

PONDICHERRY UNIVERSITY

Public university in Pondicherry



WEB ACCESSIBILITY – CSCE843 (Softcore)

TASK-7 *(Sign Language)*

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TASK – 7

Sign Language

- Sign languages provide meaning through hand and arm gestures, face actions, and position of the body.
- Many Deaf persons speak sign language as their first language. Some people struggle to read and comprehend written material, particularly at the speed of most captions.
- Some viewers may want captions and sign language at the same time.
- Not everyone who is Deaf is proficient in sign language, particularly if they first became hard of hearing or Deaf later in life. Although it cannot be guaranteed for accessibility, some people utilise "lip reading" to aid in understanding speech.
- Various locations and nations have different sign languages.
- There have been attempts to automatically translate text into sign language, however the avatars that simulate sign language interpretation fall short in this regard.

Sign Language Alternatives

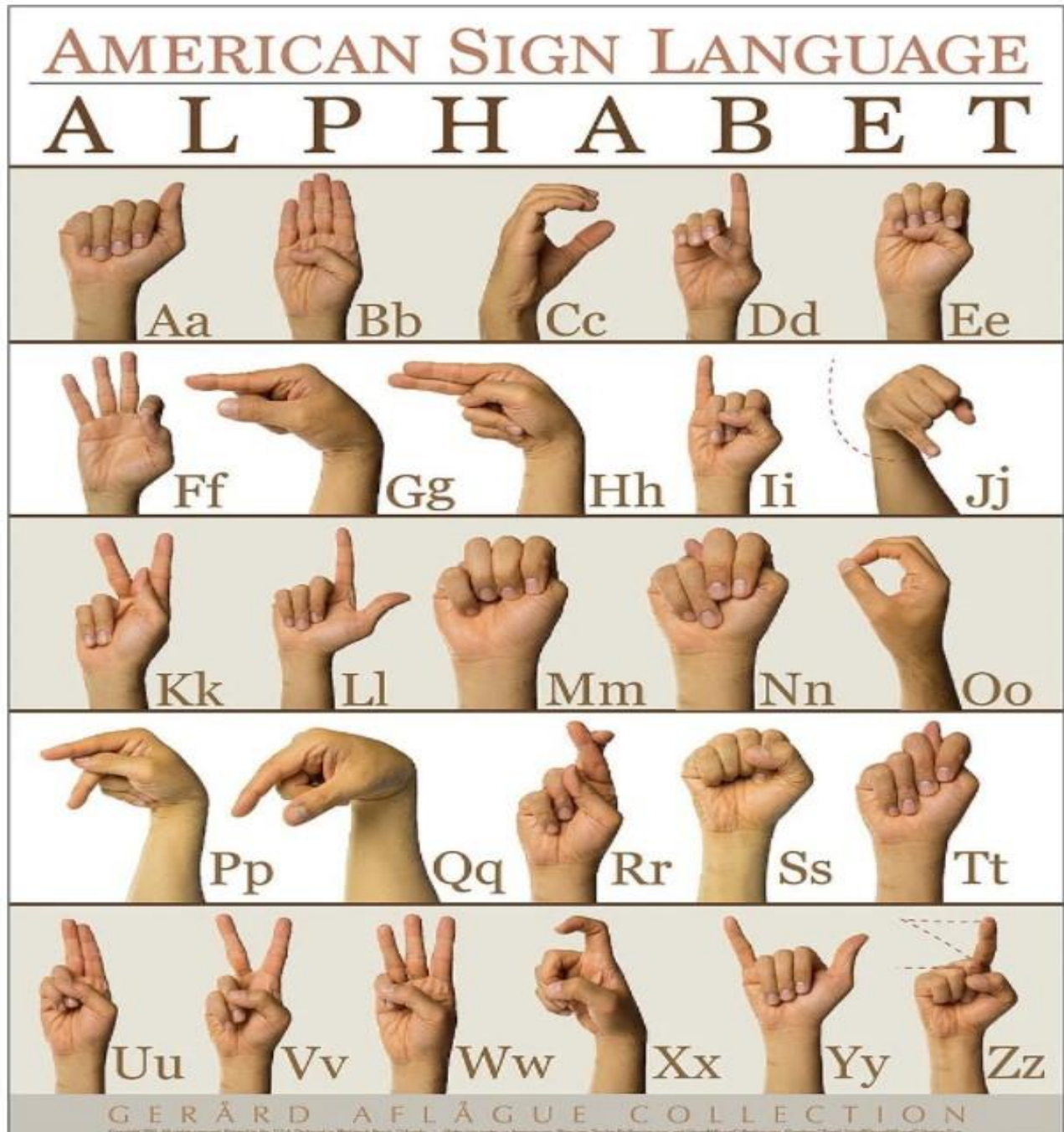
- **Use colours that are easy to distinguish - planning, recording**
 - The backgrounds and the signer's attire should typically be solid hues that contrast with their skin tone for optimal results. Their hands and face can then be seen more clearly.
- **Use good lighting - planning, recording**
 - Make sure there is adequate illumination so that the signer may be seen clearly.
- **Capture the full signing space – recording**
 - The signing area for the majority of sign languages is at least an elbow's breadth to each side and spans from far below the waist to above the head.
- **Ensure the signer is large enough - post-production**
 - All face expressions and movements must be visible to viewers.
- **Avoid obscuring important content - post-production**
 - Place the signer so that they won't block any crucial details from the video. The signer typically appears at the bottom right. Position the signer above any information in your video, such a news ticker, that is at the bottom
- **Make sign language video(s) easy to discover and use**
 - Make it simple to access both the sign language video and the video without sign language.
 - **For Example**, place a large, obvious toggle button and/or a labelled graphic for the sign language videos directly beneath the media player (s).

Skills and Tools

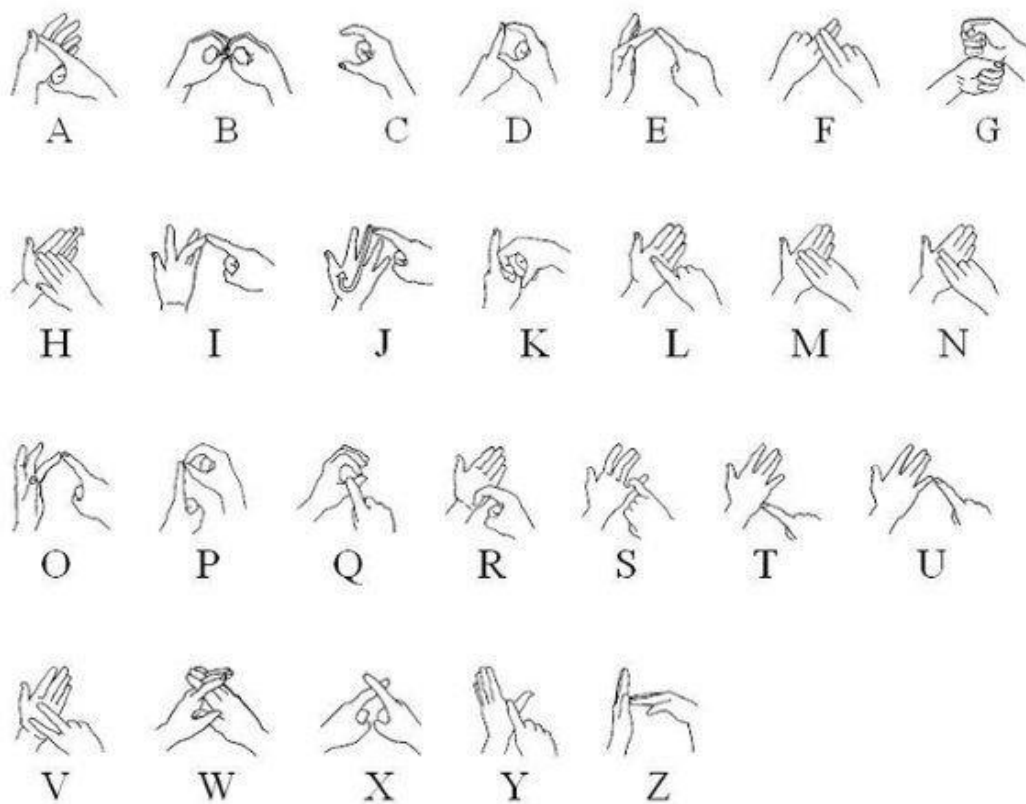
- do the sign language interpretation
- record it
- edit it with the audio or video file

Types of sign language in the world

1) American Sign Language



2) British, Australian and New Zealand Sign Language (BANZSL)



3) Chinese Sign Language (CSL)

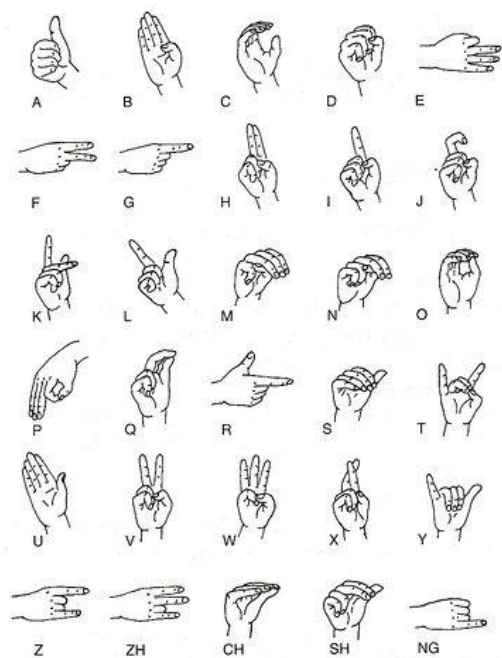
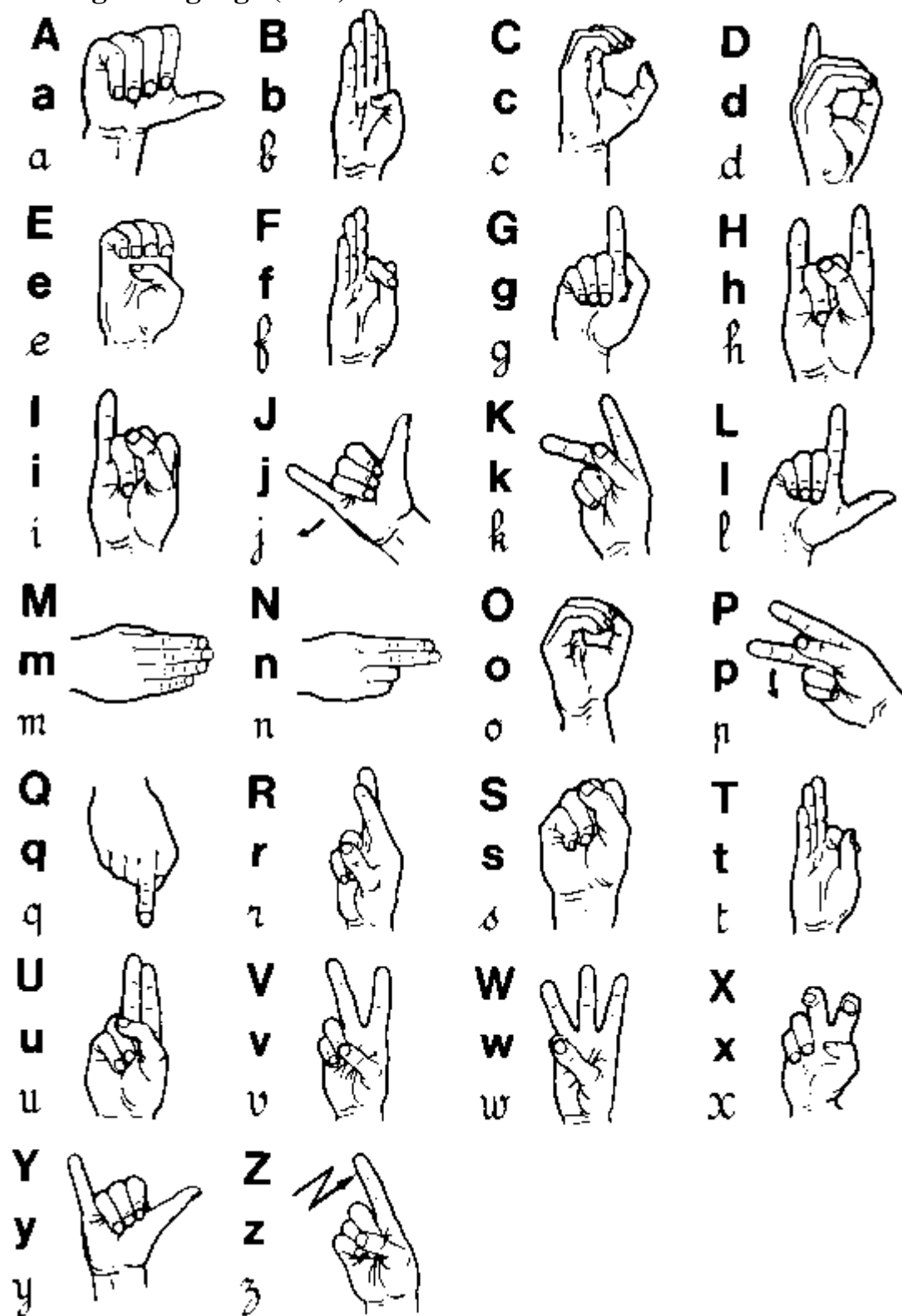


图 8 汉语手指字母

4) French Sign Language (LSF)



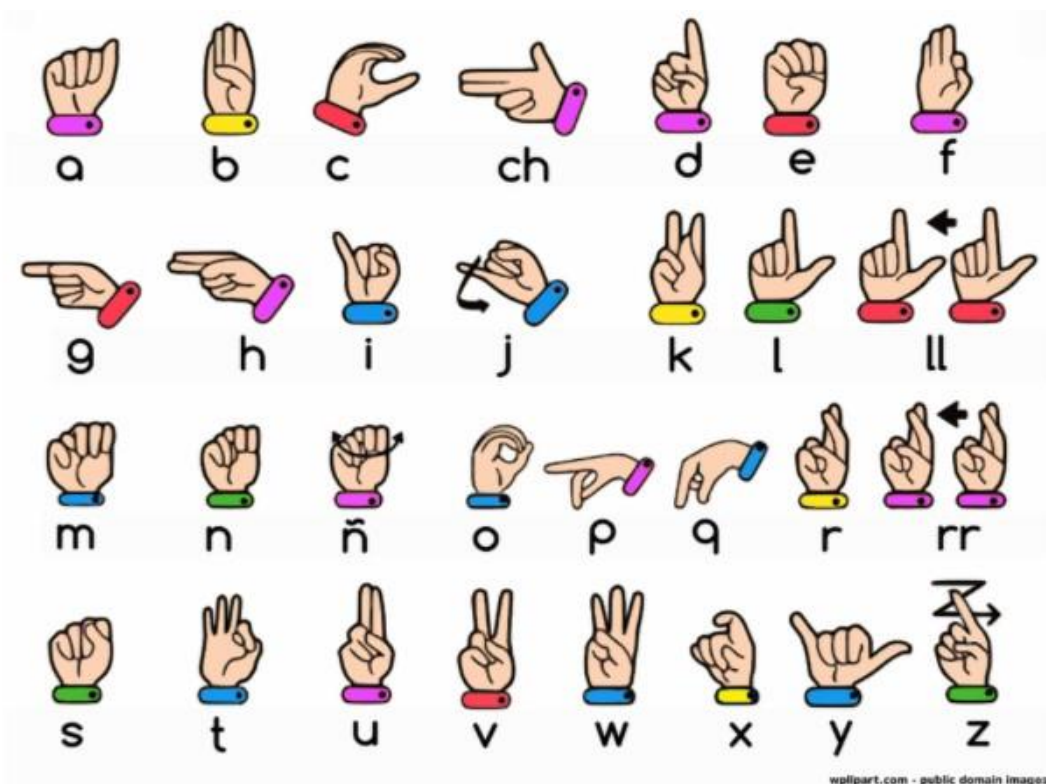
5) Japanese Sign Language (JSL)

| | | | | |
|---|---|---|----|---|
| あ | い | う | え | お |
| か | き | く | け | こ |
| さ | し | す | せ | そ |
| た | ち | つ | て | と |
| な | に | ぬ | ね | の |
| は | ひ | ふ | へ | ほ |
| ま | み | む | め | も |
| や | | ゆ | | よ |
| ら | り | る | れ | ろ |
| わ | を | ん | 長音 | |

6) Arabic Sign Language



7) Spanish Sign Language (LSE)



8) Mexican Sign Language (LSM)

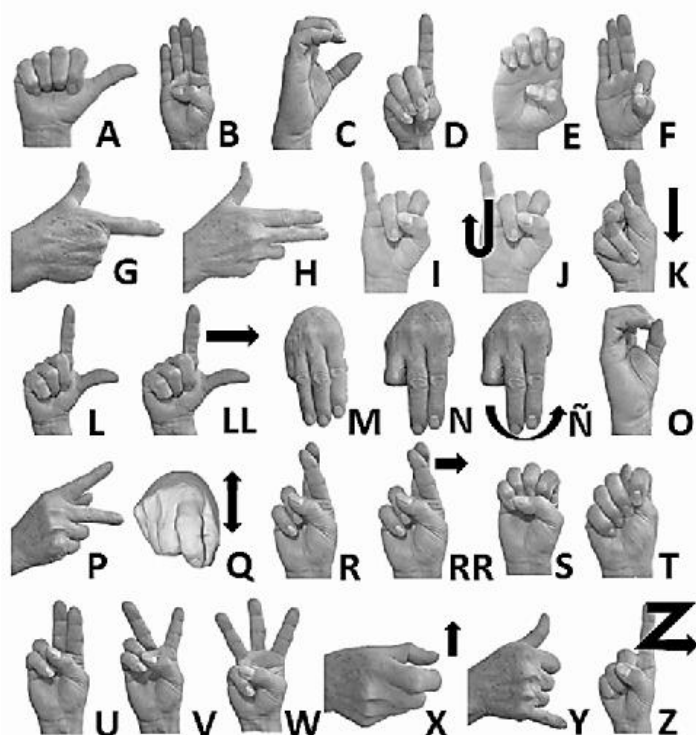






























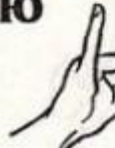

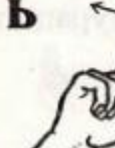


Fig. 2. MSL Alphabet

9) Ukrainian Sign Language (USL)

| | | | | |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| А  | Б  | В  | Г  | Г  |
| Д  | Е  | Є  | Ж  | З  |
| И  | І  | Ї  | Й  | К  |
| Л  | М  | Н  | О  | П  |
| Р  | С  | Т  | У  | Ф  |
| Х  | Ц  | Ч  | Ш  | Щ  |
| Ю  | Я  | Ь  | | |

Sign Language Mobile Application

Indian sign language [offline]

Overview:

- Indian Signs App is based on Indian Sign Language, It is a Sign language learning application.
- Those who are interested in learning Indian sign language can utilize this application.
- It is suitable for beginner and parents of Deaf children.
- It has Indian Sign language Alphabets, number and common conversation sentences in Indian sign language anybody can carry the same in his/her pocket, it works without internet connection.



App Description:

Version: 10.1

Updated on: Oct 30, 2019

Requires Android: 4.1 and up

Downloads: 50,000+ downloads

Content rating: Rated for 3+

Released on: Feb 14, 2016

Offered by: Talking Hands

Permissions:

- **Photos/Media/Files**
 - read the contents of your USB storage
 - modify or delete the contents of your USB storage
- **Storage**
 - read the contents of your USB storage
 - modify or delete the contents of your USB storage
- **Other**
 - receive data from Internet
 - view network connections
 - full network access
 - prevent device from sleeping

App Ratings: 4.5 Stars

Reviews: 755 Reviews from commands

Application Content Description:

- Indian Sign Language using in the applications are listed below

Home Page – Alphabets, Numbers, Greetings, Calendar, Days, Conversation and videos

- ❖ **Alphabets:** A to Z with images
- ❖ **Numbers:** 1 to 10 with images
- ❖ **Greetings: (video)**
 - ✓ Good Morning
 - ✓ Good Afternoon
 - ✓ Good Evening
 - ✓ Good Night
- ❖ **Calendar:** January to December with videos
- ❖ **Days:** Monday to Friday with videos
- ❖ **Conversation:**
 - ✓ Hello what is your name?
 - ✓ How are you?
 - ✓ I am fine.
 - ✓ What are you doing?
 - ✓ What is the problem?
 - ✓ What is your father do?
 - ✓ What is your job?
 - ✓ Where do you stay?
 - ✓ Shall I help you?
 - ✓ I am sorry.
 - ✓ I am tired.
 - ✓ Sit down.
 - ✓ Take care.
 - ✓ Are you busy.
 - ✓ Be careful.
 - ✓ Do not worry.
 - ✓ All the best.
- ❖ **Family:**
 - ✓ **Family**
 - Father
 - Mother
 - Brother
 - Sister
 - Husband
 - Wife
 - Son
 - Daughter

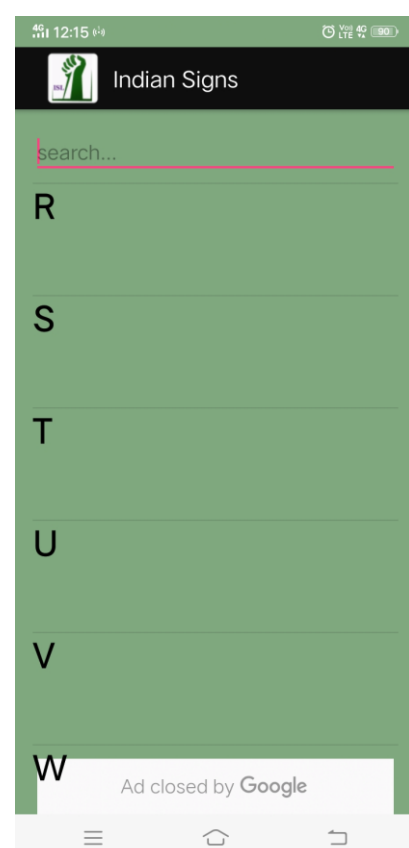
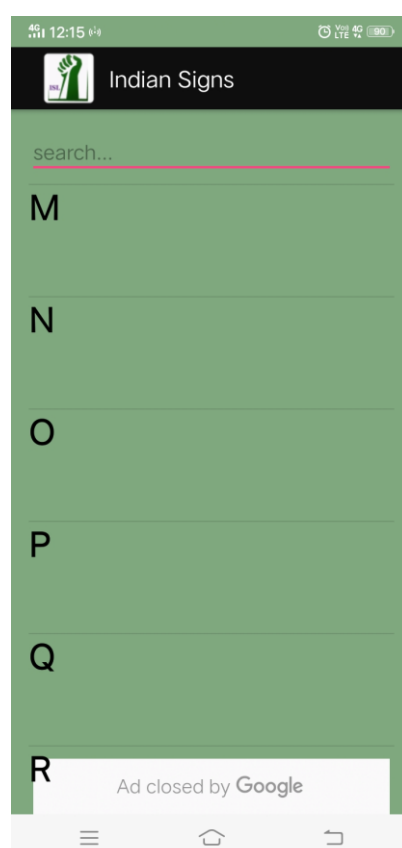
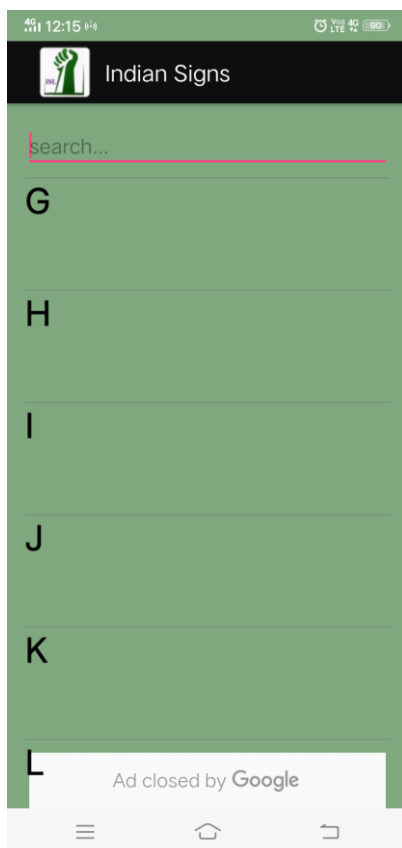
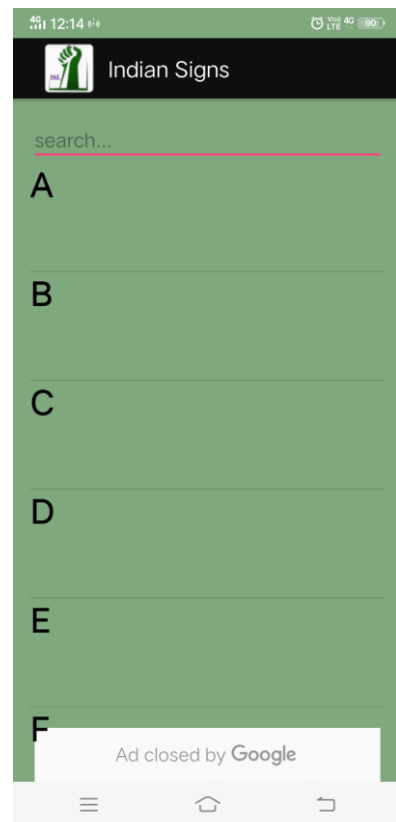
- Baby
- ✓ **Profession**
 - Engineer
 - Manager
 - Police
 - Servant
 - Teacher
- ✓ **Cities**
 - Mumbai
 - Delhi
 - Chennai
 - Kolkata
 - Bangalore
 - Pune
 - Hyderabad
 - Ahmedabad
- ✓ **Animals**
 - Cat
 - Dog
 - Elephant
 - Chicken
 - Peacock
- ✓ **Colours**
 - Black
 - Blue
 - Orange
 - Red
 - White
- ✓ **Fruits**
 - Apple
 - Banana
 - Mango
 - Orange
 - Watermelon
- ✓ **Transport**
 - Auto
 - Boat
 - Bus
 - Motorcycle
 - Train
- ✓ **Work related**

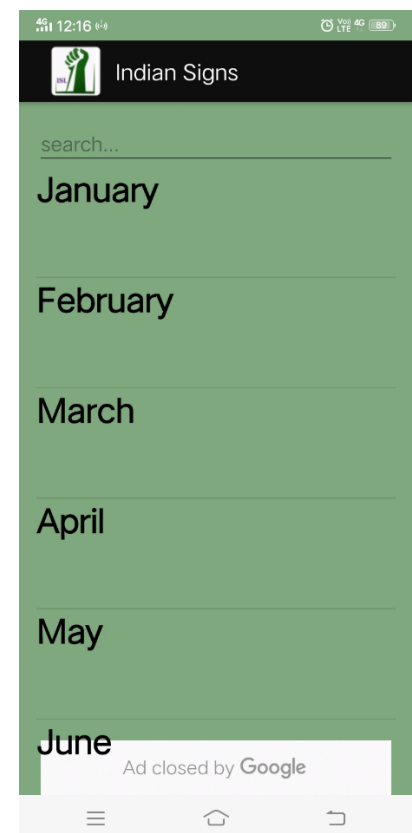
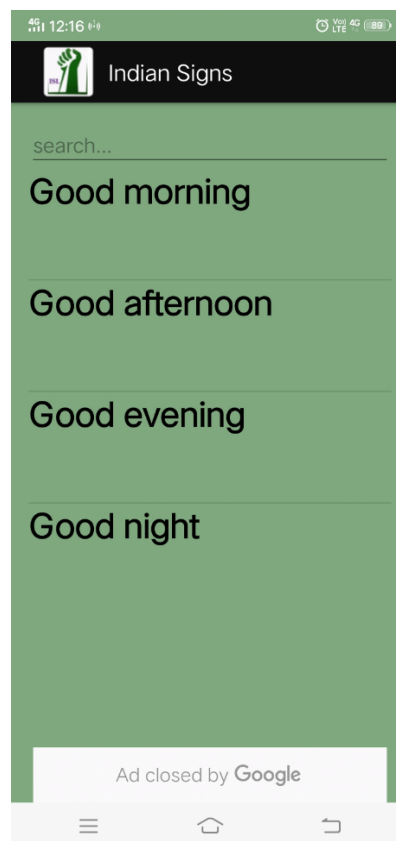
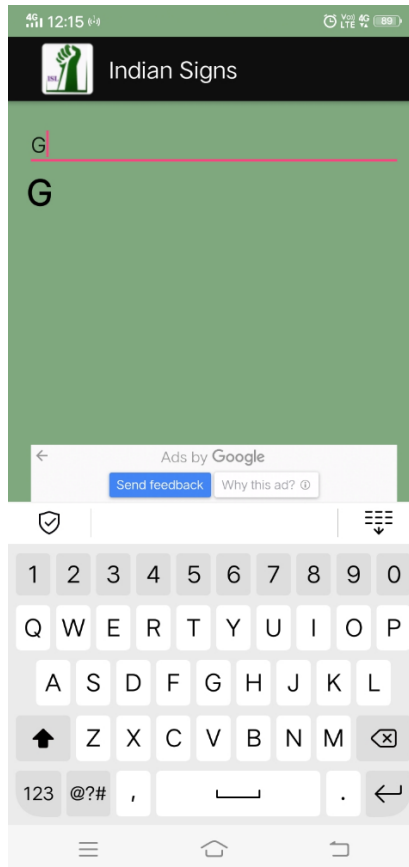
- Business
- Market
- Meeting
- Office
- Work

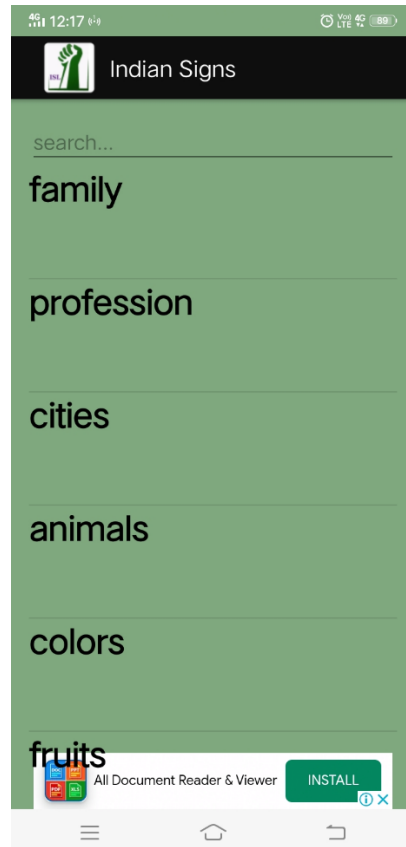
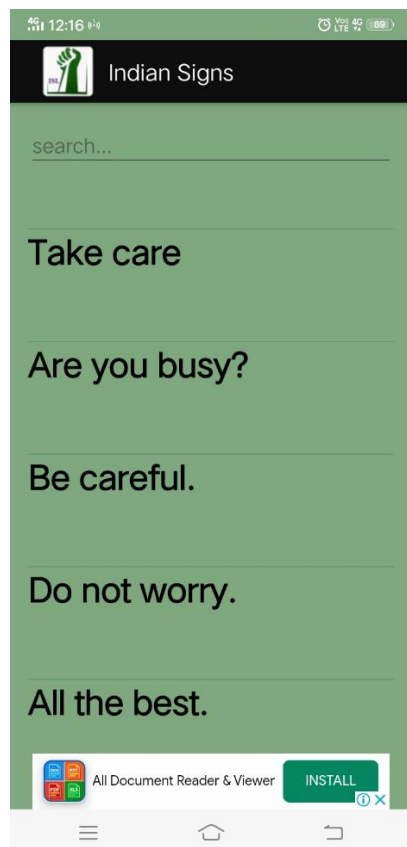
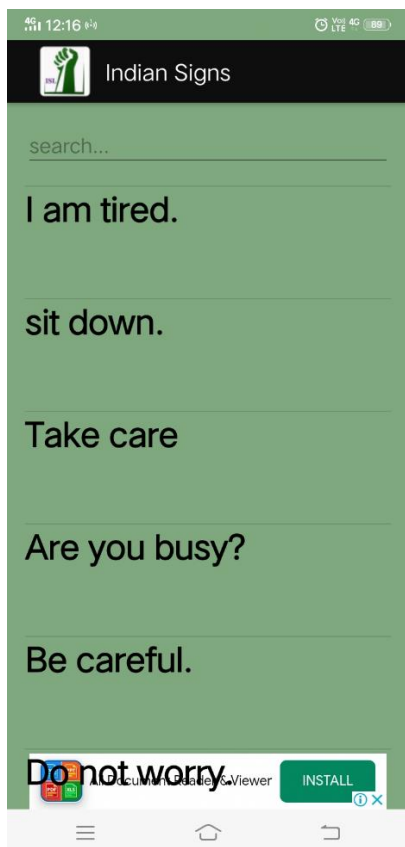
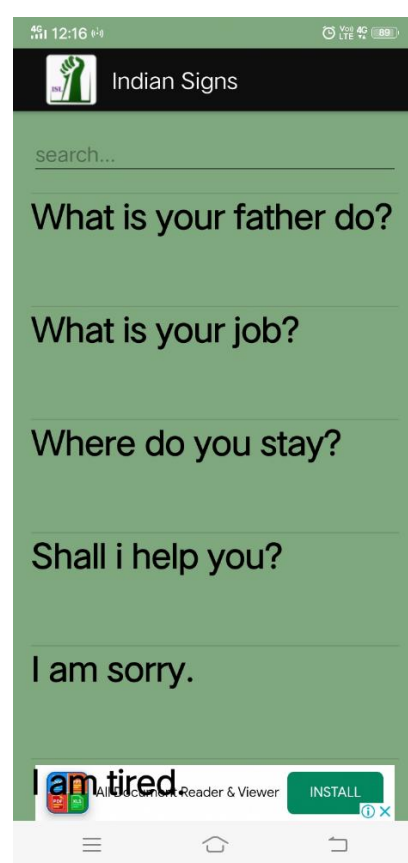
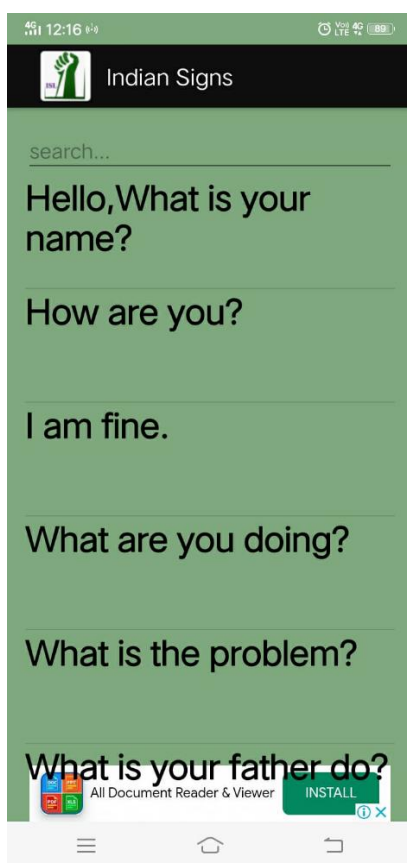
✓ **Others**

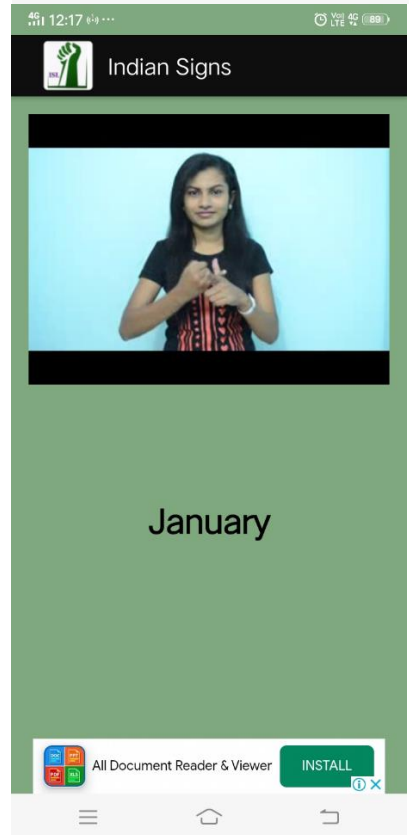
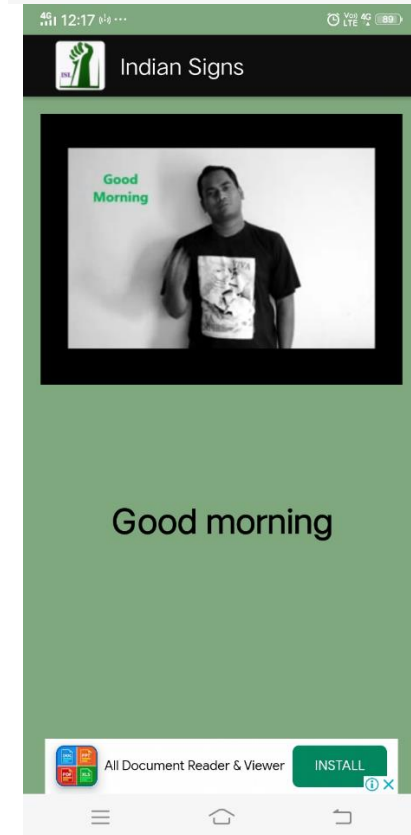
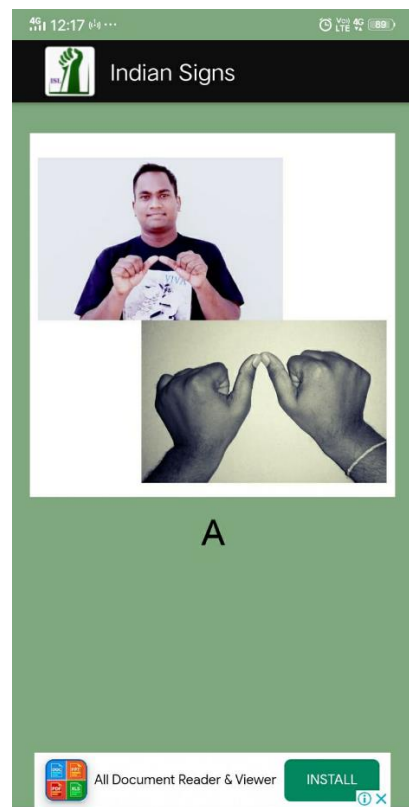
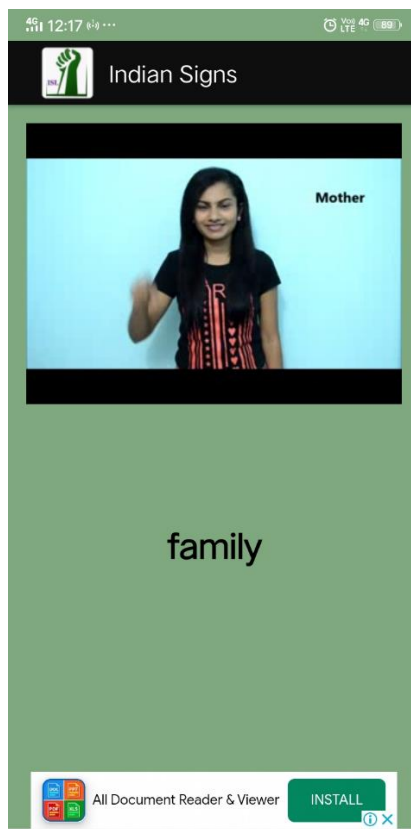
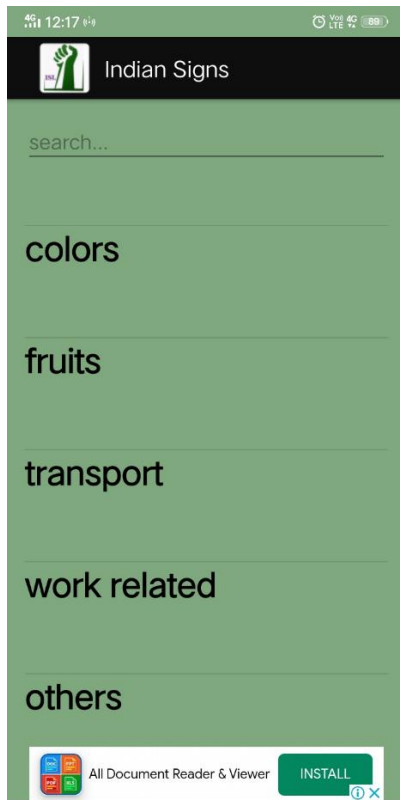
- Open
- Close
- Cancel
- Late
- Internet
- Practice
- Start
- Email
- WhatsApp
- Youtube

Screenshot Attached for References









Advantages

- This app is good for beginners
- This app is help to intact with dump and deaf person
- Easy to learn

Inferences:

- Difficulty in finding words
- Video speed can be control
- Add some test video
- Only limited signs are used
- Some of the signs can be a little hard to see
- After every alphabet, needs to go back and search is difficult, instead if there is continuity like previous or next slide (<>) it will be quite easy to learn rather than opening again n again each page
- Sometimes crashes on first page
- Download video option is not available
- Video is not that much clear