

**A MOOC COURSE REPORT ON
(PERSONAL SUPPORT ASSISTANT SOFTWARE)
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under the guidance of

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**Under the governing (NPTEL /COURSEERA/SEMINAR/ INDUSTRIAL TRAINING) body
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Project - Seminar Report

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ALICE !

support specialist...



WHAT IS THIS....?

Alice is your personal support specialist

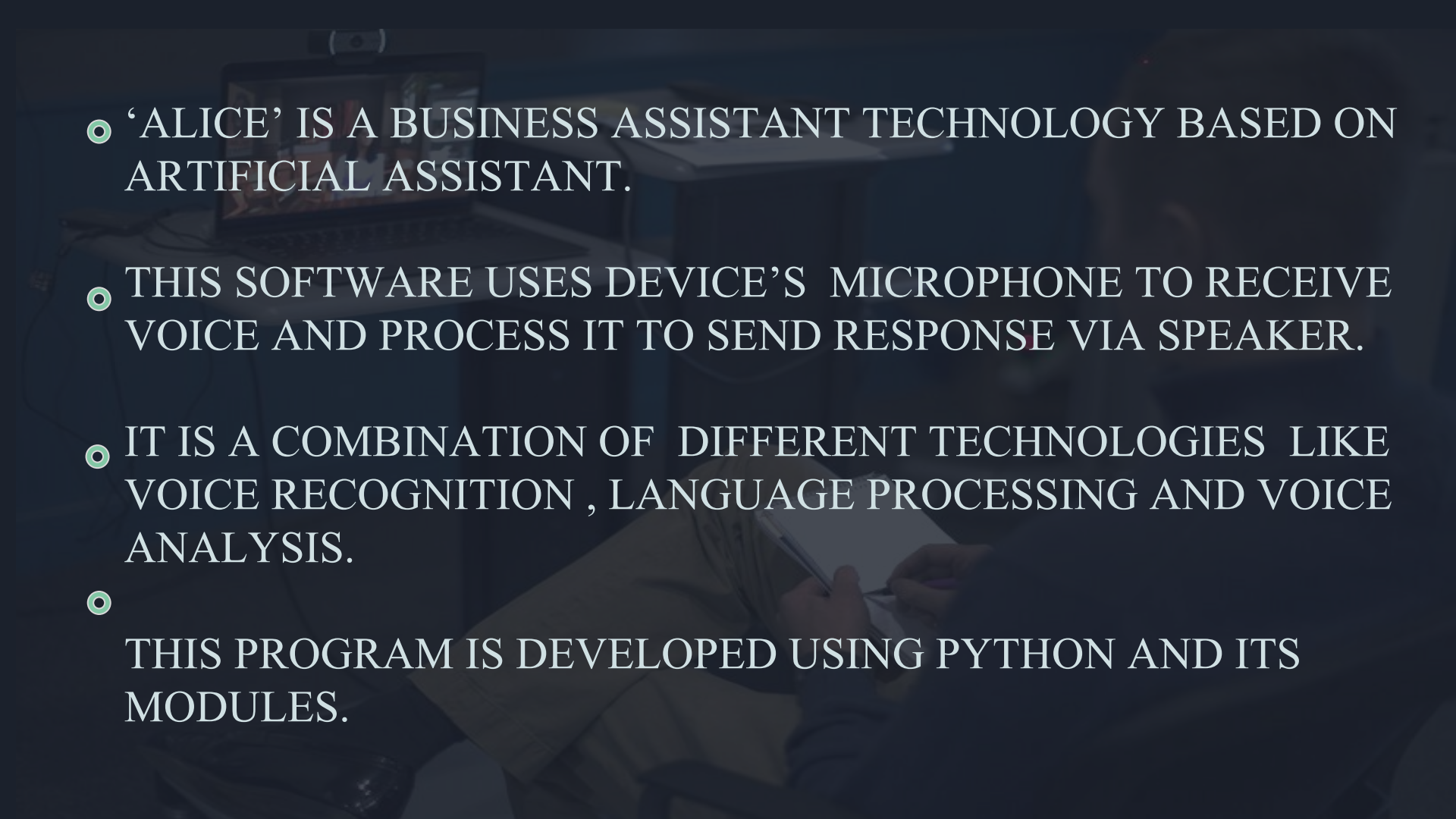
!

You can command it to perform

various tasks such as calculating sums

or opening applications and even

listening to music and surf the internet

- 
- A person is sitting at a desk, using a laptop. The laptop screen shows a video call or a presentation. The person's hands are visible, holding a pen and writing on a notepad. The background is dark and out of focus.
- 'ALICE' IS A BUSINESS ASSISTANT TECHNOLOGY BASED ON ARTIFICIAL ASSISTANT.
 - THIS SOFTWARE USES DEVICE'S MICROPHONE TO RECEIVE VOICE AND PROCESS IT TO SEND RESPONSE VIA SPEAKER.
 - IT IS A COMBINATION OF DIFFERENT TECHNOLOGIES LIKE VOICE RECOGNITION , LANGUAGE PROCESSING AND VOICE ANALYSIS.
 - THIS PROGRAM IS DEVELOPED USING PYTHON AND ITS MODULES.

Week1 Progress check:

```
def takeCommand():
    #It takes microphone input from the user and returns string output

    r = sr.Recognizer()
    with sr.Microphone() as source:
        print("listening that")
        r.pause_threshold = 1
        audio = r.listen(source)
    try:
        print("Recognizing!")
        query = r.recognize_google(audio, language='en-in')
        print(f"User said: {query}\n")

    except Exception as e:
        # print(e)
        print(" Please say that again...")

    return "None"
return query
```

DEFINING
VOICE
RECOGNIZER

Week 2 Progress check:

USING INBUILT LIBRARIES

```
# Logic for executing tasks based on query
if 'wikipedia' in query:
    speak('Searching Wikipedia...')
    query = query.replace("wikipedia", "")
    results = wikipedia.summary(query, sentences=2)
    speak("According to Wikipedia")
    print(results)
    speak(results)

elif "youtube" in query:
    speak("This is what I found for your search!")
    query = query.replace("youtube search", "")
    query = query.replace("youtube", "")
    query = query.replace("jarvis", "")
    web = "https://www.youtube.com/results?search_query=" + query
    webbrowser.open(web)
    pywhatkit.playonyt(query)
```

The assistant will:

- GREET YOU AS PER REAL TIME.
- FIND INFORMATION FROM WEB / WEATHER AND DATE TIME.
- CONTROL YOUR MUSIC.
- PLAY CONTENT FROM YOUTUBE USING CHROME.
- OPEN OTHER SOFTWARE LIKE VSCODE AND BROWSER.

The assistant will:

- ◉ REPLY WHEN QUESTIONED..
- ◉ CALCULATE MATHS PROBLEMS..
- ◉ SEARCH WIKIPEDIA USING BROWSER..

Week 3 Progress check:

BROWSER AND TEMPERATURE FUNCTION

```
elif 'open browser' in query:
    webbrowser.open("google.com")

elif 'open quora' in query:
    webbrowser.open("quora.com")

elif "temperature" in query:
    search = "temperature in modinagar"
    url = f"https://www.google.com/search?q={search}"
    r = requests.get(url)
    data = BeautifulSoup(r.text, "html.parser")
    temp = data.find("div", class_ = "BNeawe").text
    speak(f"current{search} is {temp}")
elif "weather" in query:
    search = "temperature in modinagar"
    url = f"https://www.google.com/search?q={search}"
    r = requests.get(url)
    data = BeautifulSoup(r.text, "html.parser")
    temp = data.find("div", class_ = "BNeawe").text
    speak(f"current{search} is {temp}")
```

Week 4 Progress check:

```
elif 'play music' in query:
    music_dir = 'C:\\songs'
    songs = os.listdir(music_dir)
    print(songs)
    os.startfile(os.path.join(music_dir, songs[1]))
    os.startfile(os.path.join(music_dir, songs[2]))
    os.startfile(os.path.join(music_dir, songs[3]))
```

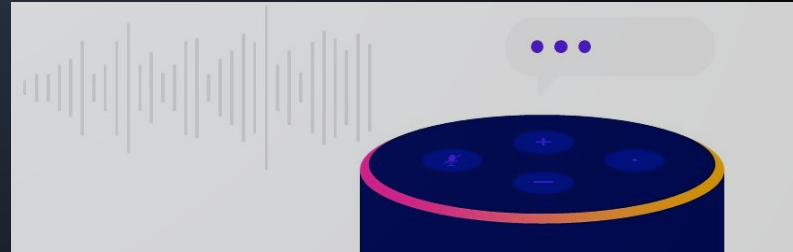
```
elif 'the time' in query:
    strTime = datetime.datetime.now().strftime("%H:%M:%S")
    speak(f"Sir, the time is {strTime}")
```

```
elif "who made you" in query or "who created you" in query:
    speak("I have been created by Chinmaya.")
```

**MUSIC PLAYER &
TIME &
CREATOR
FUNCTION**

HOW IT WORKS ? ..

1. USER ASK ASSISTANT TO PERFORM THE TASK.
1. THE NATURAL LANGUAGE AUDIO SIGNAL INTO DIGITAL DATA THAT CAN BE ANALYSED BY THE SOFTWARE.



3. COMPARED WITH THE DATABASE OF SOFTWARE USING INNOVATIVE ALGORITHM TO FIND A SUITABLE ANSWER.

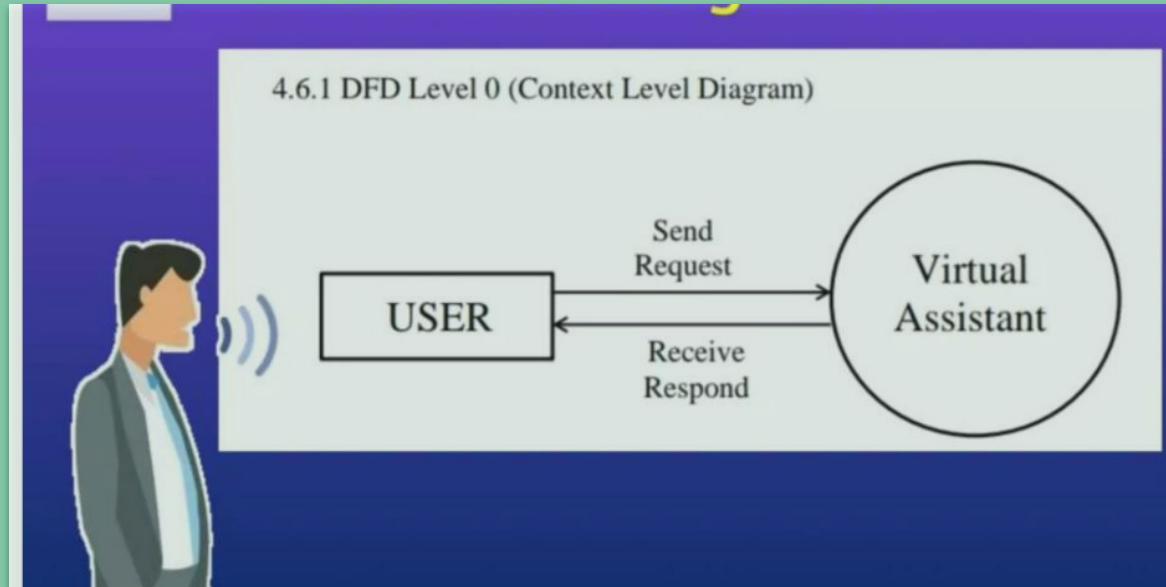
4. THIS DATABASE IS LOCATED ON DISTRIBUTED SERVERS IN CLOUD NETWORKS.

5. FOR THIS REASON IT MUST HAVE A RELIABLE INTERNET CONNECTION .





DATA FLOW DIAGRAM...



Week 5 Progress check:

elif "calculate" in query:

```
app_id = "TWY6XY-86VU5RA3LA"
client = wolframalpha.Client(app_id)
indx = query.lower().split().index('calculate')
query = query.split()[indx + 1:]
res = client.query(' '.join(query))
answer = next(res.results).text
print("The answer is " + answer)
speak("The answer is " + answer)
```

elif "day" in query:

```
day = datetime.datetime.today().weekday() + 1
```

```
Day_dict = {1: 'Monday', 2: 'Tuesday', 3: 'Wednesday',
            4: 'Thursday', 5: 'Friday', 6: 'Saturday',
            7: 'Sunday'}
```

**MUSIC PLAYER &
TIME &
CREATOR
FUNCTION**

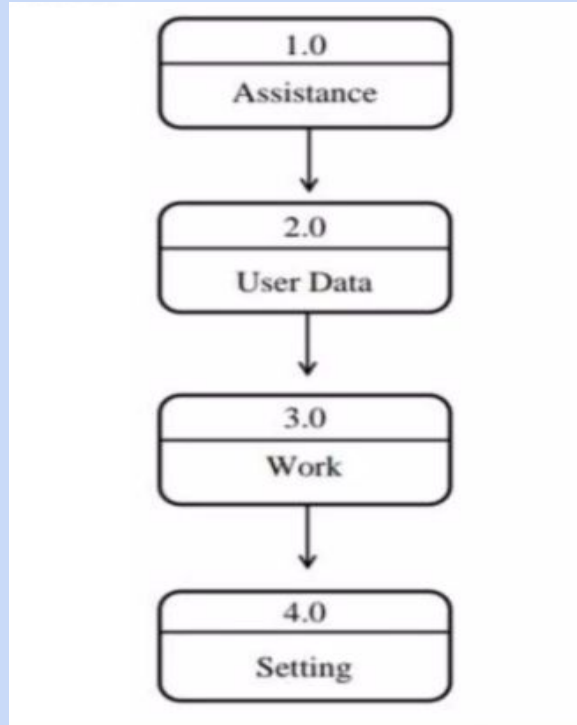
Week 6 Progress check:

GOOGLE SEARCH AND EXIT FUNC.

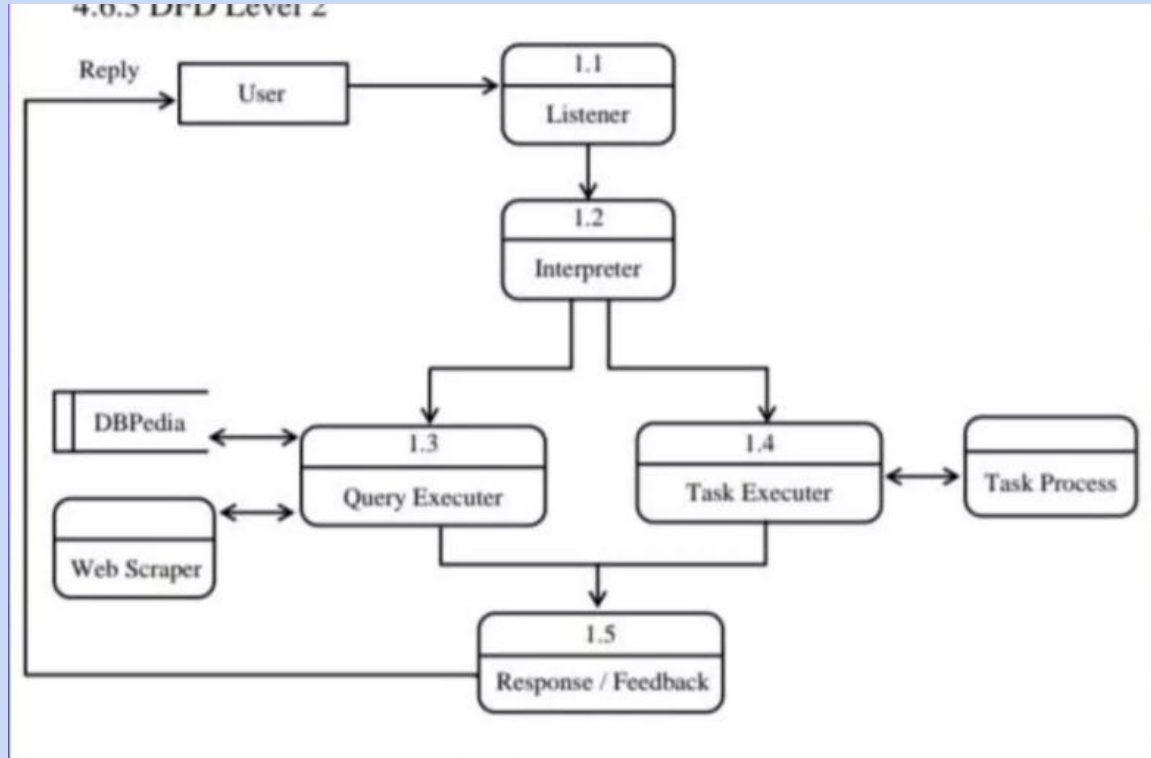
```
elif "exit" in query:  
    speak("thank you...bye bye")  
    break
```

```
elif 'google' in query:  
    import wikipedia as googlescrap  
    query=query.replace("alice","")  
    query=query.replace("google search","")  
    query= query.replace("google", "")  
    speak("This is what i found on the web!")  
    pywhatkit.search(query)
```

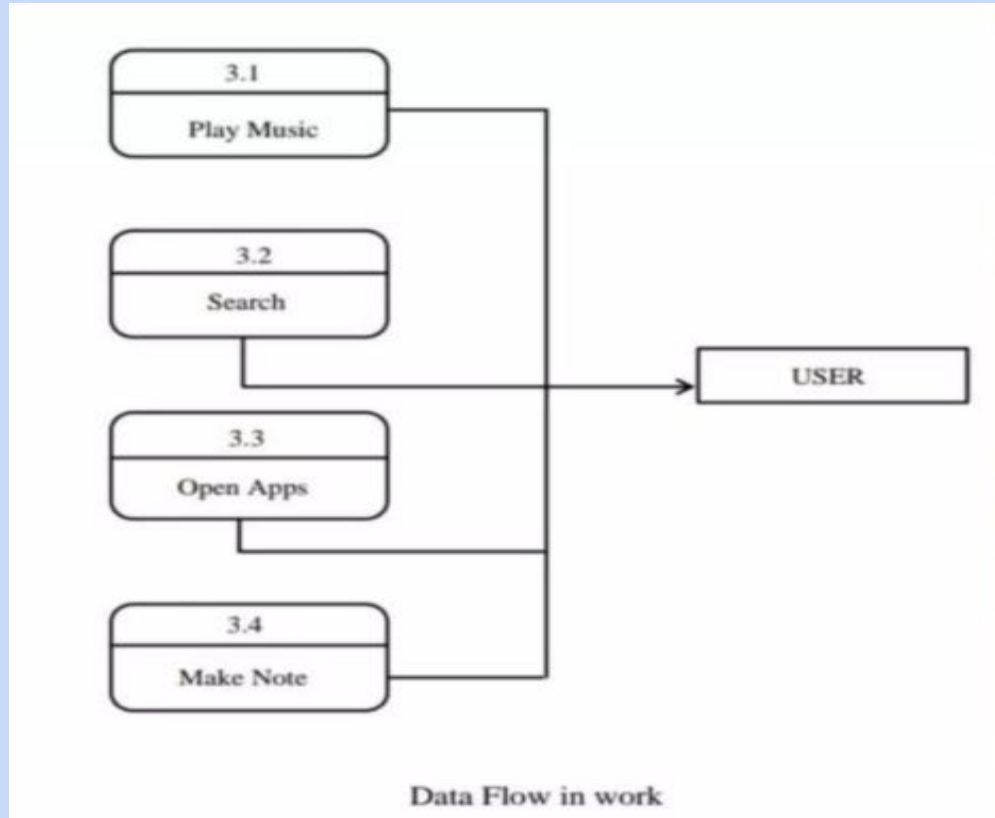
DATA FLOW DIAGRAM : LEVEL 2



DATA FLOW DIAGRAM : LEVEL 3



DATA FLOW IN WORK...



Week 7 Progress check:

EMAIL METHOD

```
elif 'email to Chinmaya' in query:  
    try:  
        speak("What should I say?")  
        content = takeCommand()  
        to = "chinmayauniyal@gmail.com.com"  
        sendEmail(to, content)  
        speak("Email has been sent!")  
    except Exception as e:  
        print(e)  
        speak("Sorry ! try again later")
```

Week 8 Progress check:

DATE TIME FUNC

```
elif "day" in query:
    day = datetime.datetime.today().weekday() + 1

    Day_dict = {1: 'Monday', 2: 'Tuesday', 3: 'Wednesday',
                4: 'Thursday', 5: 'Friday', 6: 'Saturday',
                7: 'Sunday'}

    if day in Day_dict.keys():
        day_of_the_week = Day_dict[day]
        print(day_of_the_week)
        speak("The day is " + day_of_the_week)
```

LIBRARIES USED :

```
..import pyttsx3 #pip install pyttsx3
..import speech_recognition as sr #pip
install ..speechRecognition
..import datetime
..import wikipedia #pip install wikipedia
..import webbrowser
```

```
..import os
```

```
..import smtplib
```

```
..import wolframalpha
```

```
..import googlesearch
```

```
..import pyjokes
```

```
..import time
```

```
..from bs4 import
```

```
BeautifulSoup
```

```
..import googlescrap
```


Advantages :

- EASILY CONFIGURED TO PERFORM MANY OF REGULAR TASKS BY SIMPLY GIVING VOICE COMMAND.
- VOICE BASED SEARCH THAT IS BORN FOR THOSE NOT COMFORTABLE WITH KEYPAD.
- ABLE TO WRITE TEXT THROUGH VOICE INPUT
- LESS CONSUMPTION OF TIME IN WRITING TEXT

Disadvantages :

- NOT GOOD AT NOISY PLACE
- LOW ACCURACY WHEN DISTANT FROM DEVICE..



Future plans and scope :



Future plans

- Password protection.
- Graphical user interface.
- Face Recognition.
- Try to add more functionality.



Scope

- Navigation
- Gaming
- Senior Citizens
- Physically disable people



Thank
You

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