IT 351 Human Computer Interaction
Lab 5 – Personalized Voice Assistant

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A voice assistant is a digital assistant that uses voice recognition, speech synthesis, and natural language processing to provide a service through a particular application. In general they react to voice commands and give the user relevant information about his/her inquiry. Presently, voice assistants are already able to answer questions, process orders of products, perform actions like playing music or start a simple phone call with a friend.

Supported Voice Commands & Actions

The voice assistant aids in

1. **General greetings** - Responds with an appropriate greeting
2. **Drafting Email** - Sends an email to an intended recipient
3. **Sending SMS** - Sends an SMS to an intended recipient with the spoken message
4. **Setting alarms** - Create alarms with customizable alarm tune
5. **Making phone calls** - Speed dial an intended recipient
6. **Maintaining a to-do list** - Add/remove items to a to-do list
7. **Current location** - Tells user location based on device location
8. **Opening apps** - Opens apps such as camera, browser
9. **Current time** - Tells the time in HH:MM:SS format
10. **Today's date** - Tells today's date in MM:DD:YYYY format
11. **Other actions** result in "*I do not understand that command*" message from the assistant

These actions are initiated by the user (identified using Speech-to-text conversions) when they speak a particular command and give the action specific details like recepient's/contact's name/phone number and message.

For example,
"send SMS" followed by the contact number/name with the desired message will send an SMS to that person.
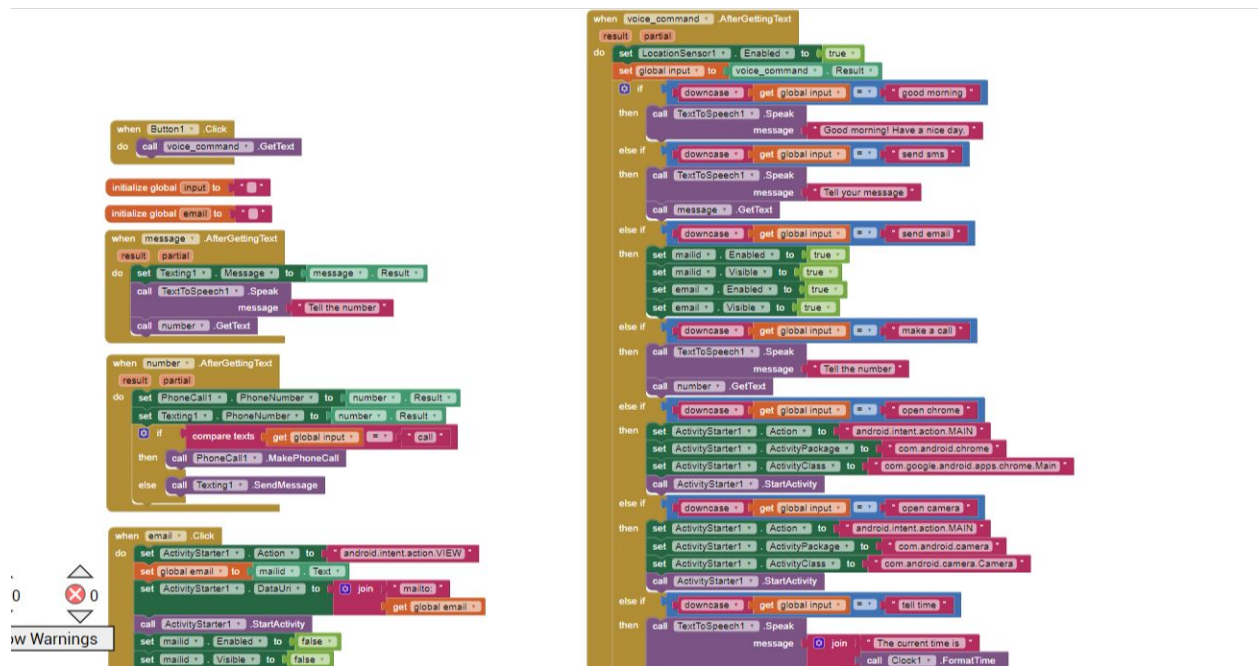"Tell time" gives the current time.

Design Screenshots

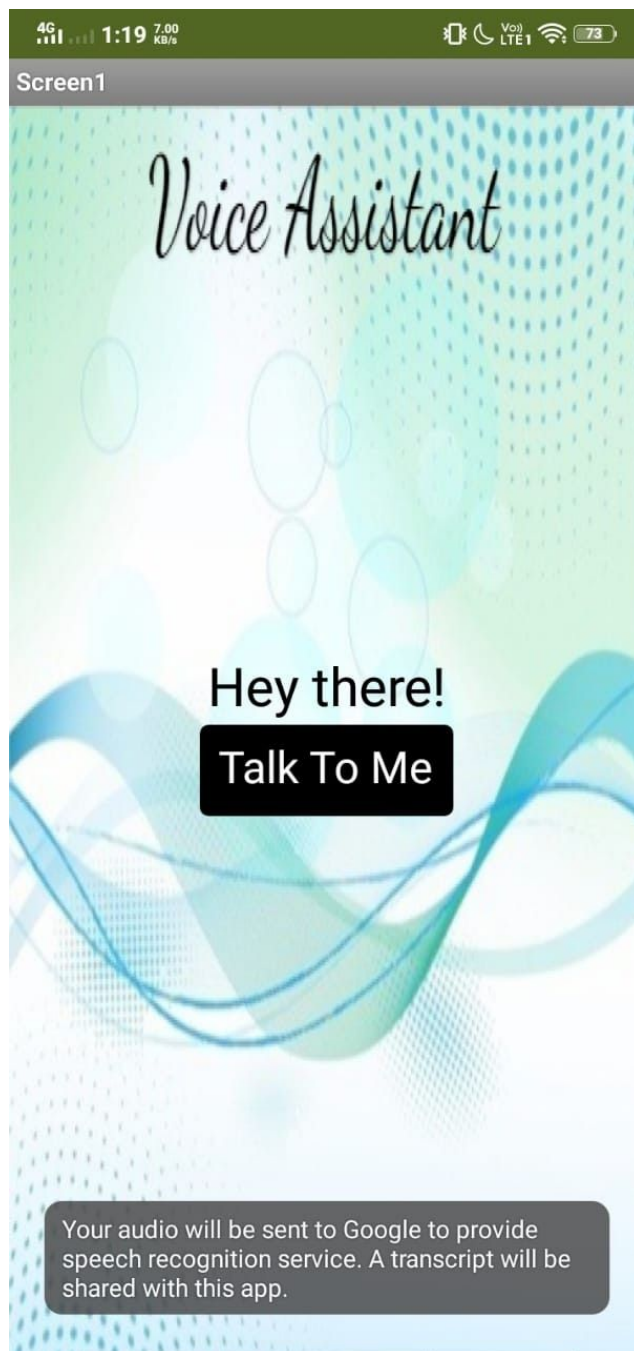Fig. Main screen blocks

Fig. Alarm screen blocks

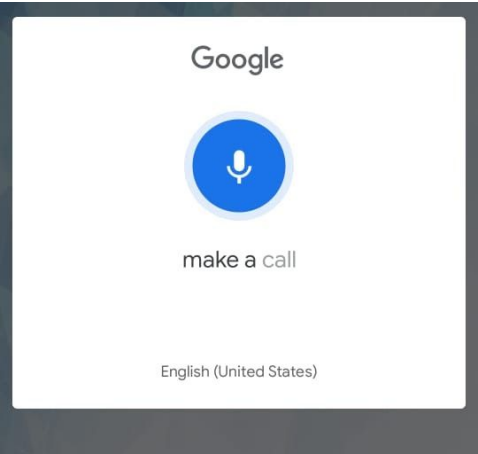**GUI screenshots**

Fig. Homescreen

Fig. Voice Assistant

9844074414

1 ꝏ	2 ABC	3 DEF
4 GHI	5 JKL	6 MNO
7 PQRS	8 TUV	9 WXYZ
✳	0 +	#

Finished authentication

Fig. Making call

1:03

maps

Akash Vihar Air Force Camp

Sanjay Nagar

Patanjali Chikitsala

3rd Cross Road

Marath Brid

MGA Hospital

Varthur Road

Mallya Hospital

1st Main Road

2nd Main Road

3rd Main Road

Marathahalli

4th Cross Road

5th Cross Road

aya Health Care & iagnostic Center

6th Main Road

7th Main Road

8th Main Road

6th Cross Road

Tulsi Theatre Road

7th Cross Road

9th Main Road

10th Cross Road

1st Main Road
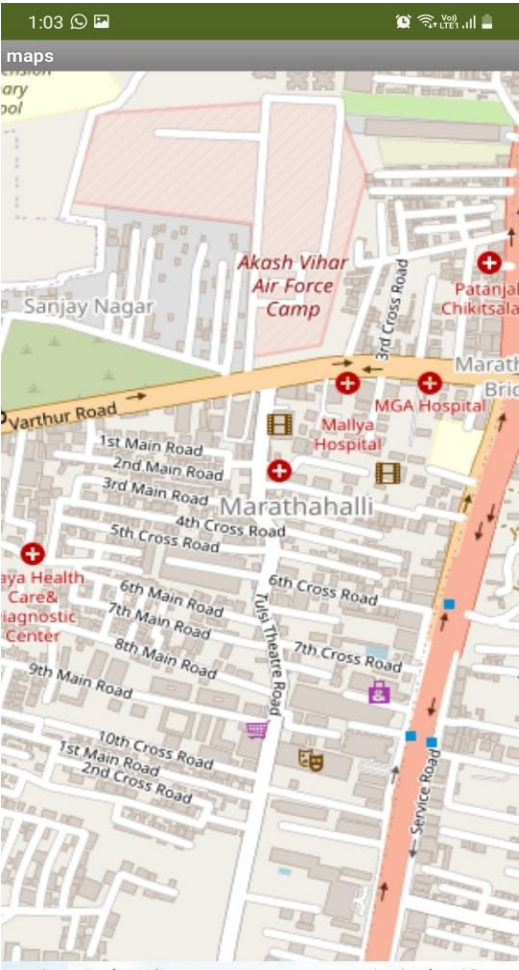
2nd Cross Road

Service Road
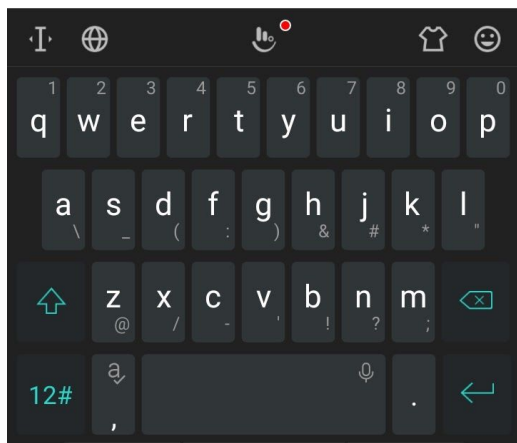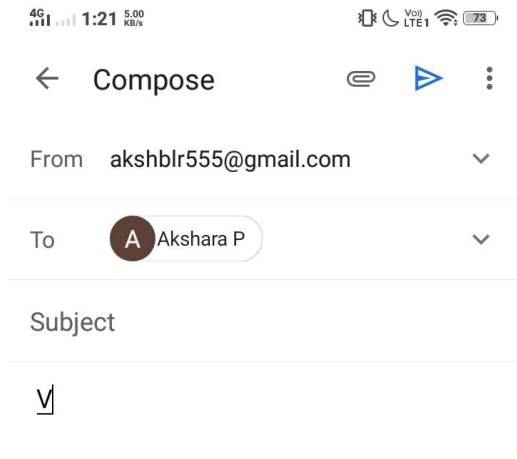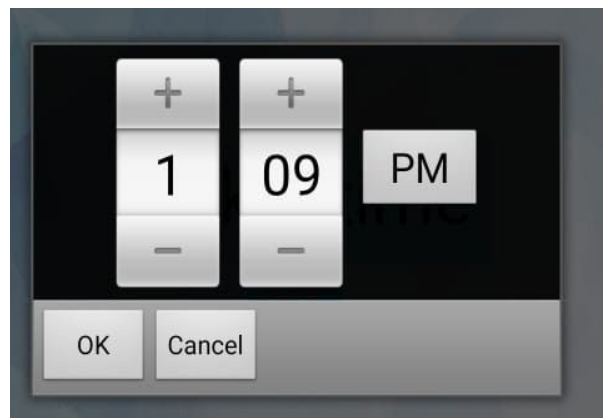
Fig. Current Location

Fig. Drafting Email

Fig. Setting alarm

Conclusion

This a simple graphical user interface that provides the necessary functionalities which can be easily used by the user, with speech to text support.