



**JP INFOTECH**

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## **Bluetooth based chatting system using android**

### **ABSTRACT**

Communication is very important between the people in all areas, why because through communication we can share knowledge, exchange ideas, chat with friends etc., Communication plays vital role in any situation to full fill our needs/tasks. Present communication Medias are computer, mobile phones, pager, etc. Now a days we are using Mobile phones to send SMS and chatting with friends for this if we want to send a message to any one we are depending on service providers like AIRTEL, VODAFONE, IDEA and many more for this message every one charging some amount but with the help of blue we can send message through our mobile phone without depending on any service provider for this reason we can send messages at free of cost. In this Project we developed a chat application with using Bluetooth we can connect two or more mobiles and chat with any people at a time. This application is used to chat with single person or more than two persons mean group chat also available in this application.



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Bluetooth chatting is an innovative approach to the mobile world. This application shows use of Bluetooth in terms of chatting. Means persons can chat via Bluetooth. The main screen has just a list which has two values server and client. By selecting one of these two values, the corresponding instance is created. Main screen is used to initialize the connection. It does following thing at here. First, it starts the application and search the Bluetooth device. It sends the signal to the server class. Second, it can run, pause and stop the application. Third, it shows alert using set Alert function on every changing. Server class goes active when it go signal from the main class. It sends the hello world string with the string to the other devices. Client class works to respond the other Bluetooth device server.

### **EXISTING SYSTEM:**

Chatting has largely been a PC-based addiction. But when it comes to chatting over cell phones, the alternatives are costly like GPRS-based IMs or SMS chat. More than one user can't communicate at a time.

### **DISADVANTAGES OF EXISTING SYSTEM:**

- Unable to chat with community
- Costly chat and one way chat



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## **PROPOSED SYSTEM:**

This is a bluetooth messaging app you can connect and send messages to other android devices and see bluetooth compatible devices around you. No GSM or Wifi connection required all you need is a two bluetooth compatible android devices in range of each other and you can text away. To chat with a user, select it from the list and press 'Ping' to send a welcome message. The other user may do the same. As the welcome message is displayed, use right or left soft key to accept or reject the chat session. Once the session is accepted, the chat starts with colourful text to differentiate users. In addition to this person-to-person chat, chat rooms can be used to gather a number of buddies.

## **ADVANTAGES OF PROPOSED SYSTEM:**

- All peers that want to communicate should have Bluechat running.
- It is enough that one peer does the initial "look for friends" operation.
- Everytime a new comer peer does its first "Look for friends" operation, the operation will reorganize all initial communication and profile sharing stuff.
- Every peer will have an updated list of profiles around automatically and the profile list will be displayed to warn everyone about the new comer.



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- Be aware that if more than one peer do "Look for friends" simultaneously, they might not be able to see each other (because of Bluetooth running principles)

Be aware that the set up of the profile list might take up to one minute. Therefore be patient.

### **MODULES:**

- Scanning for other Bluetooth devices
- Querying the local Bluetooth adapter for paired Bluetooth devices
- Establishing RFCOMM channels/sockets
- Connecting to a remote device
- Transferring data over Bluetooth

### **MODULES DESCRIPTION:**

- **Scanning for other Bluetooth devices**

This application begins searching for devices as soon as it is opened. Options menu appear only after a successful or unsuccessful search is complete.



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Other options are new message alert - vibrate or sound, and refresh rate setting ranging from 30 seconds to three minutes. Users can manually refresh the list of users as well. Select a user from the list and use Options.

- **Querying the local Bluetooth adapter for paired Bluetooth devices**

The Bluetooth Adapter is the entry-point for all Bluetooth interaction. Using this, you can discover other Bluetooth devices, query a list of bonded (paired) devices, instantiate a Bluetooth Device using a known MAC address, and create a Bluetooth Server Socket to listen for communications from other devices. Use this to request a connection with a remote device through a Bluetooth Socket or query information about the device such as its name, address, class, and bonding state. Represents the interface for a Bluetooth socket (similar to a TCP Socket). This is the connection point that allows an application to exchange data with another Bluetooth device via InputStream and OutputStream.

- **Establishing RFCOMM channels/sockets**

In the socket programming model, a socket represents an endpoint of a communication channel. Sockets are not connected when they are first created,



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and are useless until a call to either connect (client application) or accept (server application) completes successfully. Once a socket is connected, it can be used to send and receive data until the connection fails due to link error or user termination.

An RFCOMM Bluetooth Socket used to accept incoming connections must be attached to operating system resources with the bind method. bind takes in a tuple specifying the address of the local Bluetooth adapter to use and a port number to listen on. Usually, there is only one local Bluetooth adapter or it doesn't matter which one to use, so the empty string indicates that any local Bluetooth adapter is acceptable. Once a socket is bound, a call to listen puts the socket into listening mode and it is then ready to accept incoming connections.

- **Connecting to a remote device**

You must request the BLUETOOTH permission in order to perform any Bluetooth communication, such as requesting a connection, accepting a connection, and transferring data. Before your application can communicate over Bluetooth, you need to verify that Bluetooth is supported on the device, and if so, ensure that it is enabled. you need to ensure that Bluetooth is enabled. A dialog



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will appear requesting user permission to enable Bluetooth. Once a connection is made with a remote device for the first time, a pairing request is automatically presented to the user. When a device is paired, the basic information about that device (such as the device name, class, and MAC address) is saved and can be read using the Bluetooth APIs. Using the known MAC address for a remote device, a connection can be initiated with it at any time without performing discovery (assuming the device is within range).

- **Transferring data over Bluetooth**

Check the manual that came with your cellular phone and read the section on Bluetooth capabilities to see if your phone has a Bluetooth password. Note down the password. Power on your cellular phone and access the "Settings" option in the main menu. Choose the "Bluetooth" option if it is immediately available, or choose "Connections" and then "Bluetooth." Press the option for "Activate Bluetooth." Enter in the Bluetooth code that you noted down before if your phone prompts you for one, or instead enter the standard code of "1111" if you don't have your manual and aren't sure what the password is. Repeat the process on the second phone. Navigate to the folder on your phone that holds the file you want to transfer. Choose the file and then choose the option to "Send." Press the option to



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"Send to Phone" and then press the button to send to a connected Bluetooth phone. Enter in the phone number of the other phone if your cell does not prompt you to send to an activated Bluetooth phone in range.

## **SYSTEM REQUIREMENTS:**

### **HARDWARE REQUIREMENTS:**

- System : Pentium IV 2.4 GHz.
- Hard Disk : 40 GB.
- Floppy Drive : 1.44 Mb.
- Monitor : 15 VGA Colour.
- Mouse : Logitech.
- Ram : 512 Mb.

## **SOFTWARE REQUIREMENTS:**

- Operating system : Windows XP.
- Coding Language : Java 1.6
- Tool Kit : Android 3.0
- IDE : Eclipse