**Lab Exercise 31– Unit Testing using QMLTestRunner**

To perform unit testing in QML using the QMLTestRunner, you can follow the steps outlined below:

* Create a QML file for your application, such as app.qml.
* Write the QML code to be tested in this file.
* Create a separate QML test file, such as test.qml, for writing the test cases.
* Ensure that the necessary import statements are included in your QML files.
* Define your test cases using the TestCase and SignalSpy elements provided by the Qt Test framework.
* Run the tests using the QMLTestRunner.

Here's a basic example of how to set up and run a QML unit test using the QMLTestRunner:

**app.qml:**

import QtQuick 2.0

Rectangle {

id: testRectangle

width: 100

height: 100

color: "red"

}

**test.qml:**

import QtQuick 2.0

import QtTest 1.0

Item {

id: testItem

TestCase {

name: "RectangleTest"

function testColor() {

compare(testRectangle.color, "red", "Color should be red")

}

}

Component.onCompleted: {

testItem.testCase.run()

}

}

Make sure that you run the QMLTestRunner in the directory containing your test file:

qmltestrunner test.qml

By following this approach, you can conduct unit testing for your QML application using the QMLTestRunner. Adjust the test cases and QML code according to the specific requirements of your application.