

Program Flow:

1. Input Data

```
import speech_recognition as sr
import pyttsx3

# Voice output setup
engine = pyttsx3.init()
def speak(text):
    engine.say(text)
    engine.runAndWait()

# Voice input
def get_command():
    recognizer = sr.Recognizer()
    with sr.Microphone() as source:
        print("Ungal kural kaekkiren...")
        recognizer.adjust_for_ambient_noise(source)
        audio = recognizer.listen(source)
    try:
        command = recognizer.recognize_google(audio,
        language='en-IN').lower() print("Neenga sonna:",
        command)
        return command
    except sr.UnknownValueError:
        speak("Sorry, puriyala.")
        return ""
    except sr.RequestError:
        speak("Internet problem.")
        return ""

# Simulated appliance

def control_appliance(command):
```

```
if "turn on light" in command:
    print("Light ON aayiduchu (simulation)") speak("Light turned on")
elif "turn off light" in command:
    print("Light OFF aayiduchu (simulation)") speak("Light turned off")
elif "turn on fan" in command:
    print("Fan ON aayiduchu (simulation)") speak("Fan turned on")
elif "turn off fan" in command:
    print("Fan OFF aayiduchu (simulation)") speak("Fan turned off")
elif "exit" in command or "stop" in command: speak("Exiting. Thank you.")
exit()
else:
    speak("Command puriyala.")
```

Main loop

```
while True:
    command = get_command()
    control_appliance(command)
```

Output:

