INTELLIGENT HANDS FREE SPEECH BASED SMS SYSTEM

K.VENKATESWARLU, Assistant Professor, Dept.of Master of Computer Applications, Narayana Engineering College(Autonomous), Gudur.SPSR Nellore, AP, India
V.PAVAN KUMAR, Research Scholar, Dept.of Master of Computer Applications, Narayana Engineering College(Autonomous), Gudur.SPSR Nellore, AP, India

Abstract:

Our motive is to develop an android application that will help us to reduce the time consumption of typing text manually by using keypad. We can achieve this implementation by using the voice as an input instead of typed text. Over the years speech recognition has taken the market. The speech input can be used in varying domains such as automatic reader and for inputting data to the system. Speech recognition can minimize the use of text and other types of input, at the same time minimizing the calculation needed for the process. Decade back speech recognition was difficult to use in any system, but with elevation in technology leading to new algorithms, techniques and advanced tools. Now it is possible to generate the desired speech recognition output. One such method is the hidden markov models which is used in this paper. Voice or signaled input is inserted through any speech device such as microphone, then speech can be processed and convert it to text hence able to send SMS, also Phone number can be you may select it from contact list. Voice has opened up data input for a variety of user's such as illiterate, handicapped, as if the person cannot write then the speech input is a boon and other's too which can lead to better usage of the application.

Keywords:

- User's Voice or Speech recognition , Markov Modules.
- Speaker Dependent ,Speaker adpative

Introduction

A number of voice recognition systems are available on the market. The most powerful can recognize thousands of words. However, they generally require an extended training session during which the computer system becomes accustomed to a particular voice and accent. Such systems are said to be speaker dependent. A speaker dependent system is developed to operate for a single speaker. These systems are usually easier to develop, cheaper to buy and more accurate, then but not as flexible as speaker adaptive or speaker independent systems. Speaker –dependent software works by learning the unique characteristics of a single person's voice, in a way similar to voice recognition.

Statement of the Problem:

- Over the years speech recognition has taken the market. Speech recognition can minimize the use of text and other types of input, at the same time minimizing the calculation needed for the process.
- Decade back speech recognition was difficult to use in any system, but with elevation in technology leading to new algorithms, techniques and advanced tools.

Objectives of the Study:

- To recognize the SPEECH from the user.
- To convert the SPEECH input to TEXT format output.
- Getting the numbers of the RECIVERS from the user mobile contacts.
- Sending the text formatted result to the RECIEPIENT as per the schedule.

Review of Literature:

Kuldip K. Paliwal and et al in the year 2004 had discussed that without being affected by their popularity for front end parameter in speech recognition. Esfandier Zavarehei and et al in the year 2005, studied that a time-frequency estimator for enhancement of noisy speech signal in DFT domain is introduced. Puneet Kaur, Bhupender Singh and Neha Kapur in the year 2012 had discussed how to use Hidden Markov Model in the process of recognition of speech. To develop an ASR(Automatic Speech Recognition) system the essential three steps necessary are pre-processing, feature Extraction and recognition and finally hidden markov model is used to get the desired result.

Research Methodology:

. Analysis is a detailed study of the various operations performed by a system and their relationships within and outside of the system. One aspect of analysis is defining the boundaries of the system and determining whether or not a candidate system should consider other related systems. During analysis, data are collected on the available files, decision points, and transactions handled by the present system.

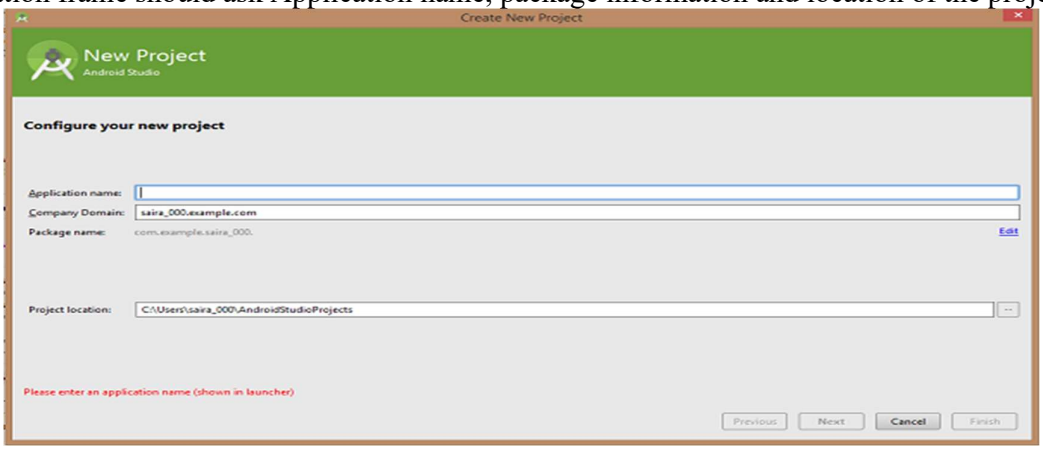
Logical system models and tools that are used in analysis. Training, experience, and common sense are required for collection of the information needed to do the analysis.

Results and Discussion:

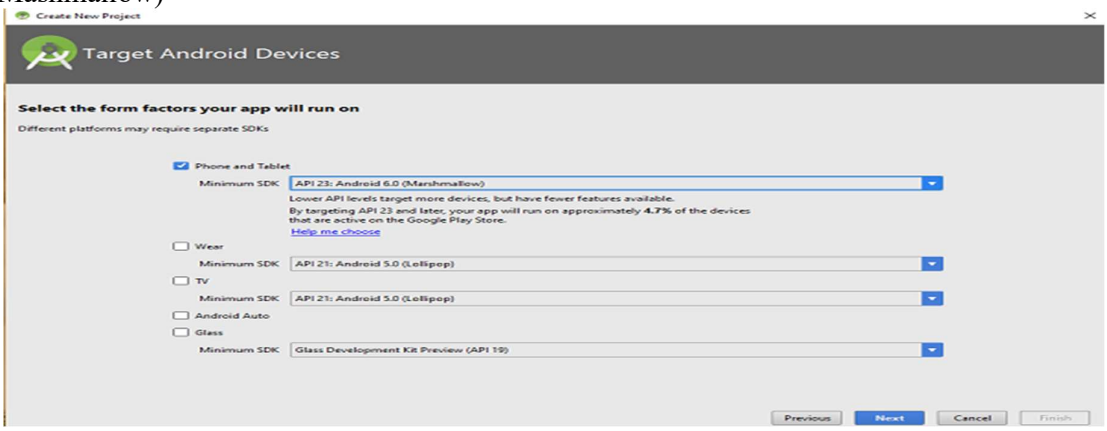
Creating Android Application

The first step is to create a simple Android Application using Android studio. When you click on Android studio icon, it will show screen as shown below

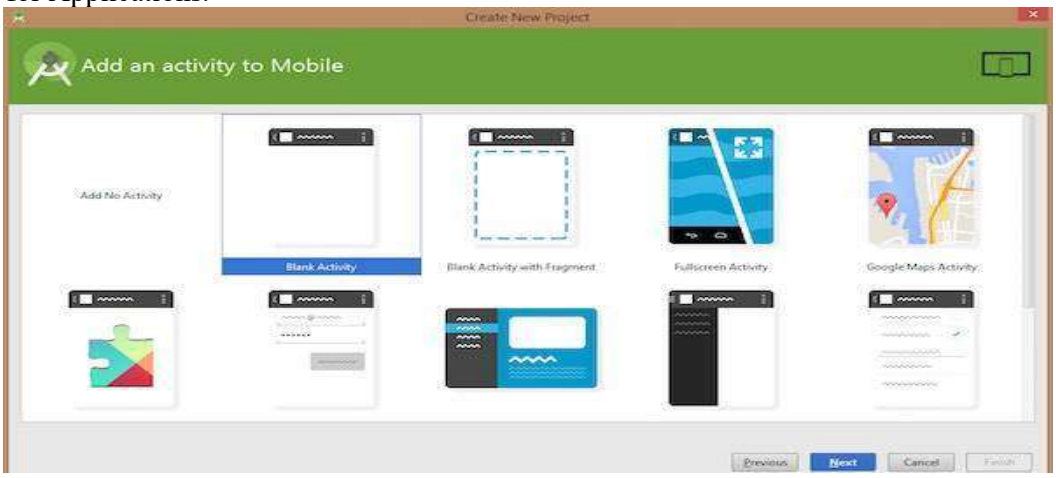
You can start your application development by calling start a new android studio project. in a new installation frame should ask Application name, package information and location of the project.−



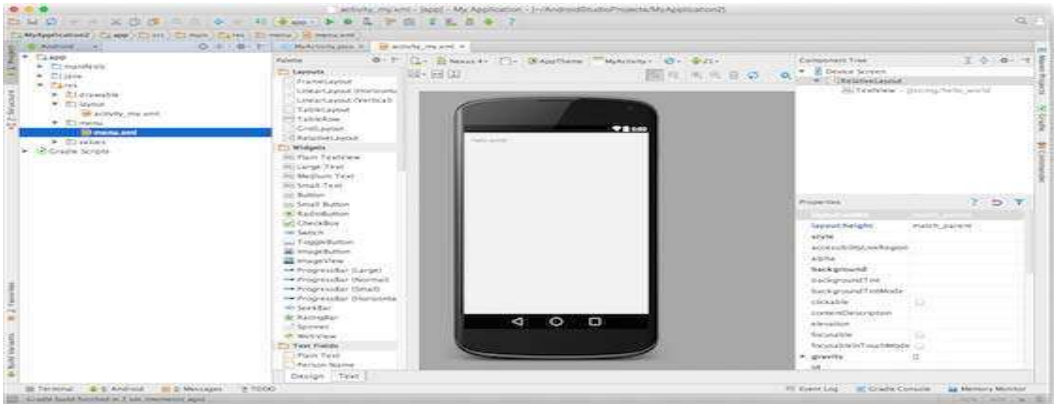
After entered application name, it going to be called select the form factors your application runs on, here need to specify Minimum SDK, in our tutorial, I have declared as API23: Android 6.0(Mashmallow) −



The next level of installation should contain selecting the activity to mobile, it specifies the default layout for Applications.



At the final stage it going to be open development tool to write the application code.

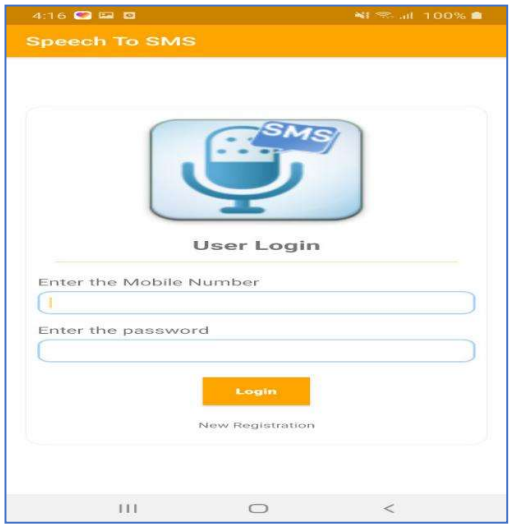


Running the Application:

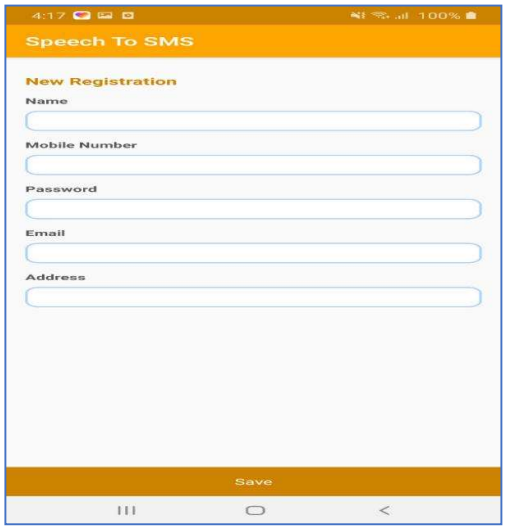
Let's try to run our **Hello World!** application we just created. I assume you had created your **AVD** while doing environment set-up. To run the app from Android studio, open one of your project's activity files and click Run icon from the tool bar. Android studio installs the app on your AVD and starts it and if everything is fine with your set-up and application.

Our developed application will have the following steps one after another as per the application requirements.

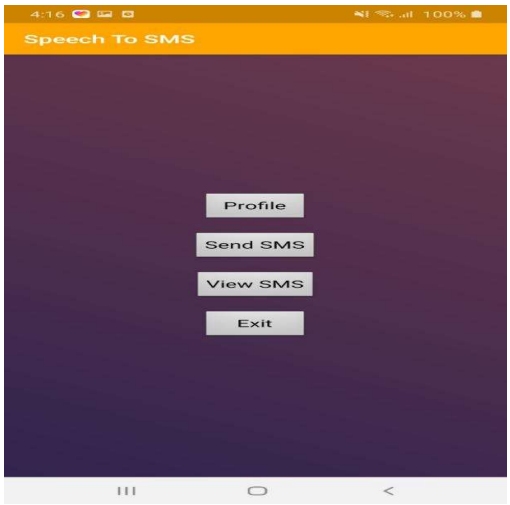
1.LOGIN PAGE



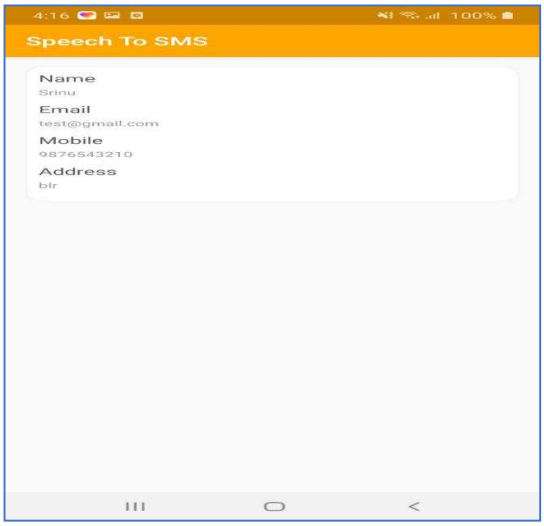
2. NEW USER REGISTRATION PAGE



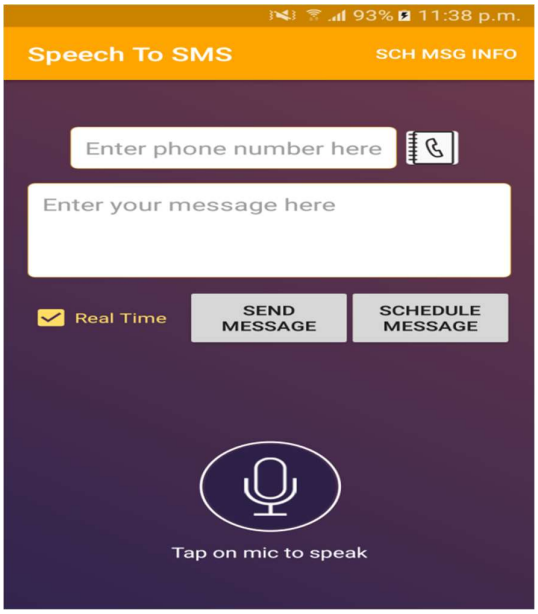
3. USER MAIN PAGE



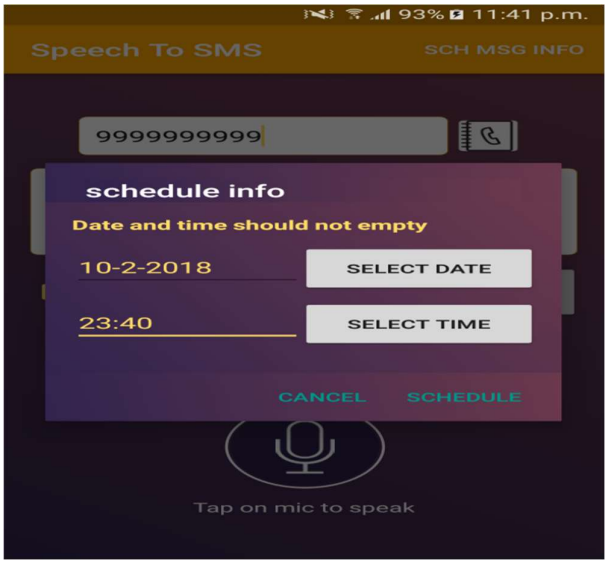
4. USER PROFILE PAGE



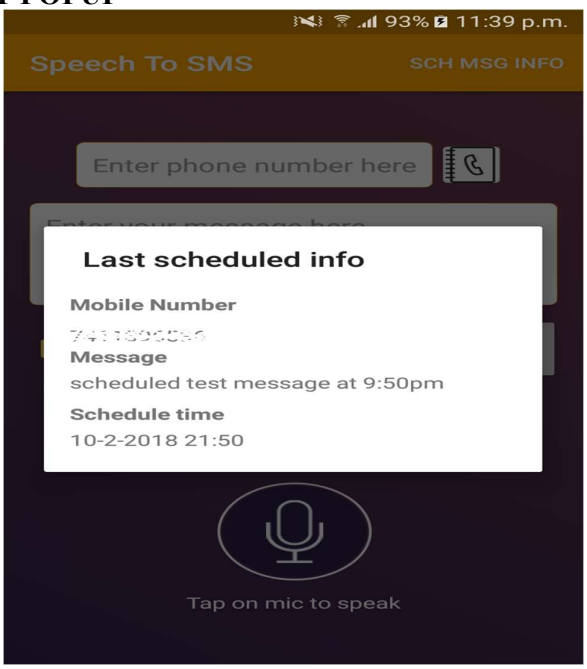
5. SEND SMS PAGE



6. SETTING TIME AND DATE SCHEDULE



7.ACKNOLEDGEMENT POPUP



Conclusion

This application, "**Displaying Smart Phone Data**" is based on sharing information such as battery status; miscall info and message from android device to web application, i.e., whenever the battery drains or any miscalls or when a message comes, all this info will be updated on the server system and the user can view that info using the web application from anywhere.

References

[1] Jingdong Chen, Member, Yiteng (Arden) Huang, Qi Li, Kuldip K. Paliwal, "Recognition of Noisy Speech using Dynamic Spectral Subband Centroids" IEEE SSIGNAL PROCESSING LETTERS, Vol. 11, Number 2, February 2004.

[2] Hakan Erdogan, Ruhi Sarikaya, Yuqing Gao, "Using semantic analysis to improve speech recognition performance" Computer Speech and Language, ELSEVIER 2005.

[3] Chadawan Ittichaichareon, Patiyuth Pramkeaw, "Improving MFCC-based Speech Classification with FIR Filter" International Conference on Computer Graphics, Simulation and Modelling (ICGSM"2012) July 28-29, 2012 Pattaya(Thailand).

[4] Bhupinder Singh, Neha Kapur, Puneet Kaur "Sppech Recognition with Hidden Markov Model:A Review" International Journal of Advanced Research in Computer and Software Engineering, Vol. 2, Issue 3, March 2012.

[5] Shivanker Dev Dhingra, Geeta Nijhawan, Poonam Pandit, "Isolated Speech Recognition using MFCC and DTW" International Journal of Advance Research in Electrical, Electronics and Instrumentation Engineering, Vol.2, Issue 8, August 2013.