Jamarcus Coulter

1. What is interprocess communication?

Interprocess communications is the communication between activities or other applications. The communication is the passing of data to accomplish a task.

2. Define each of the following and a short description of how each is implemented:

AIDL

Android Interface Definition Language. It defines the programming interface that both the client and service agrees upon in order to communicate with each other using IPC. To define a AIDL interface, first you must create a .aidl file. The Android SDK generates an interface in the Java programming from the .aidl file that has an inner abstract class that extends Binder. The stub class must be extended and methods implemented. In the client class, it must implement Service and override onBind.

Messenger (for IPC)

Allows for message based communication between processes that is referenced by a Handler. It is implemented a Parcelable with a wrapped Messenger on the Creator method. A Messenger can have a Handler or IBinder as a target object.

Binder

An interface that allows IPC between processes and remote method calls. This can be within an app or in other apps. Binder is implemented within the kernel.

3. What are the restrictions for background services and what are some ways to accommodate for the restrictions?

When an app goes to the background, it is given a window of several minutes to create and use services. An app in the background can be placed on the whitelist, where it can start and run services, handles task that visible to the user.

4. What are the restrictions for broadcast receivers?

Broadcast receivers can be restricted by permissions which must be declared in the manifest to receive.The localBroadcastManager restrict the broadcast to the within the app.

5. What is client/server relationships?

A client request access and data from a server and the server handles the requests and provides the data to the client. Generally, one server can service multiple clients.