# Notes to self

```
. We want to have some gradients applied to the sky and ground.

. When having gradients that to work with transitions, you don't put a Gradient
  in a property change like this :
        .                   PropertyChanges {
            target: sky
            color : "lightblue"
            //                          gradient : Gradient {
            //                              GradientStop { position: 0.0; color: "#AA80FF" }
            //                              GradientStop { position: 1.0; color: "#AACCFF" }
            //                          }
        }
. Instead you give your gradient stop elements ids and target them
  in transitions with the desired values :
        .                   PropertyChanges {
            target: skyStartColorId
            color : "lightblue"
        }
        PropertyChanges {
            target: skyEndColorId
            color : "#EECCFF"
        }
. Organize the content very well in the slides
. Use the qt 5 course as a ref and improvise to make this as understandable as possible.
```

States with Gradients
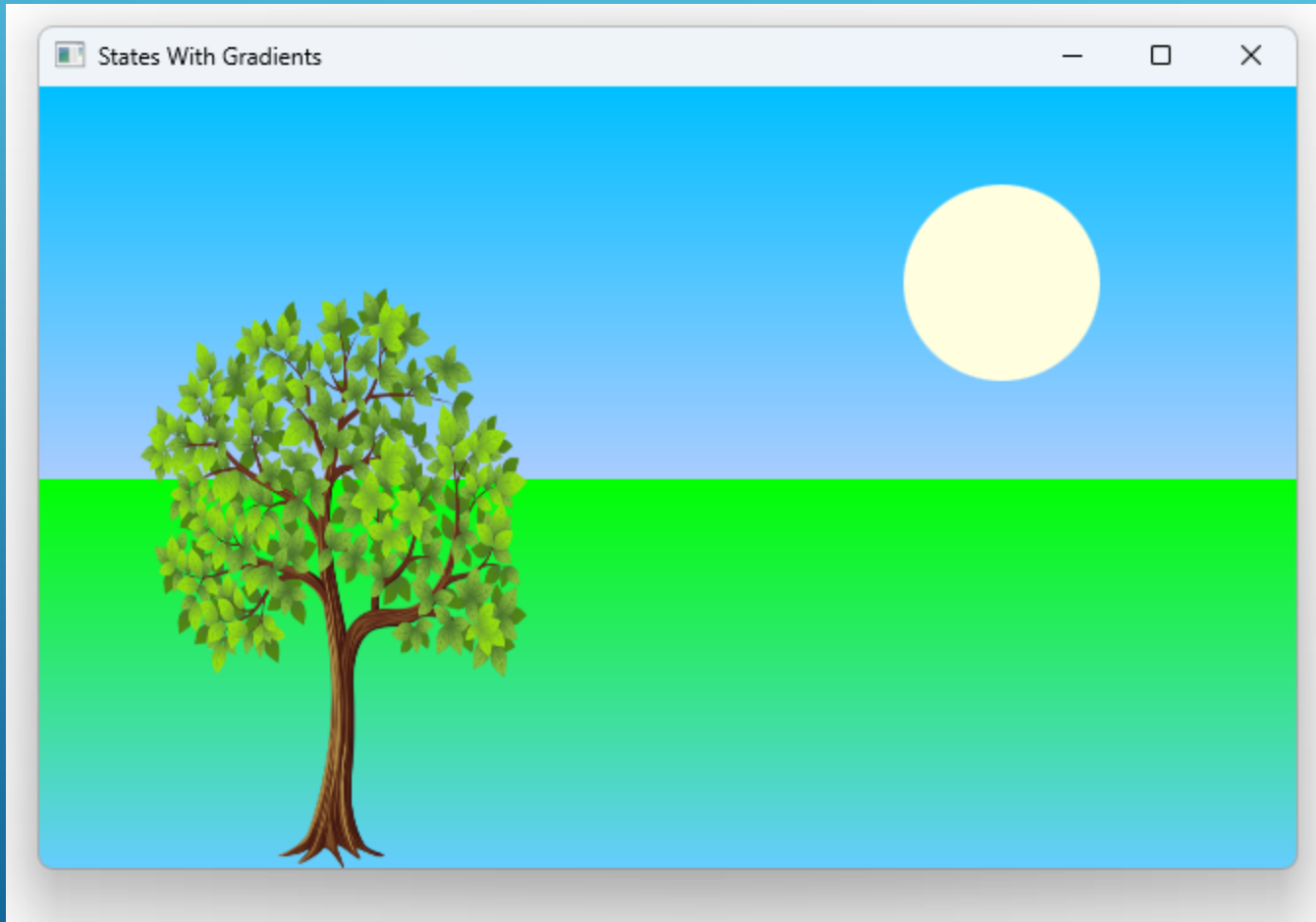
The sky and ground now use gradients

```qml
        Rectangle {
            id: sky
            width: parent.width
            height: 200
            //color : "blue"
            gradient: Gradient {
                GradientStop {id: skyStartColorId; position: 0.0; color: "blue" }
                GradientStop {id : skyEndColorId; position: 1.0; color: "#66CCFF" }
            }
        }

    Rectangle {
            id: ground
            anchors.top: sky.bottom
            anchors.bottom: parent.bottom
            width: parent.width
            //color: "lime"
            gradient: Gradient {
                GradientStop {id: groundStartColorId; position: 0.0; color: "lime" }
                GradientStop {id : groundEndColorId; position: 1.0; color: "#66CCFF" }
            }
        }
```

Problem

- How to we manipulate these gradients when we go from one state to another?

BAD!

```
        State {
            name : "summer"
            PropertyChanges {
                target: sky
                gradient : Gradient {
                        GradientStop { position: 0.0; color: "#AA80FF" }
                        GradientStop { position: 1.0; color: "#AACCFF" }
                }
            }
        }
```

Use id's instead. Gradients have ID's

```qml
        State {
            name : "spring"
            PropertyChanges {
                target: sky
                color : "deepskyblue"
            }
            PropertyChanges {
                target: skyStartColorId
                color : "deepskyblue"
            }
            PropertyChanges {
                target: skyEndColorId
                color : "#AACCFF"
            }
            PropertyChanges {
                target: groundStartColorId
                color : "lime"
            }
            PropertyChanges {
                target: groundStartColorId
                color : "lime"
            }
            //...
        }
```

CMake

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