What is a content provider?

A **content provider** manages access to a central repository of data. A **provider** is part of an Android application, which often provides its own UI for working with the data. However, **content providers** are primarily intended to be used by other applications, which access the **provider** using a **provider** client object.

Can a database have multiple content providers?

No while an app can have many content providers each must have a unique authority

How would your access a content provider?

Through a content resolver, the Content Resolver stores a mapping from authorities to Content Providers. This design is important, as it allows a simple and secure means of accessing other applications’ Content Providers.

What is a system content provider?

A content provider provided as a part of the OS

Explain the flow of grabbing content from a content provider?

Create a database, create the provider class and have it extend the Content Provider class, declare the provider in the manifest, implement the members, make sure to make a unique code for the URI matcher, then create the content URIs.

How to query data from a content provider?

ContentResolver().query. on the content uri

What are projection, selection arguments, selection?

**Projection** means choosing **which columns** (or expressions) the query shall return.

**Selection** means **which rows** are to be returned

selectionArgs = the condition by which rows are filtered

How to get a phone number from a device? Explain the flow?

Add the read contact permission, use the contact contract uri and use the cursor object to handle the data.

How can you make your own content provider?

Create a class that extends ContentProvider

Create a contract class

Create the UriMatcher definition

Implement the onCreate() method

Implement the getType() method

Implement the CRUD methods

Add the content provider to your AndroidManifest.xml

What does the Uri matcher do?

Maps incoming requests to the content provider against codes defined in the URI to check what operation needs to be performed

Does a custom content provider needs to be declared in the manifest?

Yes

What is BroadcastReceiver?

Android apps can send or receive broadcast messages from the Android system and other Android apps.

What are static and dynamic broadcast receiver?

Static receivers are declared in the manifest and can be used outside of the app such as when the phone starts up. Dynamic receivers are created at runtime and so is tied to the apps lifecycle

How to send a broadcast?

Make an intent and then send use sendBroadcast() with your intent

How to make sure other apps can’t listen to your broadcasts?

You use an intent filter, or you can require a custom permission

How to create a broadcast receiver? Explain step by step.

Step one make class and extend it with BroadcastReciever. Next override the function onRecieve to do what I need when I get the broadcast. Next I make an instance of a BroadcastReciever and create a Intent filter to find only what I need to receive. Then you register the receiver. Then call finish or use unregister to close the receiver to avoid memory leaks. Also declare in the manifest if static

How to identify a broadcast?

Not sure what’s being asked. You can filter the broadcasts by the filter passed to the registerBroadcast. I suppose that the filter identifies the broadcast?

What is an intent filter?

The intent filters tells the receiver what broadcast to find and accept

What are the ways you can add an action to the intent/intentFilter?

You can use the XML, or you can use Intent add action

What are System Broadcasts?

They are broadcasts defined by android themselves that you can receive with special tags already defined.