

SESSION 05

```
export PATH=$PATH:/Users/sajib/Library/Android/sdk/  
platform-tools/
```

SQLite

- android data storage - [[https://
developer.android.com/training/data-storage](https://developer.android.com/training/data-storage)]
- does android support any other databases other than SQLite - [[https://stackoverflow.com/questions/
7143602/does-android-support-any-other-
database-system-other-than-
sqlite#:~:text=Yes.,roll%20out%20your%20own%20
API.](https://stackoverflow.com/questions/7143602/does-android-support-any-other-database-system-other-than-sqlite#:~:text=Yes.,roll%20out%20your%20own%20API.)]
- a contract defines the structure of the database and how the rest of the application sees it.
 - a contract is a class that defines the tables and the columns in those tables that are included in the database.
 - the inner classes should define each table and implement the BaseColumns interface.
 - BaseColumns - [[https://
developer.android.com/reference/kotlin/
android/provider/BaseColumns](https://developer.android.com/reference/kotlin/android/provider/BaseColumns)], [[https://
developer.android.com/reference/android/
provider/BaseColumns](https://developer.android.com/reference/android/provider/BaseColumns)]
 - What is the use of BaseColumns in Android - [[https://stackoverflow.com/questions/
7899720/what-is-the-use-of-basecolumns-
in-
android#:~:text=The%20BaseColumns%20int](https://stackoverflow.com/questions/7899720/what-is-the-use-of-basecolumns-in-android#:~:text=The%20BaseColumns%20int)

erface%20provides%20names,columns)
%20in%20a%20unified%20way.]

- create the actual database specifying the schema.
- create DBHelper
 - because we will be using SQLite as our database, we'll extend the Android class SQLiteOpenHelper to create our DBHelper - [<https://developer.android.com/reference/android/database/sqlite/SQLiteOpenHelper>]
- SQLiteDatabase - [<https://developer.android.com/reference/android/database/sqlite/SQLiteDatabase>]
- Cursor - [<https://developer.android.com/reference/android/database/Cursor>]
 - cursor.moveToPosition(position) -> returns false if position does not exist
 - cursor.getColumnIndex(columnName)
 - cursor.getString(cursor.getColumnIndex(columnName))

```

public class BFFDBHelper extends SQLiteOpenHelper {

    private static final String DATABASE_NAME = "bff_db";
    private static final int DATABASE_VERSION = 1;

    public BFFDBHelper(Context context) {
        super(context, DATABASE_NAME, null, DATABASE_VERSION);
    }

    @Override
    public void onCreate(SQLiteDatabase sqLiteDatabase) {

        final String SQL_CREATE_FRIEND_TABLE = "CREATE TABLE IF NOT EXISTS " +
            BFFContract.Friend.TABLE_NAME +
            " (" +
            BFFContract.Friend._ID +
            " INTEGER PRIMARY KEY AUTOINCREMENT, " +
            BFFContract.Friend.COLUMN_FIRSTNAME +
            " TEXT NOT NULL, " +
            BFFContract.Friend.COLUMN_LASTNAME +
            " TEXT NOT NULL, " +
            BFFContract.Friend.COLUMN_DOB +
            " TIMESTAMP DEFAULT CURRENT_TIMESTAMP)";

        final String SQL_CREATE_CONTACT_TABLE = "CREATE TABLE IF NOT EXISTS " +
            BFFContract.Contact.TABLE_NAME +
            " (" +
            BFFContract.Contact._ID +
            " INTEGER PRIMARY KEY AUTOINCREMENT, " +
            BFFContract.Contact.COLUMN_FRIEND_ID +

```

Constructor 'BFFDBHelper(android.content.Context)' is never used

Safe delete 'BFFDBHelper(Context)' More actions...

```

private static final String DATABASE_NAME = "bff_db";
private static final int DATABASE_VERSION = 1;

public BFFDBHelper(Context context) {
    super(context, DATABASE_NAME, null, DATABASE_VERSION);
}

```

```

@Override
public void onUpgrade(SQLiteDatabase sqLiteDatabase, int i, int i1) {

    final String SQL_DROP_TABLE_FRIEND = "DROP TABLE IF EXISTS " + BFFContract.Friend.TABLE_NAME;

    sqLiteDatabase.execSQL(SQL_DROP_TABLE_FRIEND);
    onCreate(sqLiteDatabase);
}

```

```

@Override
public void onCreate(SQLiteDatabase sqLiteDatabase) {

    final String SQL_CREATE_FRIEND_TABLE = "CREATE TABLE IF NOT EXISTS " +
        BFFContract.Friend.TABLE_NAME +
        " (" +
        BFFContract.Friend._ID +
        " INTEGER PRIMARY KEY AUTOINCREMENT, " +
        BFFContract.Friend.COLUMN_FIRSTNAME +
        " TEXT NOT NULL, " +
        BFFContract.Friend.COLUMN_LASTNAME +
        " TEXT NOT NULL, " +
        BFFContract.Friend.COLUMN_DOB +
        " TIMESTAMP DEFAULT CURRENT_TIMESTAMP);";

    final String SQL_CREATE_CONTACT_TABLE = "CREATE TABLE IF NOT EXISTS " +
        BFFContract.Contact.TABLE_NAME +
        " (" +
        BFFContract.Contact._ID +
        " INTEGER PRIMARY KEY AUTOINCREMENT, " +
        BFFContract.Contact.COLUMN_FRIEND_ID +
        " INTEGER NOT NULL, " +
        BFFContract.Contact.COLUMN_CONTACT_NUMBER +
        " TEXT NOT NULL);";

    sqLiteDatabase.execSQL(SQL_CREATE_FRIEND_TABLE);
}

```

```

package com.debacharya.androidbasics.session05.model;

import android.provider.BaseColumns;

public final class BFFContract {

    public static final class Friend implements BaseColumns {
        public static final String TABLE_NAME = "friend";
        public static final String COLUMN_FIRSTNAME = "firstname";
        public static final String COLUMN_LASTNAME = "lastname";
        public static final String COLUMN_DOB = "dob";
    }

    public static final class Contact implements BaseColumns {
        public static final String TABLE_NAME = "contact";
        public static final String COLUMN_FRIEND_ID = "friendid";
        public static final String COLUMN_CONTACT_NUMBER = "contactnumber";
    }
}

```