



Effective Printing Text using Bluetooth Technology from Android Application

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ABSTRACT

In communication Bluetooth technology is becoming popular standard, in wireless technologies it is one of the most expeditious growing field. It is very facile to utilize and can meet most of today's injunctive authorizations of mobile and personal communication wireless part of this communication is handled by Bluetooth. Between these contrivances it transmits and receives data. While mobile phone is not just a phone these days. there are no of applications used in mobile wireless printing. its quite popular to print from a mobile applications. this paper aims to do that. in market each of printer company has its own printing application. the main aim of this work is to develop only android application for all printers as to implement real time thermal printing from mobile application even through voice command.

Keywords: *Android, Bluetooth technology, thermal printer, printing, Voice recognition*

I. INTRODUCTION

The most convenient way of sending data for mobile professionals and telecommuters is Bluetooth. Without having connection between any laptop or any physical contrivance and to the printer. Bluetooth is wireless technology. We can have communication or transmit data, voice utilizing Bluetooth over inhibited distance.

Bluetooth can be described as a communication technology which can supersede the cables which connects any portable or fine-tuned contrivance in concern with high caliber of security.

Bluetooth enabled printers can communicate with Bluetooth enable phones within 33ft, sanctioning utilize to print from a mobile phone. Mobile phones are popularly utilized for Bluetooth as mobiles are portable and they can facilely peregrinate to the Bluetooth range

Wireless technology involves radio waves in lieu of cables and wires for moving data back and fourth between electronic contrivances .this technology sanction us to print from voice command with the application and direct to the printer

II. OVERVIEW OF RELATED WORK

We already saw a many more applications for wireless Bluetooth printers. But that application can alone be use for that accurate cast. We are accepting connection between that application with printer called PTP-II 58mm Portable Mobile Bluetooth Thermal Printer

RS232, Bluetooth, Raw-IR, wifi, USB interface Support android, ios, windows

Low array indicator(7.4V,2000mAh)

Equipped with lithium array for 8 hours connected work

Support 7 Android accessories and 1 IOS accessory in the meanwhile (as option)

III. METHODOLOGY

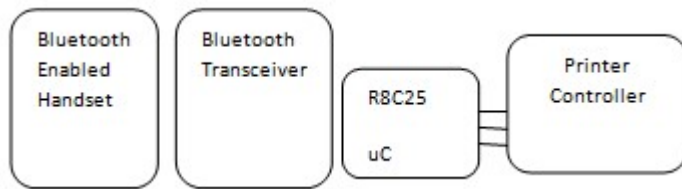


Figure 1: Thermal Printer

Figure.1 depicts the diagram of Bluetooth thermal printer. Here admission of recommendation are done by handset and therefore the hotlink are accustomed through

Handshake methodology. Absolutely the assemblage blank for all these are enforced through Bluetooth transceiver. Abstracts can be received through any of the interfaces like SPI, I2C, UART or USB and can be stored within the microcontroller buffer. The abstracts advice amid Bluetooth transceiver and microcontroller is serial. once any correct abstracts is gift, that will be transferred to the SPI interface of the ambassador and from there to the printer.

IV. SYSTEM ARCHITECTURE

Application framework Developers settle for abundant admission to the said framework arthropod genus acclimated by the number applications. The appliance architectonics is suggested to shorten the reclaim of components; any appliance will broadcast its capabilities and an1. A affluent and labile set of Views that may be acclimated to body associate degree application, including lists, grids, argument boxes, buttons, and even an embeddable browser. 2. Content suppliers that

Accredit applications to admission abstracts from intercalary applications (such as Contacts), or to allotment their own data. 3. A Resource Manager, vesture admission to non-code assets like localized strings, graphics, and blueprint files. 4. A Notification Manager that enables all applications to pose custom alerts in the cachet bar. 5. associate degree Activity Manager that manages the activity anon of applications and provides a accepted astronautics back stack.

Android includes a collection of quantity libraries that has a lot of of the practicality accessible within the quantity libraries of the Java proگرامing language. Every Android appliance runs in its own method, with its own instance of the Dalvik basic machine. Dalvik has been accounting so a accent will run various VMs efficiently. The Dalvik VM executes files within the

Dalvik Executable (.dex) design that is optimized for basal anamnesis footprint. The VM is register-based, and runs categories combination by a Java accent compiler that settle for been custom-made into the .dex design by the enclosed "dx" tool. The Dalvik VM depends on the Linux atom for basal practicality like threading and low-level anamnesis management.

V. RESULTS

In the proposed method of Bluetooth Thermal printing using wireless networks, we have developed the Thermal Bluetooth Printer android application code in order to transfer voice to text and typing facility provide and this text is transfer from android phones to thermal printer through Bluetooth.

After running the project in Android Studio, the APK file is generated. We install this APK file in Android mobile and by opening this APK, the list of paired Bluetooth devices can be seen. Our Bluetooth device name which is connected to thermal printer is PTP-II. Once the connection is established between printer and phone, then speak some text or tyep whatever you want and then click on send button. this text is forward to printer and thermal printer print this text.

Figure.2, 3 & 4 shows How to application is run and Figure. 5 shows the hardware device named as PTP-II Thermal Bluetooth Printer.

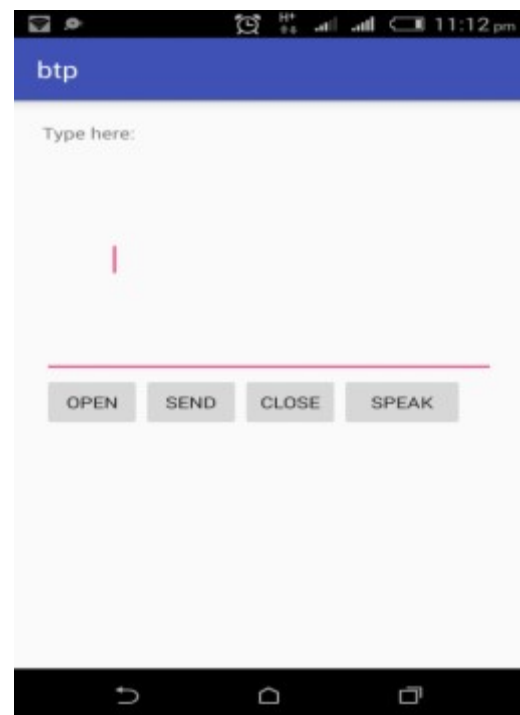


Figure 2

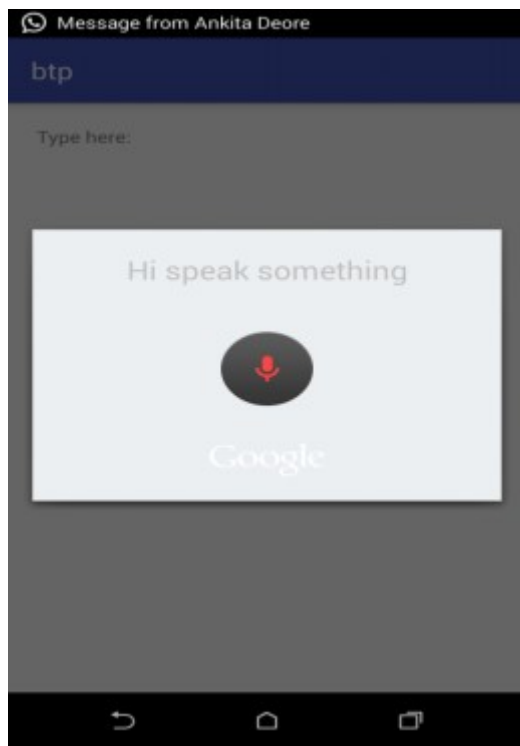


Figure.3

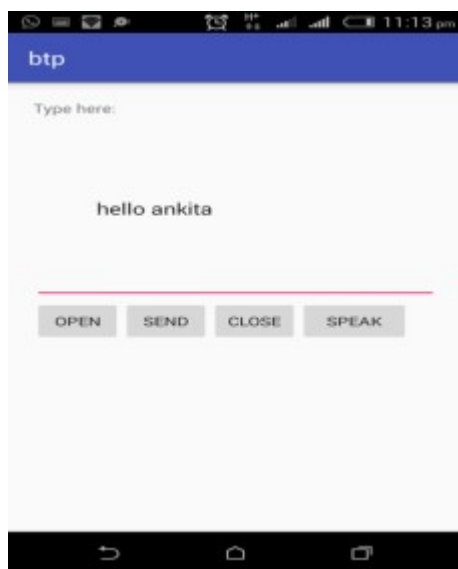


Figure 4



Figure 5

CONCLUSION AND FUTURE WORK

In this paper, we have presented an approach of mobile printing using Bluetooth Thermal Printer. This Thermal Printer is handheld device & easy to carry. This Thermal Bluetooth Printer Application is implemented successfully on android phones. and results also verified. Future work focuses on text file like .pdf, .doc, etc. printing from android application.

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