



# Alexa Project

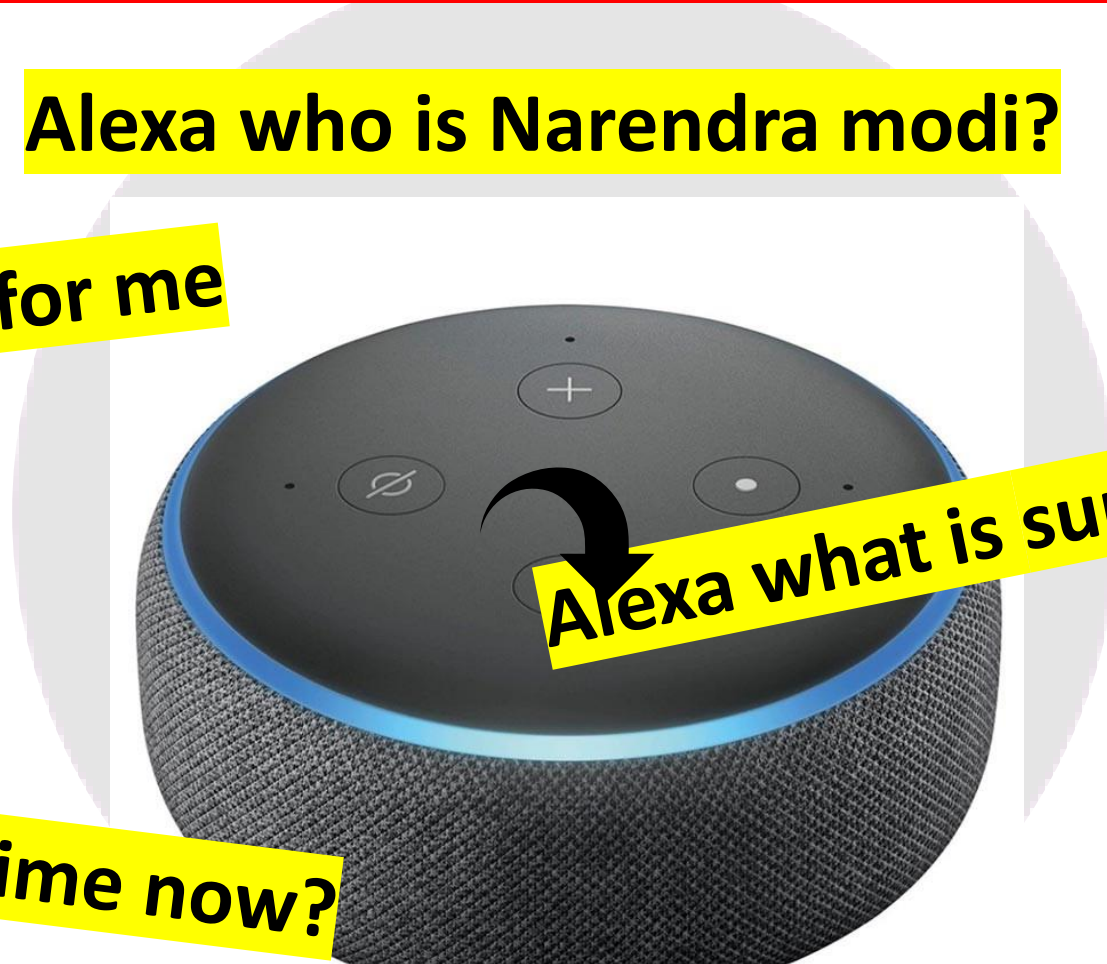
**Sorry, I can't process your request. Try again!**

**Alexa who is Narendra modi?**

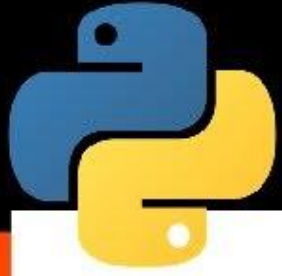
**Alexa play a song for me**

**Alexa what is suresh techs channel?**

**Alexa what is the time now?**



**Best Telugu Tech channel in YouTube**



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# PYTHON

## 11 గంటల్లో

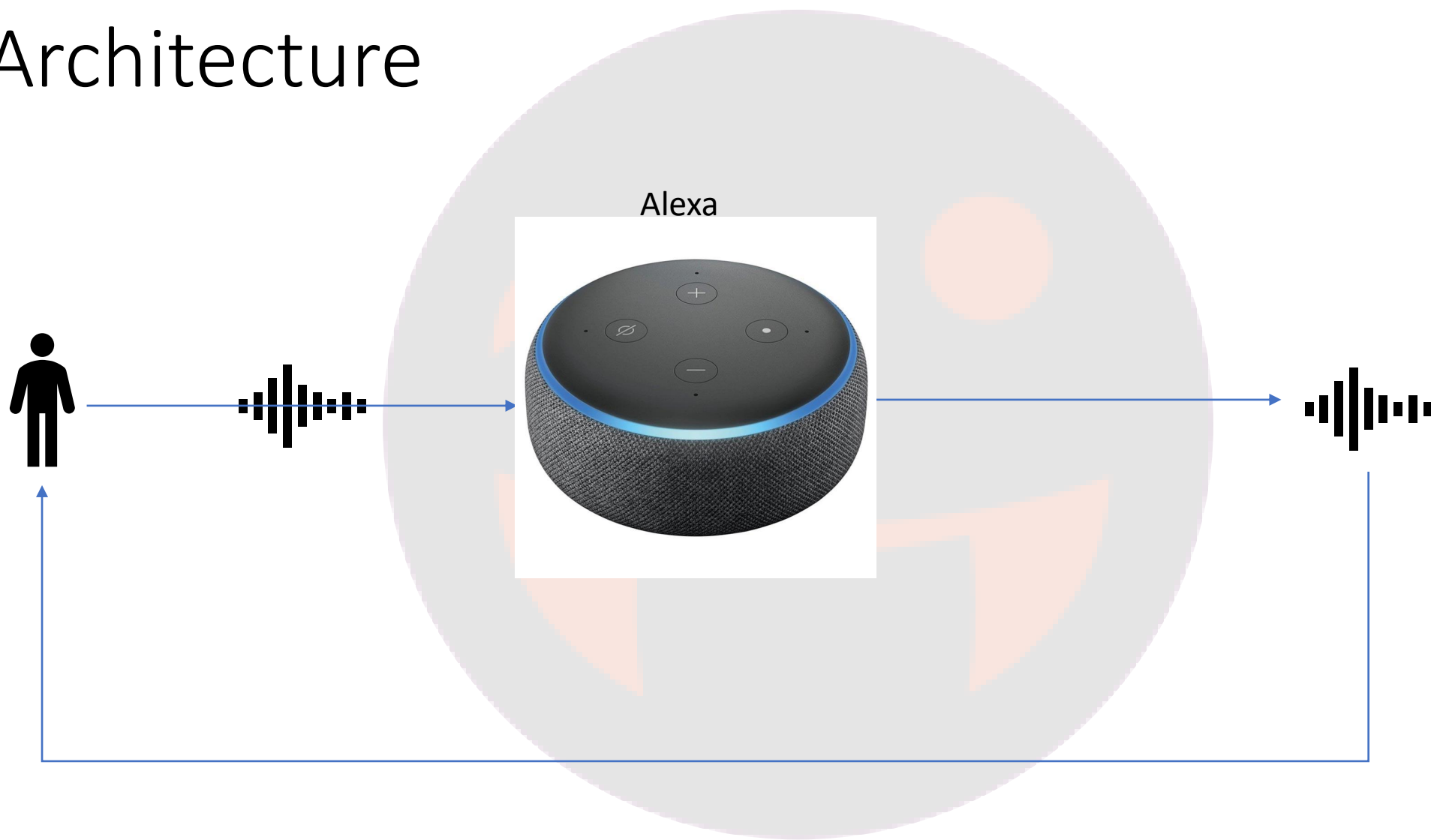
## నేర్చుకోండి

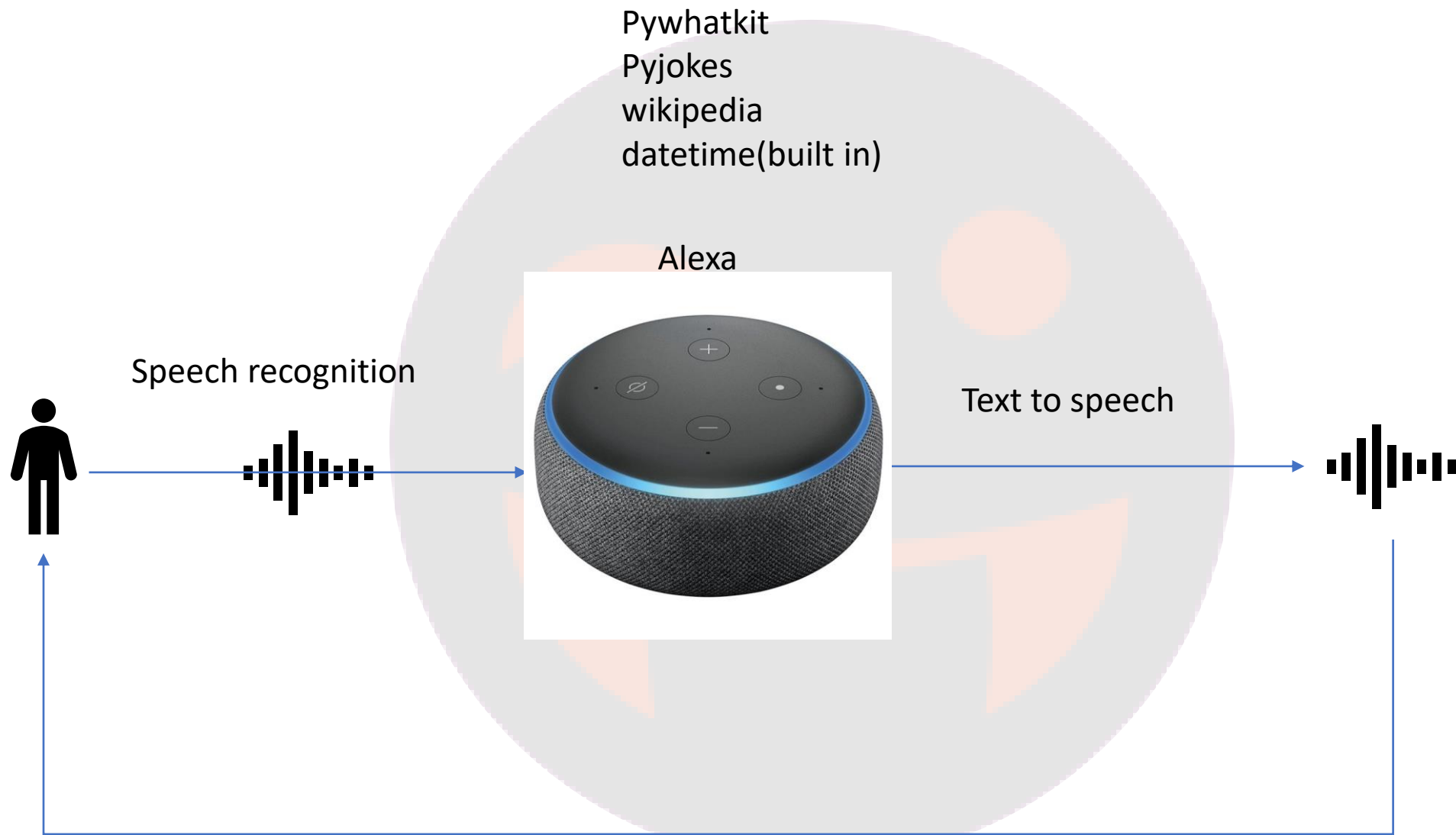




**Let's get started**

# Architecture





# Three parts

- User voice to text (speech to text->speech recognition)
- Process the text using libraries like pywhatkit, wikipedia,pyjokes etc and get the result in text
- Convert text to voice(text to speech)

# Notepad++ or IDE

- Since it is a project, let's use IDE(PYCHARM)
- <https://www.jetbrains.com/pycharm/download/#section=windows>



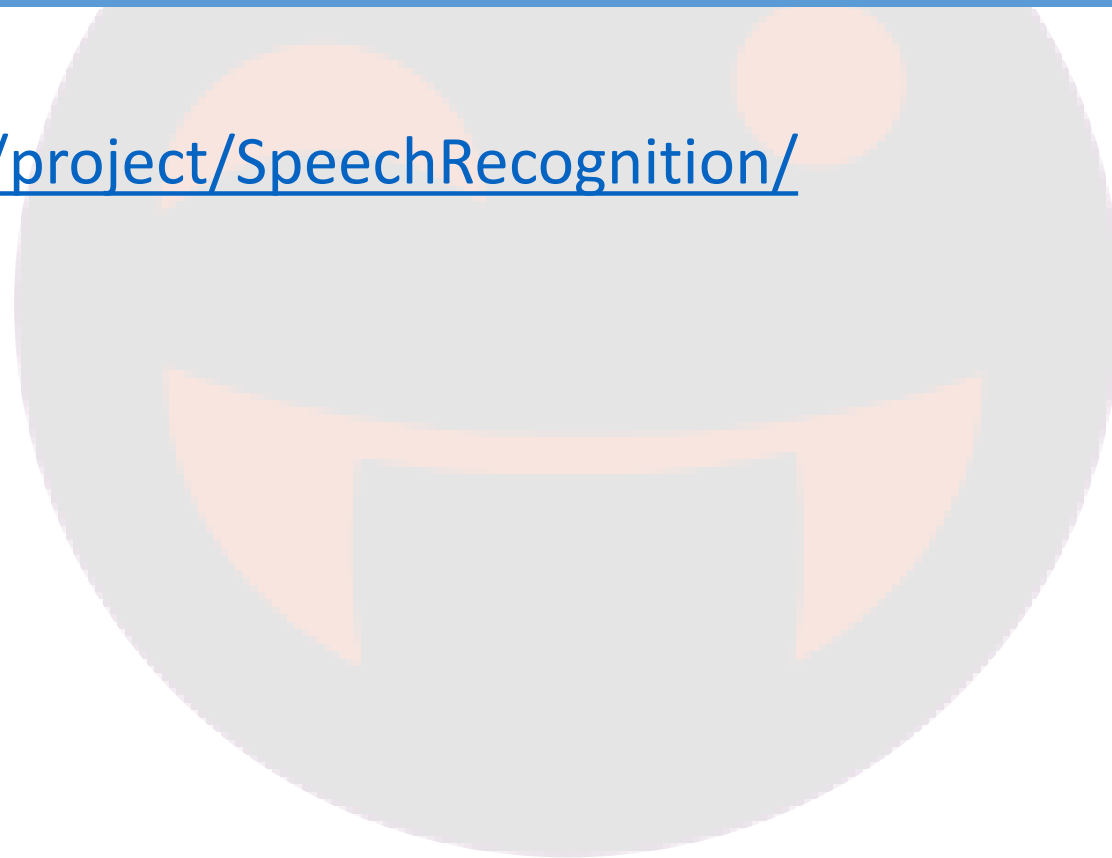
# PART 1

VOICE TO TEXT



# Speech recognition

- <https://pypi.org/project/SpeechRecognition/>



# Pyaudio error

```
(venv) C:\Users\YADAMS\PycharmProjects\fun>pip install pyaudio
Collecting pyaudio
  Downloading PyAudio-0.2.11.tar.gz (37 kB)
Using legacy 'setup.py install' for pyaudio, since package 'wheel' is not installed.
Installing collected packages: pyaudio
  Running setup.py install for pyaudio ... error
  ERROR: Command errored out with exit status 1:
   command: 'c:\users\yadams\pycharmprojects\fun\venv\scripts\python.exe' -u -c 'import io, os, sys, setuptools, tokenize; sys.argv[0] = '"'"'C:\\Users\\YADAMS\\AppData\\Local\\Temp\\pip-install-br5z4xr6\\pyaudio_f0c2cb69a97540fe81381ccb82002b6a\\setup.py'"'"'; __file__ = '"'"'C:\\Users\\YADAMS\\AppData\\Local\\Temp\\pip-install-br5z4xr6\\pyaudio_f0c2cb69a97540fe81381ccb82002b6a\\setup.py'"'"'; f = getattr(tokenize, '"'"'open'"'"', open)(__file__) if os.path.exists(__file__) else io.StringIO('"'"'from setuptools import setup; setup()'"'"'); code = f.read().replace('"'"'\r\n'"'"', '"'"'\n'"'"'); f.close(); exec(compile(code, __file__, '"'"'exec'"'"'))' install --record 'C:\Users\YADAMS\AppData\Local\Temp\pip-record-krx704gw\install-record.txt' --single-version-external
ly-managed --compile --install-header
s 'c:\users\yadams\pycharmprojects\fun\venv\include\site\python3.7\pyaudio'
   cwd: C:\Users\YADAMS\AppData\Local\Temp\pip-install-br5z4xr6\pyaudio_f0c2cb69a97540fe81381ccb82002b6a\
  Complete output (9 lines):
  running install
  running build
  running build_py
  creating build
  creating build\lib.win32-3.7
  copying src\pyaudio.py -> build\lib.win32-3.7
  running build_ext
  building '_portaudio' extension
  error: Microsoft Visual C++ 14.0 or greater is required. Get it with "Microsoft C++ Build Tools": https://visualstudio.microsoft.com/visual-cpp-build-tools/
```

If you get  
error

```
pip install pipwin
```

```
pipwin install pyaudio
```



# pipwin install pyaudio

```
(venv) C:\Users\YADAMS\PycharmProjects\fun>pipwin install pyaudio
Building cache. Hang on . . .
Done
Package `pyaudio` found in cache
Downloading package . . .
https://download.lfd.uci.edu/pythonlibs/r4tycu3t/PyAudio-0.2.11-cp37-cp37m-win32.whl
PyAudio-0.2.11-cp37-cp37m-win32.whl
[*] 95 kB / 95 kB @ 29 kB/s [#####] [100%, 0s left]
Processing c:\users\yadams\pipwin\pyaudio-0.2.11-cp37-cp37m-win32.whl
Installing collected packages: PyAudio
Successfully installed PyAudio-0.2.11
```

# Text to speech installation

```
(venv) C:\Users\YADAMS\PycharmProjects\fun>pip install pyttsx3
```

```
Collecting pyttsx3
```

```
  Downloading pyttsx3-2.90-py3-none-any.whl (39 kB)
```

```
Collecting pypiwin32
```

```
  Downloading pypiwin32-223-py3-none-any.whl (1.7 kB)
```

```
Collecting pywin32
```

```
  Downloading pywin32-301-cp37-cp37m-win32.whl (8.5 MB)
```

```
    |██████████████████████████████████████| 8.5 MB 1.6 MB/s
```

```
Collecting comtypes
```

```
  Downloading comtypes-1.1.10.tar.gz (145 kB)
```

```
    |██████████████████████████████████████| 145 kB 1.6 MB/s
```

```
Building wheels for collected packages: comtypes
```

```
  Building wheel for comtypes (setup.py) ... done
```

```
  Created wheel for comtypes: filename=comtypes-1.1.10-py3-none-any.whl size=164937 sha256=13d9fb074244a6d0e5b2a4fd27fabaa3972a65c0e84794037d0380c867bf440c
```

```
  Stored in directory: c:\users\yadams\appdata\local\pip\cache\wheels\ac\d9\86\f150377841ceef17cc9831ead2989c241b39e973269b347653
```

```
Successfully built comtypes
```

```
Installing collected packages: pywin32, pypiwin32, comtypes, pyttsx3
```

# Divide our program into pieces

- Take command from user by removing Alexa
- Process the command
- Once the result is out, listen for next question again

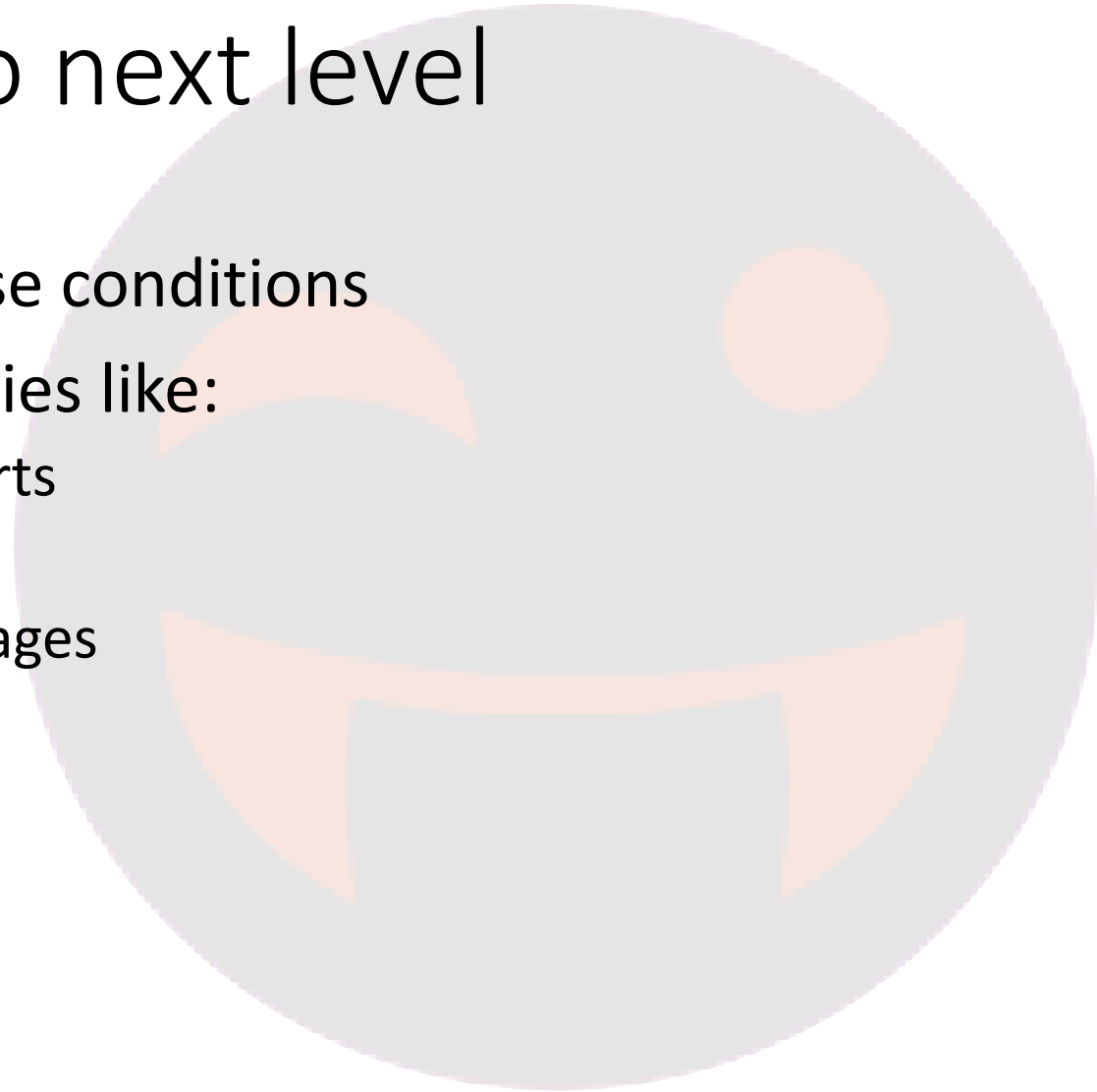


# Let's add some fun questions

- Alexa what is your age
  - Sorry you should not ask age to girls. Ask me another question
- Alexa sing a song for me
  - Ok sure, "Aasha pasham"
- Alexa who is your favorite cricketer
  - Mithali Raj
- Alexa I love you
  - Chepputo kodata

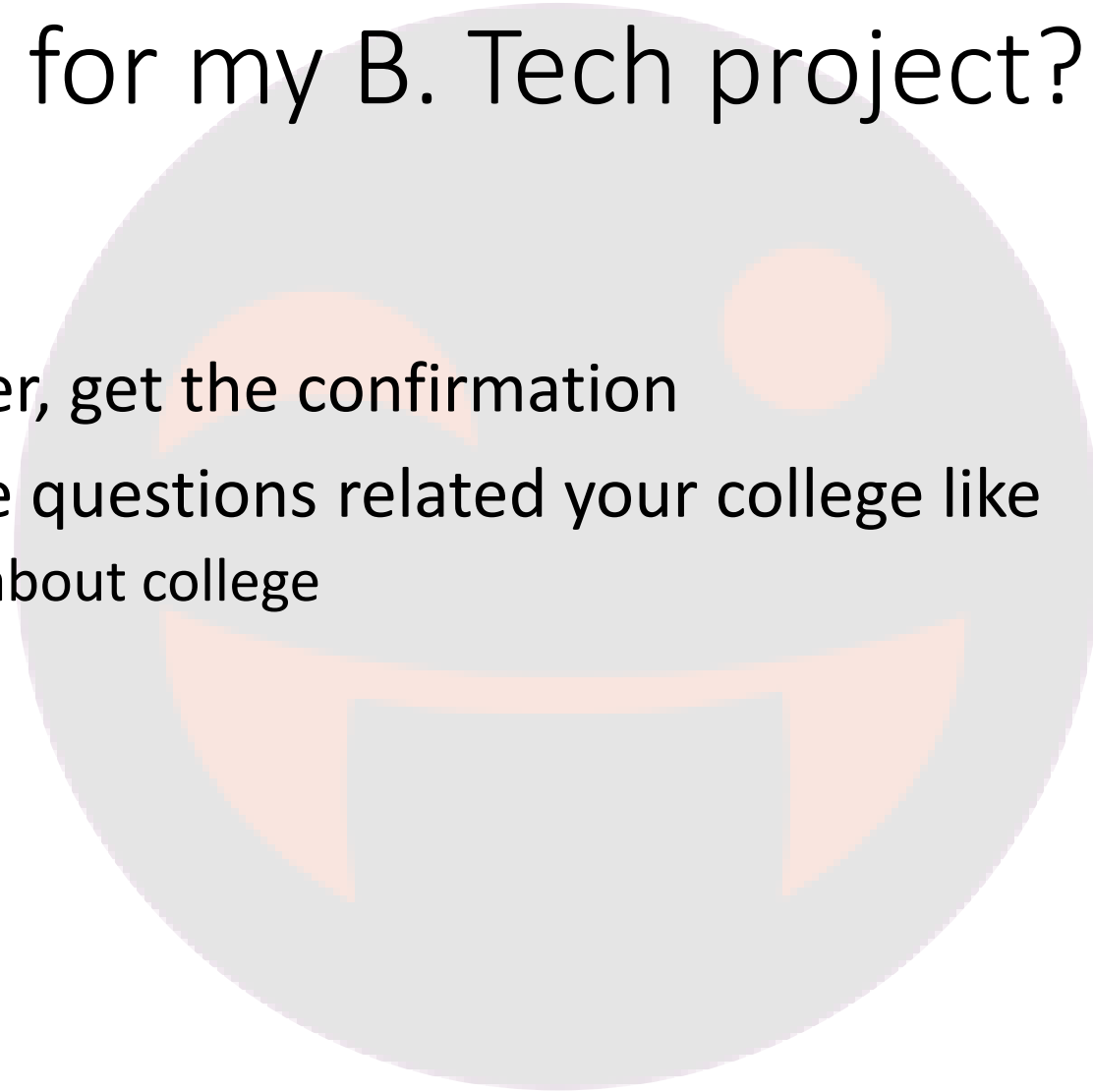
# Extend it to next level

- Use better if else conditions
- Use more libraries like:
  - Weather reports
  - Phone calls
  - Sending messages



# Can I use it for my B. Tech project?

- Absolutely YES
- Ask your teacher, get the confirmation
- Try to add more questions related your college like
  - Alexa tell me about college



# Support our channel

1

Please like this video

2

Share this video to  
your friends

3

Subscribe to our  
channels



# PYTHON

## చిన్న ప్రో చిట్టికలో వచ్చేస్తా

#sureshtechs



# COMMON ERRORS

# r.recognize\_sphinx(audio)

Traceback (most recent call last):

File "[C:\Users\YADAMS\PycharmProjects\fun\venv\lib\site-packages\speech\\_recognition\\\_\\_init\\_\\_.py](C:\Users\YADAMS\PycharmProjects\fun\venv\lib\site-packages\speech_recognition\__init__.py)", line 729, in recognize\_sphinx

from pocketsphinx import pocketsphinx, Jsgf, FsgModel

ModuleNotFoundError: No module named 'pocketsphinx'

|

During handling of the above exception, another exception occurred:

# pocketsphinx

- `python -m pip install --upgrade pip setuptools wheel`
- `pip install --upgrade pocketsphinx`

```
(venv) C:\Users\YADAMS\PycharmProjects\fun>
```

```
(venv) C:\Users\YADAMS\PycharmProjects\fun>python -m pip install --upgrade pip setuptools wheel
```

```
Requirement already satisfied: pip in c:\users\yadams\pycharmprojects\fun\venv\lib\site-packages (21.1.3)
```

```
Requirement already satisfied: setuptools in c:\users\yadams\pycharmprojects\fun\venv\lib\site-packages (57.2.0)
```

```
Collecting wheel
```

```
  Using cached wheel-0.36.2-py2.py3-none-any.whl (35 kB)
```

```
Installing collected packages: wheel
```

```
Successfully installed wheel-0.36.2
```



# pip install --upgrade pocketsphinx

```
(venv) C:\Users\YADAMS\PycharmProjects\fun>pip install --upgrade pocketsphinx
```

```
Collecting pocketsphinx
```

```
Using cached pocketsphinx-0.1.15.tar.gz (29.1 MB)
```

```
Building wheels for collected packages: pocketsphinx
```

```
Building wheel for pocketsphinx (setup.py) ... error
```

```
ERROR: Command errored out with exit status 1:
```

```
command: 'c:\users\yadams\pycharmprojects\fun\venv\scripts\python.exe' -u -c 'import io, os, sys, setuptools, tokenize; sys.argv[0] = '''C:\\Us
cketsphinx_99aa7c66deea46738e1b6b6e41c88fe9\\setup.py''''; __file__='''C:\\Users\\YADAMS\\AppData\\Local\\Temp\\pip-install-g18dyrqv\\pocketsphin
tr(tokenize, '''open''', open)(__file__) if os.path.exists(__file__) else io.StringIO(''''from setuptools import setup; setup()'''));code = f.
(compile(code, __file__, '''exec'''))' bdist_wheel -d 'C:\Users\YADAMS\AppData\Local\Temp\pip-wheel-cg6x6hnm'
```

```
cwd: C:\Users\YADAMS\AppData\Local\Temp\pip-install-g18dyrqv\pocketsphinx_99aa7c66deea46738e1b6b6e41c88fe9\
```

```
Complete output (6 lines):
```

```
running bdist_wheel
```

```
running build_ext
```

```
building 'sphinxbase._sphinxbase' extension
```

```
swigging deps/sphinxbase/swig/sphinxbase.i to deps/sphinxbase/swig/sphinxbase_wrap.c
```



```
swig.exe -python -modern -threads -Ideps/sphinxbase/include -Ideps/sphinxbase/include/sphinxbase -Ideps/sphinxbase/include/win32 -Ideps/sphinxbase
_wrap.c deps/sphinxbase/swig/sphinxbase.i
```

```
error: command 'swig.exe' failed: No such file or directory
```

```
-----
```

# swig error

- It requires some compiling tool like swig
- <http://www.swig.org/download.html>
- <https://stackoverflow.com/questions/44504899/installing-pocketsphinx-python-module-command-swig-exe-failed>



```
C:\Users\YADAMS>where python  
C:\Users\YADAMS\AppData\Local\Programs\Python\Python37-32\python.exe
```

Where python installed?