Android Camp

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Core-Member

A Quick Review Of Database Fundamental

ID	Name	College
1	mohamed	FCI
2	amar	FCI
3	fouad	FCI
4	shahawy	FCI
5	Gebreel	FCI
6	Daif	FCI

Type of Database in Android

- Internal Database

  like(Sqlite)

- External Database

  like(Content Provider)

URI

"File://[package]/[res id]"

"File://[package]/[res type]/[res name]"

Internal Database

- Preferences
- Files
- SQLite
- Network

What is SQLite !

- SQLite is an open source Database
- Supports standard relational Database
- Requires only little memory at runtime (250KB)
- Support the data types :
  - TEXT
  - INTEGER
  - REAL
- SQLite doesn't validate if the types written in in the columns are actually of the defined type

Why SQLite !!

Open source

Single File

less than 250KB

Faster

no setup or administration

```
CREATE TABLE DevMix_Member (
id INTEGER PRIMARY KEY AUTOINCREMENT,
name TEXT NOT NULL,
Department TEXT NOT NULL );
```

ID	Name	Dept	Age

```
INSERT INTO DevMix_Member
(Name,Dept,Age)
Values ('Daif','CS','20');
```

ID	Name	Dept	Age
1	Mohamed	CS	20
2	Amar	CS	20
3	Fouad	IT	19
4	Shahawy	CS	20
5	Gebreel	CS	20
6	Daif	CS	20

```
UPDATE DevMix_Member
SET Dept='CS'
WHERE ID=3;
```

ID	Name	Dept	Age
1	Mohamed	CS	20
2	Amar	CS	20
3	Fouad	CS	19
4	Shahawy	CS	20
5	Gebreel	CS	20
6	Daif	CS	20

```
DELETE FROM DevMix_Member
WHERE ID=3;
```

ID	Name	Dept	Age
1	Mohamed	CS	20
2	Amar	CS	20
4	Shahawy	CS	20
5	Gebreel	CS	20
6	Ahmed	CS	20

SQLite Architecture

- Package
  - android.database.sqlite
- SQLiteDatabase
  - insert _ delete _ update _query _ execSQL
- SQLiteOpenHelper
  - Create
  - Upgrade
  - open
  - close

Now Let's Code

SQLiteOpenHelper

subclass of SQLiteDatabase used to create ,upgrade,open and close database.

- constructor parameters
  - Context
  - String name //database name
  - CursorFactory factory // null
  - version //data base version

we delete all constructor parameters except context but we wrote database name ,factory and version in the super of SQLiteDatabase

- Have 2 basis methods
  - onCreate //create our database and take one parameter //(SQLiteDatabase)
  - onUpgrade //used when we want to add new column or table //it take 3 parameter (SQLiteDatabas,old,new version)

SQLiteDatabase

- Exposes methods to manage a SQLite DataBase:
  - insert

    insert(String tableName,String nullColumnHack,ContentValues values)
  - delete

    delete(String tableName,String whereClause,String[] whereArgs)
  - update

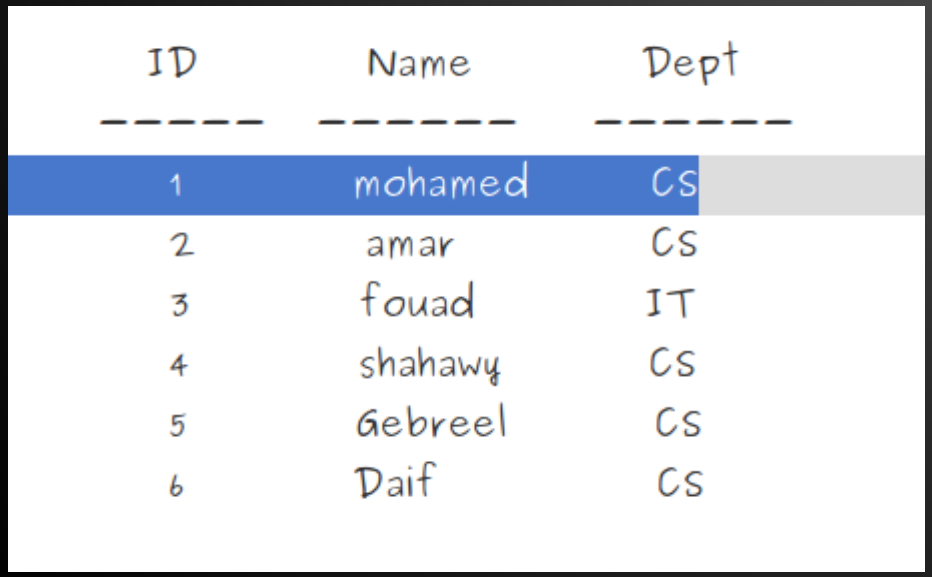
    update(String tableName,ContentValues values,String whereClause,String
[]
    whereArgs)
  - execSQL

    execSQL(String sql)
  - query

    query(String tableName, String[] columns,String selection,String[ ]
    selectionArg,String groupby,String having,String orderBy)

Cursor

ID	Name	Dept
1	mohamed	CS
2	amar	CS
3	fouad	IT
4	shahawy	CS
5	Gebreel	CS
6	Daif	CS



moveToFirst

Wait article about this session on Devmix website

www.devmix.org

Thanks