

Final Working Alexa Voice Assistant in Python

This PDF contains a clean, beginner-friendly version of the Alexa Voice Assistant code in Python. It includes proper error handling, better speech output, and works smoothly when required packages are installed.

```
import speech_recognition as sr
import pyttsx3
import pywhatkit
import wikipedia
import pyjokes
import datetime

# Initialize the recognizer and text-to-speech engine
listener = sr.Recognizer()
engine = pyttsx3.init()

# Set female voice (optional)
voices = engine.getProperty('voices')
engine.setProperty('voice', voices[1].id) # You can use [0] for male voice

def talk(text):
    # Convert text to speech
    print("Alexa:", text)
    engine.say(text)
    engine.runAndWait()

def take_command():
    # Listen to user's voice and recognize the command
    command = ""
    try:
        with sr.Microphone() as source:
            print("Listening...")
            listener.adjust_for_ambient_noise(source)
            voice = listener.listen(source)
            command = listener.recognize_google(voice)
            command = command.lower()
            if 'alexa' in command:
                command = command.replace('alexa', '').strip()
                print("You said:", command)
    except sr.UnknownValueError:
        print("Sorry, I didn't understand that.")
    except sr.RequestError:
        print("Network error. Check your internet connection.")
    return command

def run_alexa():
    # Process the command and respond accordingly
    command = take_command()

    if 'play' in command:
        song = command.replace('play', '').strip()
        talk("Playing " + song)
        pywhatkit.playonyt(song)

    elif 'time' in command:
        time = datetime.datetime.now().strftime('%I:%M %p')
        talk("The current time is " + time)

    elif 'who is' in command or 'who the heck is' in command:
        person = command.replace('who the heck is', '').replace('who is', '').strip()
        info = wikipedia.summary(person, 1)
        print(info)
        talk(info)

    elif 'date' in command:
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        talk("Sorry, I have a headache today.")

    elif 'are you single' in command:
        talk("I am in a relationship with Wi-Fi.")

    elif 'joke' in command:
        talk(pyjokes.get_joke())

    elif command != "":
        talk("Please say the command again.")
    else:
        pass # No voice detected, ignore silently

# Run Alexa continuously
while True:
    run_alex()

```

Setup Instructions:

1. Install the required libraries using this command:
`pip install SpeechRecognition pytsx3 pywhatkit wikipedia pyjokes pyaudio`
2. If pyaudio gives an error, install it this way:
`pip install pipwin`
`pipwin install pyaudio`
3. Ensure your microphone works properly and internet is connected.
4. Run the script in your terminal or any Python IDE.
5. Stop the program anytime using Ctrl + C.