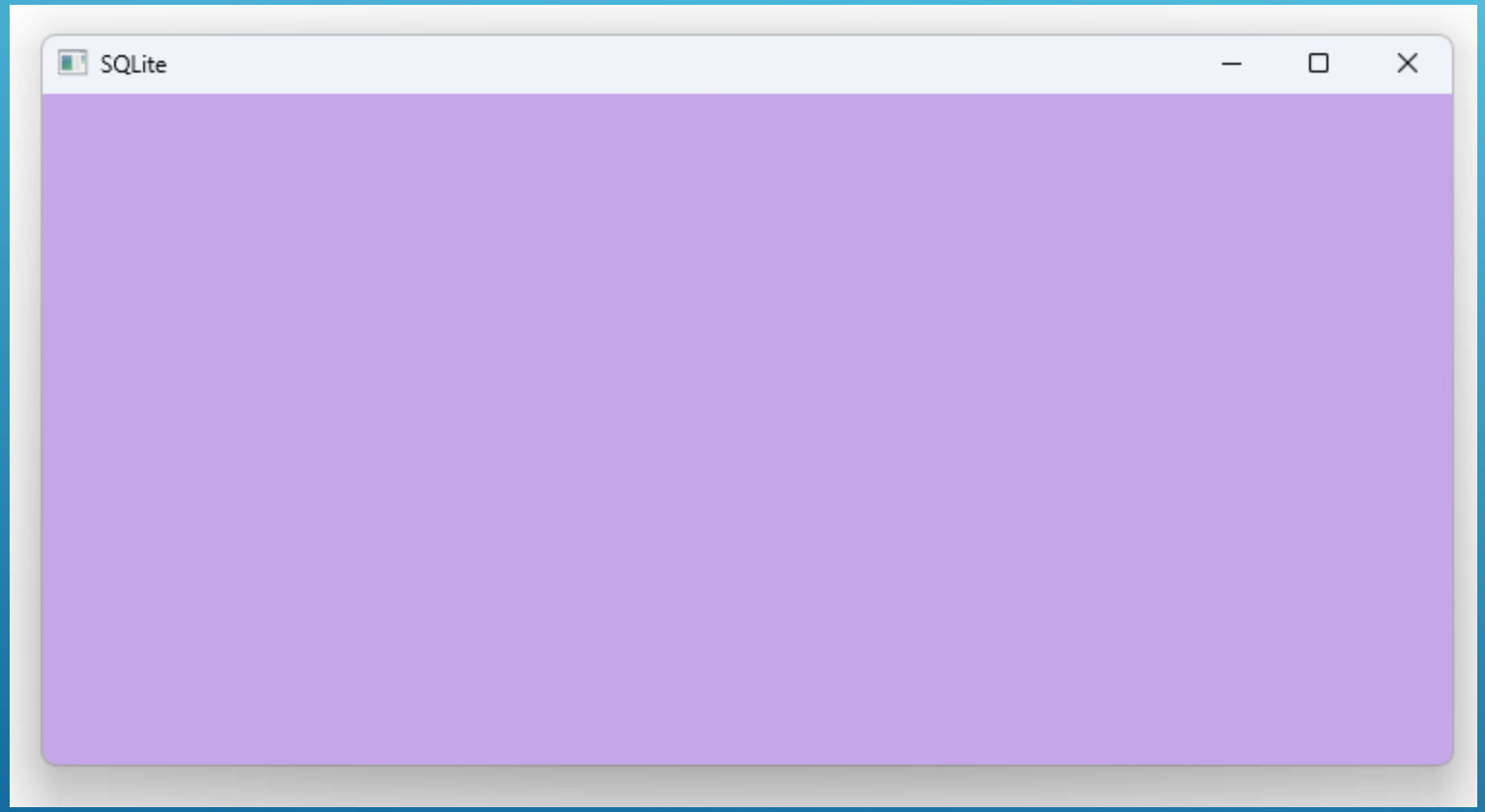
Notes to self

```
    . Exploring the usage of the embedded SQLite database
   . Storing data
   . Reading data
   . Showing the location of the database files on the system(main.cpp)
   . Use the Qt 5 course as a reference and make better slides.
```

Custom Settings



Initialize the db

```
 function dbInit(){
    console.log(" Initializing database...")

    db = LocalStorage.openDatabaseSync("sqlitedemodb", "1.0", "SQLite Demo database", 100000);
    db.transaction( function(tx) {
        print('... create table')
        tx.executeSql('CREATE TABLE IF NOT EXISTS sqlitedemotable(name TEXT, value TEXT)');
    });
}
```

Store data

```
function storeData(){
    if (!db){
        return ;
    }
    db.transaction(function(tx){
        //Check if sqlitedemo entry is available in database table
        var result = tx.executeSql('SELECT * from sqlitedemotable where name = "sqlitedemo"');

        //Prepare json object data from qml code
        var obj = { x: rootId.x, y: rootId.y,
            width : rootId.width,height : rootId.height,
            colorred : containedRectId.color.r,colorgreen : containedRectId.color.g ,
            colorblue : containedRectId.color.b };

        if ( result.rows.length ===1 ){
            //Update
            console.log("Updating database table...")
            result = tx.executeSql('UPDATE sqlitedemotable set value=? where name="sqlitedemo"',
                                   [JSON.stringify(obj)])
        }else{
            //Create entry
            console.log("Creating new database table entry")
            result = tx.executeSql('INSERT INTO sqlitedemotable VALUES (?,?)',
                                   ['sqlitedemo', JSON.stringify(obj)])
        }
    });
}
```

Read Data

```
function readData(){
    if (!db){
        return ;
    }
    db.transaction( function(tx) {
        print('... Reading data from database')
        var result = tx.executeSql('select * from sqlitedemotable where name="sqlitedemo"');

        if(result.rows.length === 1){
            //We have data that we can work  with

            // get the value column
            var value = result.rows[0].value;
            // convert to JS object
            var obj = JSON.parse(value)

            // apply to object
            rootId.x = obj.x;
            rootId.y = obj.y;
            rootId.width= obj.width;
            rootId.height = obj.height
            containedRectId.color= Qt.rgba(obj.colorred,obj.colorgreen,obj.colorblue,1)
        }

    });
}
```

User Interface

```
Rectangle{
    id : containedRectId
    anchors.fill: parent
    color: "red"

    MouseArea{
        anchors.fill: parent
        onClicked: {
            colorDialogId.open()
        }

        ColorDialog {
            id: colorDialogId
            title: "Please choose a color"
            onAccepted: {
                console.log("The new color is : "+ selectedColor)
                containedRectId.color = selectedColor
            }
            onRejected: {
                console.log("Canceled")
            }
        }
    }
}
```

Saving and Loading

```
Component.onCompleted: {
    //Read data
    JS.dbInit()
    JS.readData()
}

Component.onDestruction: {
    JS.storeData()
}
```

CMake

```
find_package(Qt6 6.2 COMPONENTS Quick QuickControls2 REQUIRED)
...
target_link_libraries(app2-Button
    PRIVATE Qt6::Quick Qt6::QuickControls2)
```