimate](#)

Step 5: A Window like this will open.

The screenshot shows the IBM Cloud interface for the 'Speech to Text-w9' service. The top navigation bar includes 'IBM Cloud', a search bar, and account information for 'Arshil Masood's Account'. Below the header, the service name 'Speech to Text-w9' is displayed with an 'Active' status and an 'Add tags' button. A 'Manage' sidebar on the left offers links to 'Getting started', 'Service credentials', and 'Plan'. The main content area features a 'Getting started' tutorial section with a 'Getting started tutorial' button and an 'API reference' link. To the right, a 'Plan' section shows 'Lite' selected and an 'Upgrade' button. At the bottom, there are download and credential management options.

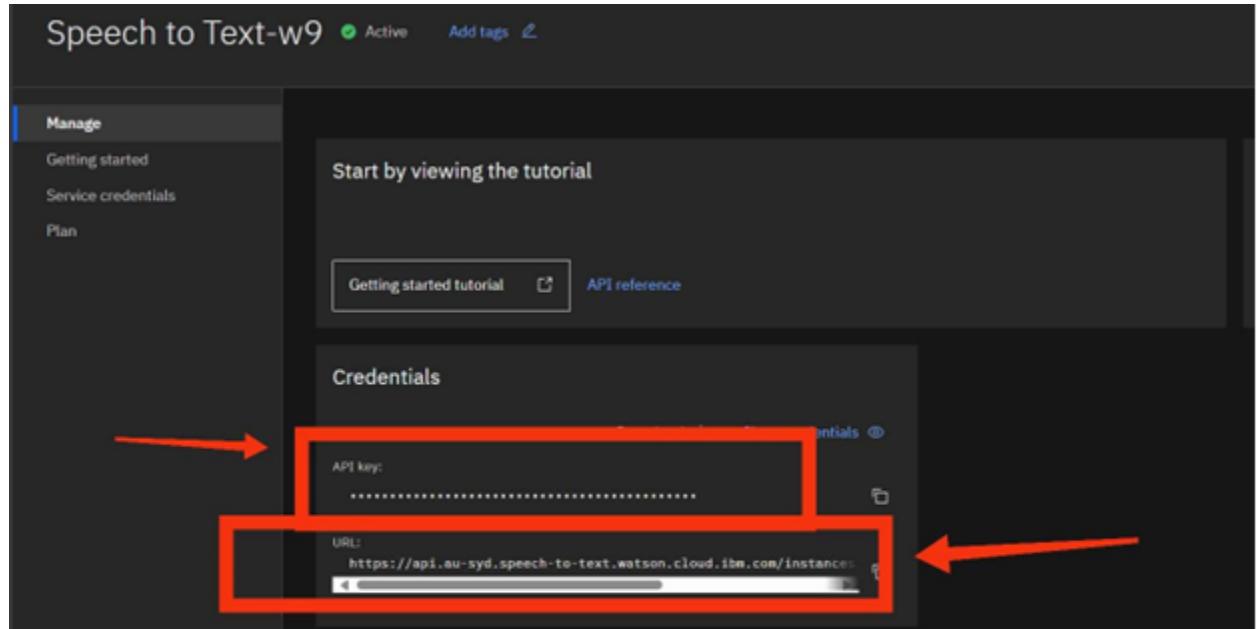
Step 6: Click on **Getting started** and copy the first code snippet on Notepad.

```
$ curl -X POST -u "apikey:{apikey}" \
--header "Content-Type: application/json" \
--header "Accept: audio/wav" \
--data "{\"text\":\"hello world\"}" \
--output hello_world.wav \
"{url}/v1/synthesize?voice=en-US_MichaelV3Voice"
```

The screenshot shows a Notepad window titled 'Text to Speech(Practical -1).txt'. The window has a dark theme with white text. It contains the same 'curl' command as the terminal window above, with specific parts like 'apikey' and 'url' highlighted in red. The menu bar at the top includes 'File', 'Edit', and 'View'.

```
curl -X POST -u "apikey:{apikey}" \
--header "Content-Type: application/json" \
--header "Accept: audio/wav" \
--data "{\"text\":\"hello world\"}" \
--output hello_world.wav \
"{url}/v1/synthesize?voice=en-US_MichaelV3Voice"
```

Step 7: Copy the **apikey** and **url** from the **Manage** section and paste it in Notepad.



```
|for git Bash
curl -X POST -u "apikey:OGZ7FysS3CL8_UscHCh6tCXrqC28ewX7KJL1_0u8hOG" \
--header "Content-Type: audio/wav" \
--data-binary @C:/Users/pc/hello_world.wav \
"https://api.au-syd.speech-to-text.watson.cloud.ibm.com/instances/5082370b-8ad4-412a-8c9e-3d70afc6e10e/v1/recognize"
```

Step 8: Change the file type. Copy the path of the file, paste it in the place of {path_to_file}audio-file.flac and change the “\” of the file path into “/”.

For git bash:

A screenshot of a Windows terminal window titled 'MINGW64/c/Users/pc'. It contains a command-line session:

```
pc@DESKTOP-CM304UV: MINGW64 ~
$ curl -X POST -u "apikey:OGZ7FysS3CL8_UscHCh6tCXrqC28ewX7KJL1_0u8hOG" \
--header "Content-Type: audio/wav" \
--data-binary @C:/Users/pc/hello_world.wav \
"https://api.au-syd.speech-to-text.watson.cloud.ibm.com/instances/5082370b-8ad4-412a-8c9e-3d70afc6e10e/v1/recognize"
bash: \302\226\302\226curl: command not found
f
```

The command is identical to the one shown in the previous step, but it includes the file path 'hello_world.wav' and ends with a 'f' character at the end of the line.

OR

For cmd:

```
C:\Users\pc>curl -X POST -u "apikey:0GZ7FysS3CL8_UscHCmh6tCXrqC28ewX7KJL1_0u8hOG" ^
More? --header "Content-Type: audio/wav" ^
More? --data-binary @C:/Users/pc/hello_world.wav ^
More? "https://api.au-syd.speech-to-text.watson.cloud.ibm.com/instances/5082370b-8ad4-412a-8c9e-3d70afc6e10e/v1/recognize"
/
```

Changing all the ‘\’ (only those which are at the end of the sentences) to ‘^’.

After copying the code and running it on CMD.

Step 9: Hence Speech to Text using CMD is completed.

On git bash:

```
[CHDESKTOP-CM304UV_HINIW64 ~
$ curl -X POST -u "apikey:0GZ7FysS3CL8_UscHCmh6tCXrqC28ewX7KJL1_0u8hOG" \
--header "Content-Type: audio/wav" \
--data-binary @C:/Users/pc/hello_world.wav \
"https://api.au-syd.speech-to-text.watson.cloud.ibm.com/instances/5082370b-8ad4-412a-8c9e-3d70afc6e10e/v1/recognize"
{
  "result_index": 0,
  "results": [
    {
      "final": true,
      "alternatives": [
        {
          "transcript": "hello world",
          "confidence": 0.99
        }
      ]
    }
  ]
}
```

On cmd:-

```
C:\Users\pc>curl -X POST -u "apikey:0GZ7FysS3CL8_UscHCmh6tCXrqC28eWX7KJLl_0u8h0G" ^
More? --header "Content-Type: audio/wav" ^
More? --data-binary @C:/Users/pc/hello_world.wav ^
More? "https://api.au-syd.speech-to-text.watson.cloud.ibm.com/instances/5082370b-8ad4-412a-8c9e-3d70afc6e10e/v1/recognize"
{
  "result_index": 0,
  "results": [
    {
      "final": true,
      "alternatives": [
        {
          "transcript": "hello world",
          "confidence": 0.99
        }
      ]
    }
  ]
}
C:\Users\pc>
C:\Users\pc>
```