

Android Content Provider

Content Provider

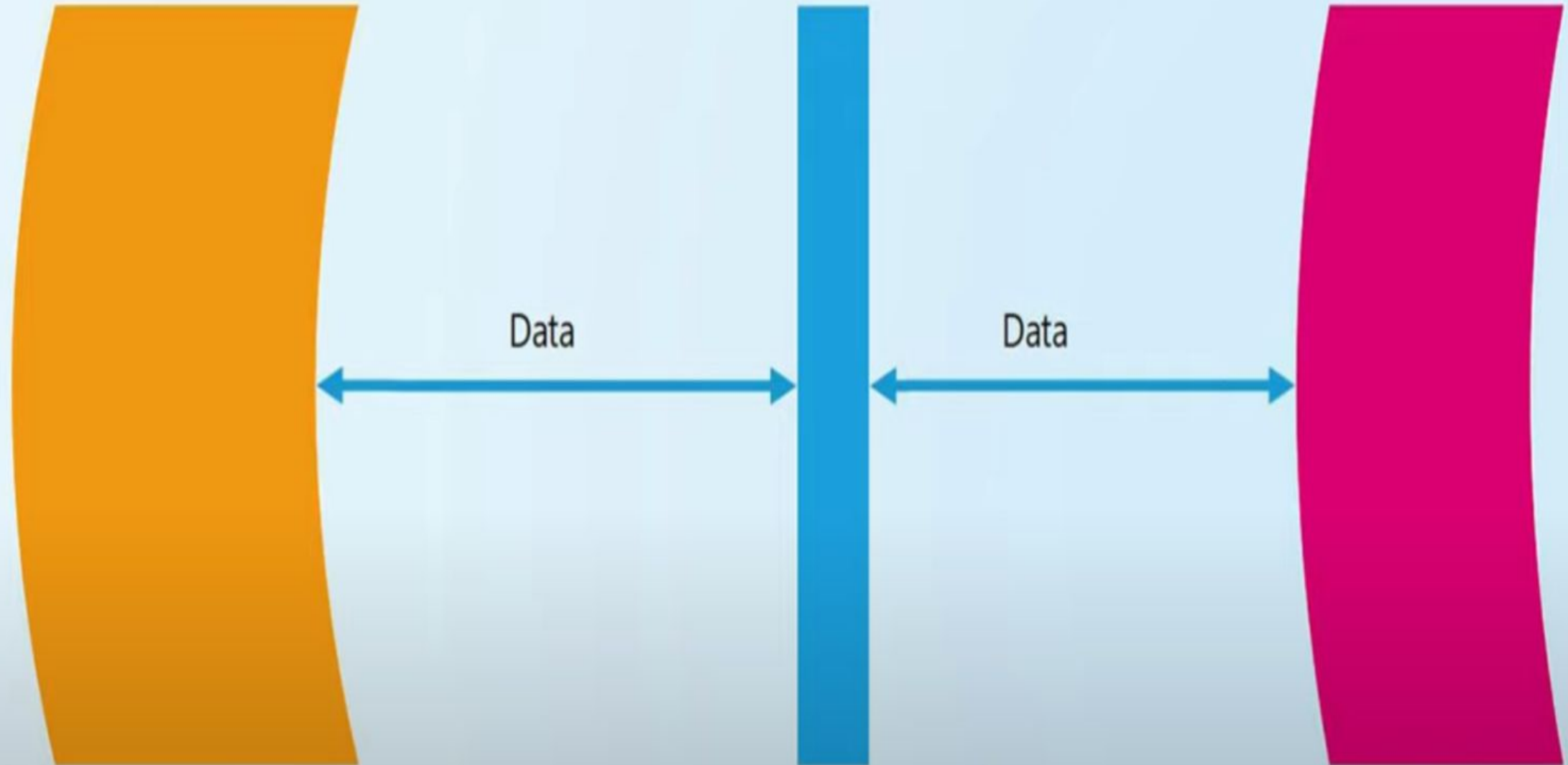
A content provider component supplies data from one application to others on request. Such requests are handled by the methods of the `ContentResolver` class. A content provider can use different ways to store its data and the data can be stored in a database, in files, or even over a network.

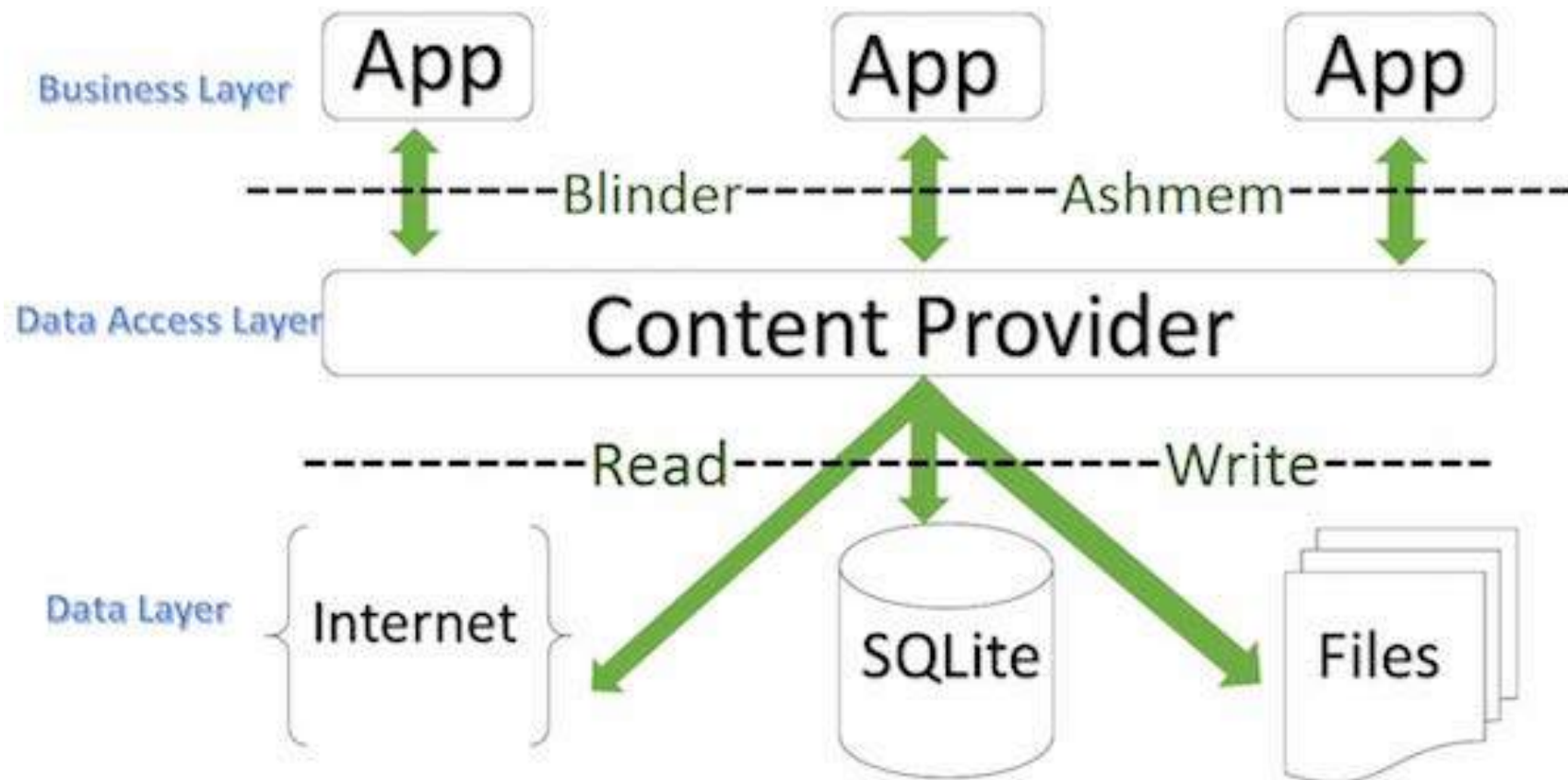
Sometimes it is required to share data across applications. This is where content providers become very useful.

Application # 1

Content Provider

Application # 2





Operations

- Content providers let you centralize content in one place and have many different applications access it as needed. A content provider behaves very much like a database where you can query it, edit its content, as well as add or delete content using `insert()`, `update()`, `delete()`, and `query()` methods. In most cases this data is stored in an SQLite database.
- A content provider is implemented as a subclass of **ContentProvider** class and must implement a standard set of APIs that enable other applications to perform transactions.

```
public class My Application extends ContentProvider {  
}
```

Content URIs

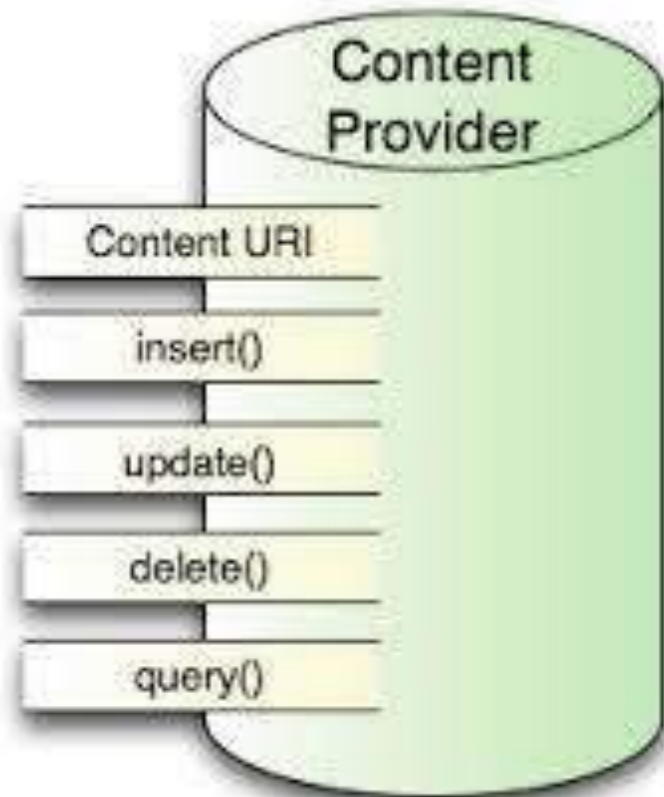
- To query a content provider, you specify the query string in the form of a URI which has following format –

`<prefix>://<authority>/<data_type>/<id>`

Sr.No	Part & Description
1	prefix This is always set to content://
2	authority This specifies the name of the content provider, for example <i>contacts</i> , <i>browser</i> etc. For third-party content providers, this could be the fully qualified name, such as <i>com.statusprovider</i>
3	data_type This indicates the type of data that this particular provider provides. For example, if you are getting all the contacts from the <i>Contacts</i> content provider, then the data path would be <i>people</i> and URI would look like this <i>content://contacts/people</i>
4	id This specifies the specific record requested. For example, if you are looking for contact number 5 in the <i>Contacts</i> content provider then URI would look like this <i>content://contacts/people/5</i> .

Create Content Provider

- Here is the list of methods which you need to override in Content Provider class to have your Content Provider working –



Methods

- **onCreate()** This method is called when the provider is started.
- **query()** This method receives a request from a client. The result is returned as a Cursor object.
- **insert()** This method inserts a new record into the content provider.
- **delete()** This method deletes an existing record from the content provider.
- **update()** This method updates an existing record from the content provider.
- **getType()** This method returns the MIME type of the data at the given URI.