



University of Mila
Computer Science Department

Third-year Bachelor
Mobile Applications Course

Chapter **7 and 8**

Dr. Hamza MEGUEHOUT

2025/2026



SQLite Database

SQLite in Android Studio is a lightweight relational database integrated directly into the Android system, allowing structured data to be stored and managed locally on the device without requiring an external server.

It is ideal for applications that need to keep persistent information such as contacts, notes, or settings.

- SQLite is an open-source relational database based on SQL and integrated into Android.
- It is local and self-contained: the data is stored directly in the device's internal memory, in the **folder data/data/<nom_app>/databases/**.
- It is lightweight and fast, making it suitable for mobile applications that do not require a remote server.
- It allows the management of tables, columns, rows, and relationships just like in a traditional SQL database.

- Android provides the class **SQLiteOpenHelper** to simplify the creation and management of databases.
- **onCreate(SQLiteDatabase db)** : called when the database is created for the first time, to define the tables.
- **onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion)** : called when the database is updated (for example, when adding new columns).
- Common database operations include:
 - ✓ Insertion (INSERT)
 - ✓ Reading (SELECT)
 - ✓ Update (UPDATE)
 - ✓ Deletion (DELETE)

SQLite in Android Studio is the native solution for storing persistent data locally in an Android application. It is simple, fast, and efficient for common needs, but it can be complemented by Room for more modern and secure database management.

Development of a simple application



focus!
on what's important