Digital India

Aatmanirbhar Bharat

APP INNOVATION CHALLENGE

DEVELOPMENT PHASE DOCUMENT

App name

ANUVADAK

App Sub-Category

Mobile application for real-time speech-to-speech translation.

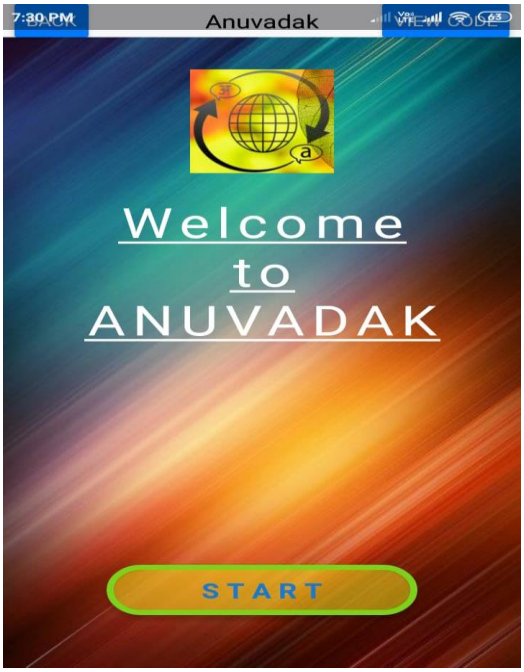
Current Status

Application is ready to use, to be published in Android or IOS

ANUVADAK Services

ANUVADAK, a Sanskrit word that refers to a translation device. It is an application that provides translation services to users.

The title screen consists of an application Logo. The logo consists of the image of a globe which is shown below. The globe consists of 5 vertical lines that represent 5 oceans of the earth, 7 horizontal lines that represent 7 different continents of the earth. This logo symbolically represents that we can translate from any recognized language to any recognized language that is used throughout the world.



Features of Anuvadak

This application includes Text Translation, Speech to Text, QR-Scanner, Web- Viewer, and Image Recognizer.

- **Text Translation**

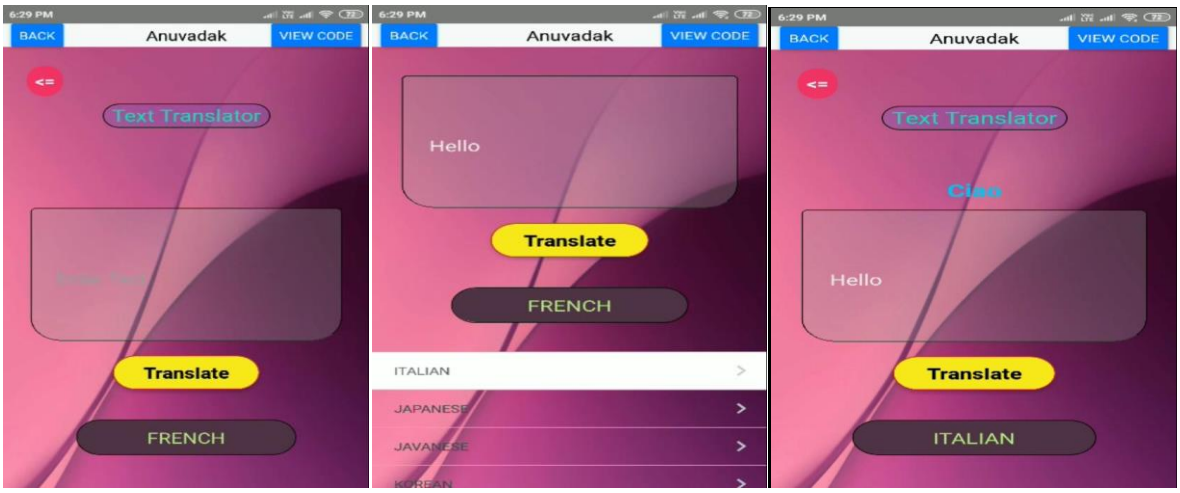
This screen can translate a text from a Text Input and display the results as a label on the app's screen and also speaks the result. Yandex API Key provides the translation into about 94 various languages.

Source Language is input to the translator, which is the name of the language to translate from. Currently available in 94 languages.

Target Language is the name of the language to translate to. The user can choose a language from available 94 languages.

In the application when we navigate to the text translator screen. We can observe the text space, language button, and the translate button. The usage of this feature is described below in steps.

i. We should type our desired text in the text box using our mobile keypad
ii. Select the target language should be selected using the button present at the bottom of the screen
iii. Click on the translate button
iv. we can observe the output on the screen above the text box and we can hear the audio of the output simultaneously.



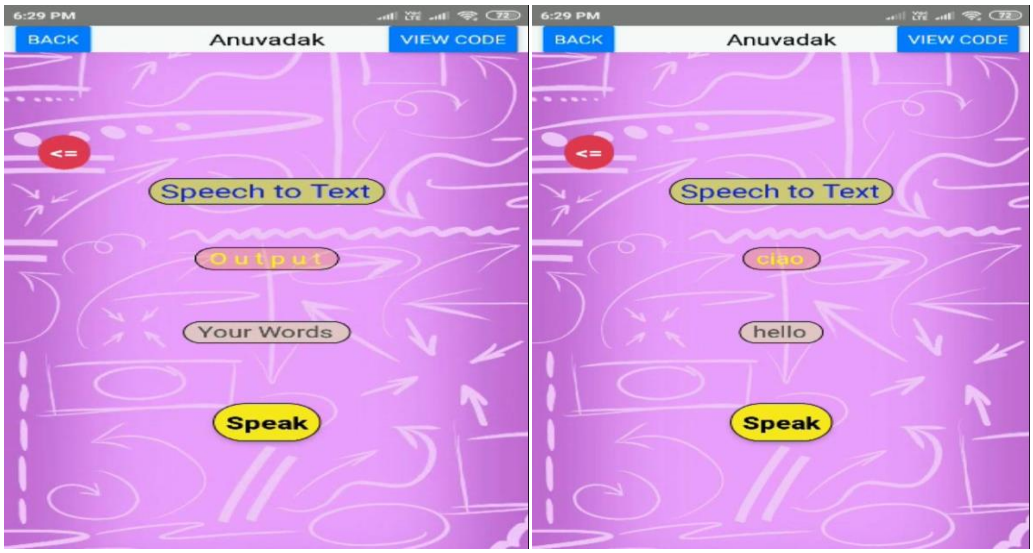
- **Speech to Text**

The Speech Recognizer component can translate a full phrase as a person is speaking. The Speech Recognizer stops listening after it stops detecting any sound.

Then it displays the text of spoken words. It also converts the spoken text to target language automatically selected from text to speech and speaks the result.

When we navigate to the speech to this feature in the application, we come across the different blocks like output, your words, and the speak button. The usage of this feature is explained below briefly in steps.

i. Primarily, we should select the target language in the text translation screen
ii. Long press the speak button at the bottom of the screen, input some audio in your desired language
iii. We can observe the input audio as words in, your words block
iv. We will get the output in the output block in our selected language

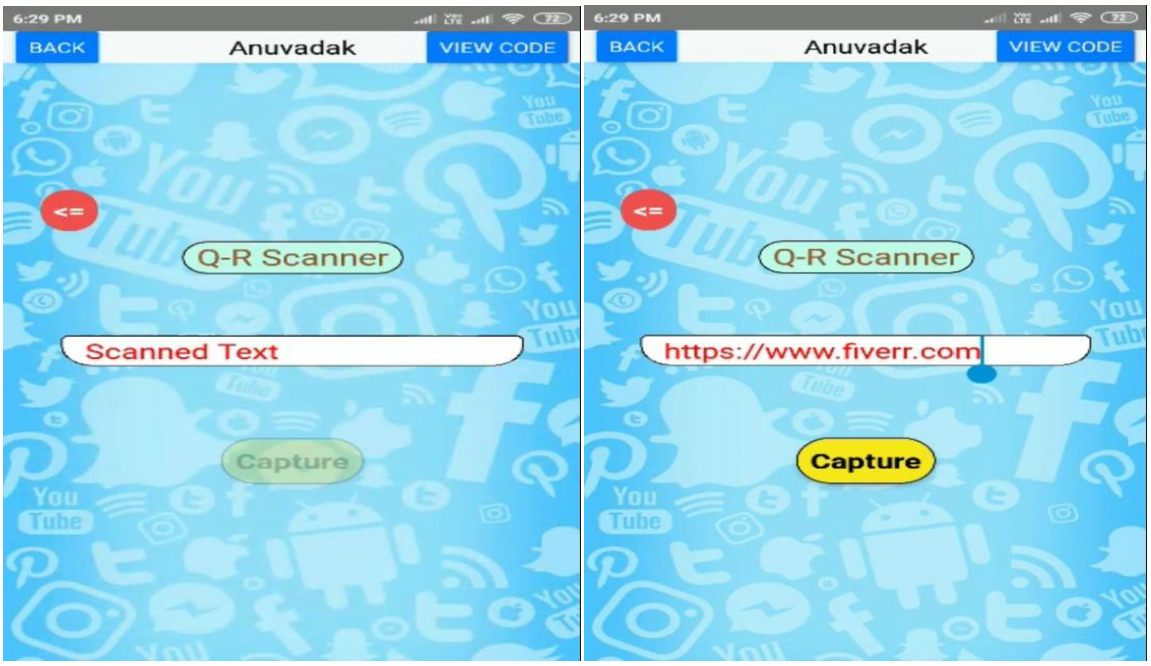


- **QR – Scanner**

This feature enables the app to read barcodes and QR codes. Barcodes and QR codes can be useful features in many types of apps from social apps like WeChat and Venmo to connect friends or location-based games like scavenger hunts. The Barcode Scanner component uses the camera to read any barcode or QR code.

When we navigate to the speech to this feature in the application, we come across the text box and capture button. The usage of this feature is explained below briefly in steps.

i. Click on the capture button on the screen, this application uses the camera of our mobile to capture the Q-R code.
ii. Q-R code captured is recognized and the source of this code is displayed in the text box.



- **Web – Viewer**

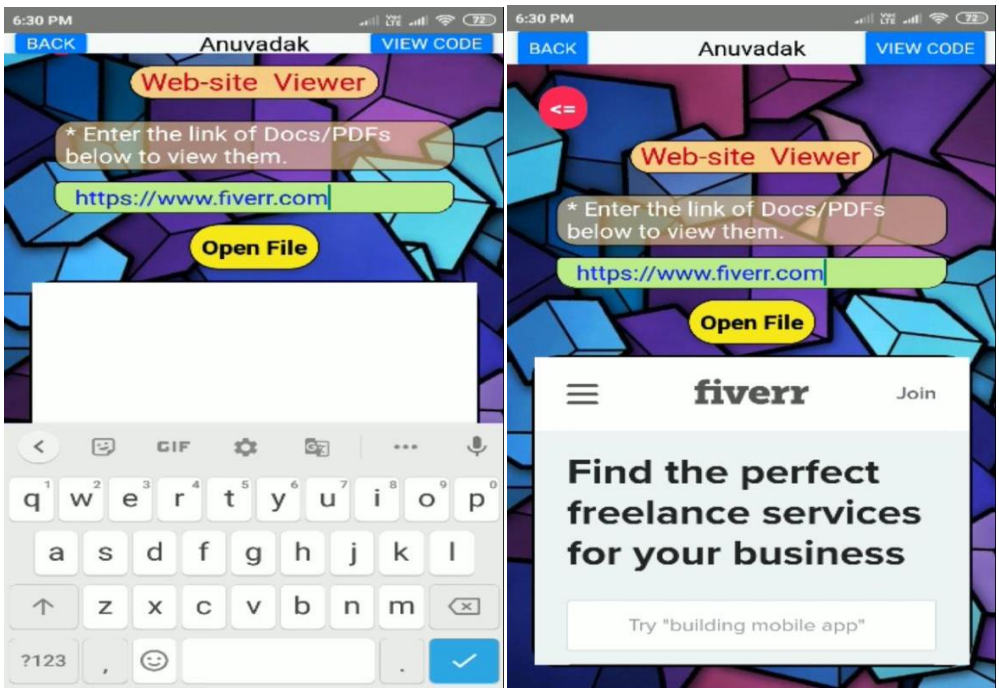
With the Web Viewer screen, we can open up any website within the app to display. To open up a website in the app, the user needs to provide the Web Viewer with a URL.

A URL is a kind of like a street address - it tells the web viewer the location of the website on the internet.

When we navigate to the speech to this feature in the application, we come across the text box and the open file button. The usage of this feature is explained below briefly in steps.

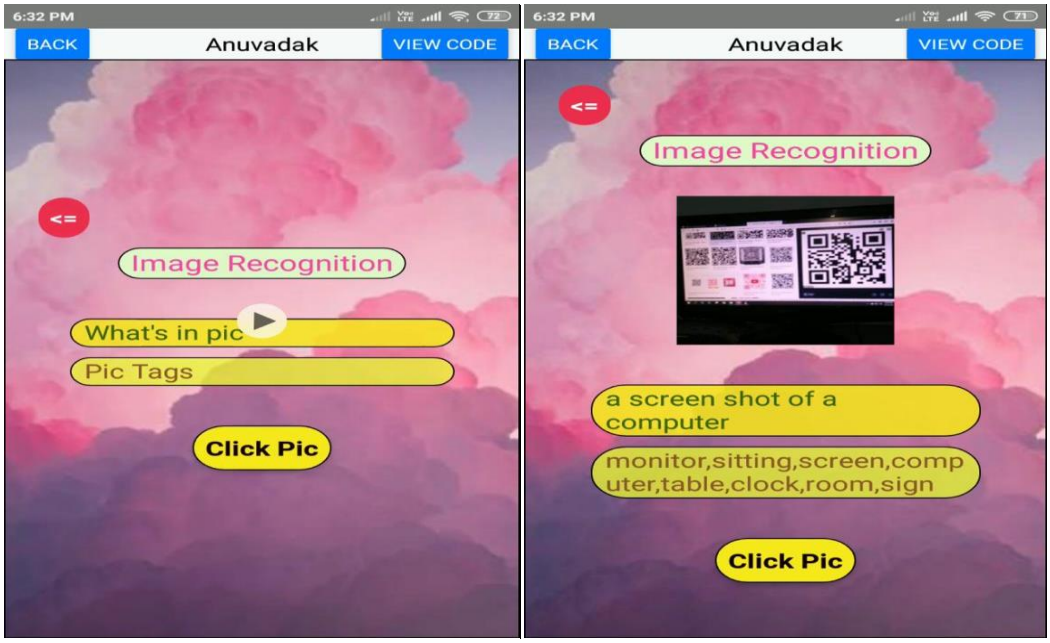
i. The URL of the website is copied in the text box.
ii. Click on the “open file” button. To open the particlaur file or website.

Here we can use the URL of the Q-R code that obtained in previous screen to open the source location.



- **Image Recognizer**

The image recognizer lets the user take a picture and returns a one-line description for what's happening in the picture you took.



It sends a photo to Microsoft's Image Recognizer and returns a one-line description and description tags. It will also return an error if there is a problem returning a description for a given image.

When we navigate to the speech to this feature in the application, we come across two text boxes and "click pic button". The usage of this feature is explained below briefly in steps

i. Press the click pic button, it uses the camera of your mobile phone.
ii. The image is viewed on the screen
iii. The first text box describes the image. The second text box shows the tags or components present in the image.

Conclusion

Thus, we have made an application which provides people to get a translation device in their hands and accessible service to help people who are new to a place or even want to learn a language both in text and speech-wise.