



Introduction to Mobile Computing with Android

Prof. Manish Kumar Joshi, Assistant Professor
IT & Computer Science





CHAPTER-7

Master SQLite Database

SQLite Database

Android SQLite is a very lightweight database which comes with Android OS. Android SQLite combines a clean SQL interface with a very small memory footprint and decent speed. For Android, SQLite is “baked into” the Android runtime, so every Android application can create its own SQLite databases.



SQLite Database

Android SQLite native API is not JDBC, as JDBC might be too much overhead for a memory-limited smartphone. Once a database is created successfully its located in **data/data/databases/** accessible from Android Device Monitor. SQLite is a typical **relational database**, containing tables (which consists of rows and columns), indexes etc. We can create our own tables to hold the data accordingly. This structure is referred to as a **schema**.

Constructors of SQLiteOpenHelper Class

- SQLiteOpenHelper(Context context, String name, SQLiteDatabase.CursorFactory factory, int version)
- SQLiteOpenHelper(Context context, String name, SQLiteDatabase.CursorFactory factory, int version, DatabaseErrorHandler errorHandler)

Methods of SQLiteOpenHelper Class

- public abstract void onCreate(SQLiteDatabase db)
 - public abstract void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion)
- public synchronized void close ()
- public void onDowngrade(SQLiteDatabase db, int oldVersion, int newVersion)

SQLiteDatabase Class

It contains methods to be performed on sqlite database such as create, update, delete, select etc.

Methods of SQLiteDatabase class

- void execSQL(String sql)
- long insert(String table, String nullColumnHack, ContentValues values)
 - int update(String table, ContentValues values, String whereClause, String[] whereArgs)
 - Cursor query(String table, String[] columns, String selection, String[] selectionArgs, String groupBy, String having, String orderBy)

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