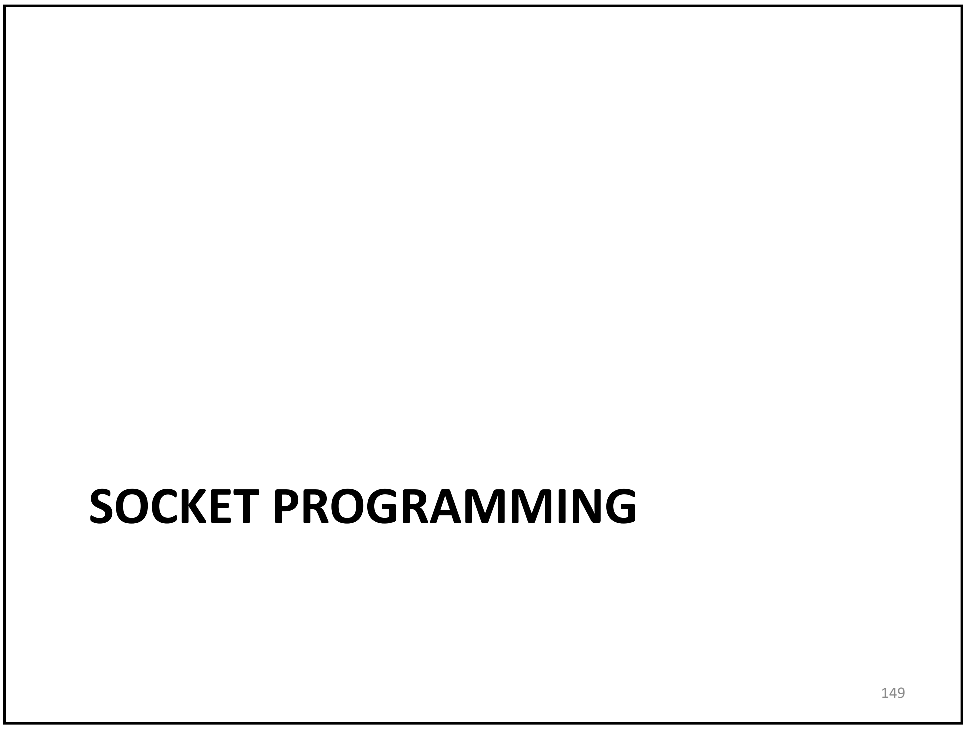
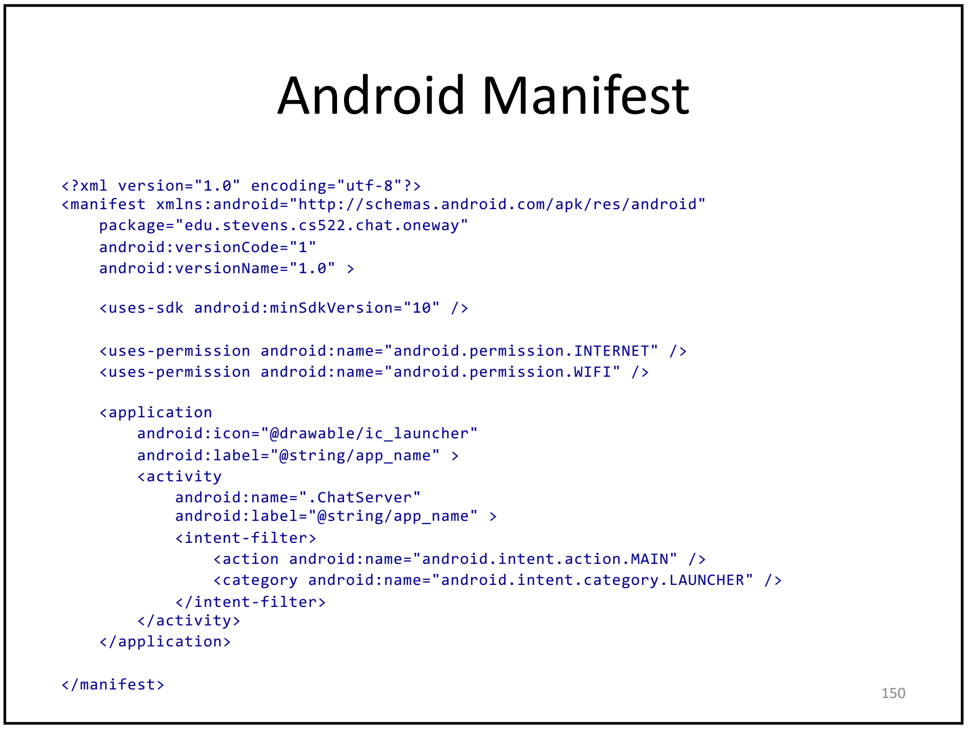


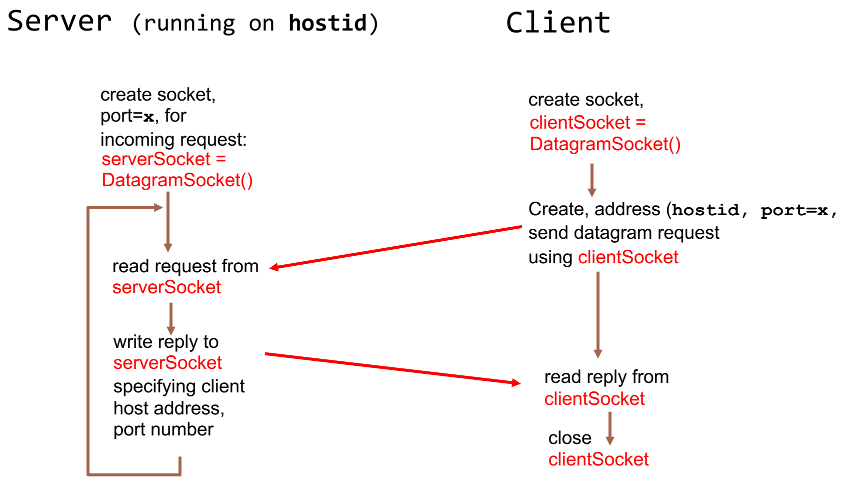
SOCKET PROGRAMMING



Android Manifest

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="edu.stevens.cs522.chat.oneway"
    android:versionCode="1"
    android:versionName="1.0" >

    <uses-sdk android:minSdkVersion="10" />

    <uses-permission android:name="android.permission.INTERNET" />
    <uses-permission android:name="android.permission.WIFI" />

    <application
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name" >
        <activity
            android:name=".ChatServer"
            android:label="@string/app_name" >
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

Client/server socket interaction: UDP



`Server (running on hostid)`

`Client`

create socket, port=**x**, for incoming request:
serverSocket = DatagramSocket()

read request from serverSocket

write reply to serverSocket specifying client host address, port number

create socket,
clientSocket = DatagramSocket()

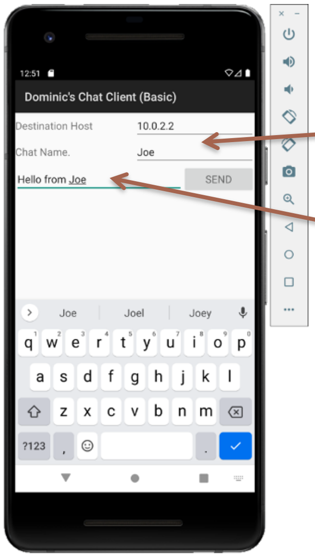
Create, address (**hostid, port=x**,
send datagram request
using clientSocket

read reply from clientSocket

close clientSocket

151

Socket Client



12:51

Dominic's Chat Client (Basic)

Destination Host 10.0.2.2

Chat Name. Joe

Hello from Joe

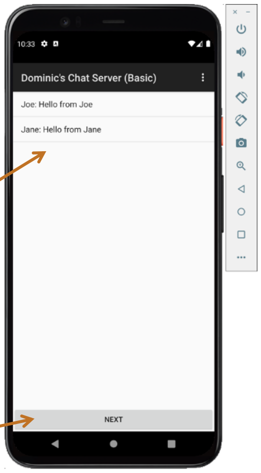
Sends the input from this user to the Chat Server

Text input from the user

152

Socket Server

- Create an application that acts as a chat server to receive messages from the chat client



Dominic's Chat Server (Basic)

Joe: Hello from Joe

Jane: Hello from Jane

List of messages received so far

Press to get the next message

Handling Exceptions

```
try {
   // Operations that may fail
   // and throw an exception;
} catch (Exception e) {
     Log.e(TAG,
      "Caught UDP Exception: "+e.getMessage());
     Toast.makeText(UDPServer.this,
      "UDP Error: "+ e.getMessage()),
      Toast.LENGTH_LONG).show();
}
```