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| Module Code: SOFT336SL | Module Name: Cross-platform application in C++ | |
| Coursework Title: Calculator | | |
| Deadline Date:  18th of January 2022 | | Member of staff responsible for coursework:  Mr. Marius Varga |
| Programme: | | |
| Please note that University Academic Regulations are available under Rules and Regulations on the University website [www.plymouth.ac.uk/studenthandbook](http://www.plymouth.ac.uk/studenthandbook). | | |
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SOFT336SL

**Cross-Platform Application Development in C++**

**Simple Calculator**

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# Description of The Project

## Introduction

I created a simple calculator using c++ with QT. It’s a cross platform application. I created components of this application using qt libraries.

## Scope

This is a simple calculator which can perform basic operations like adding, multiplying, dividing, and dividing numbers.

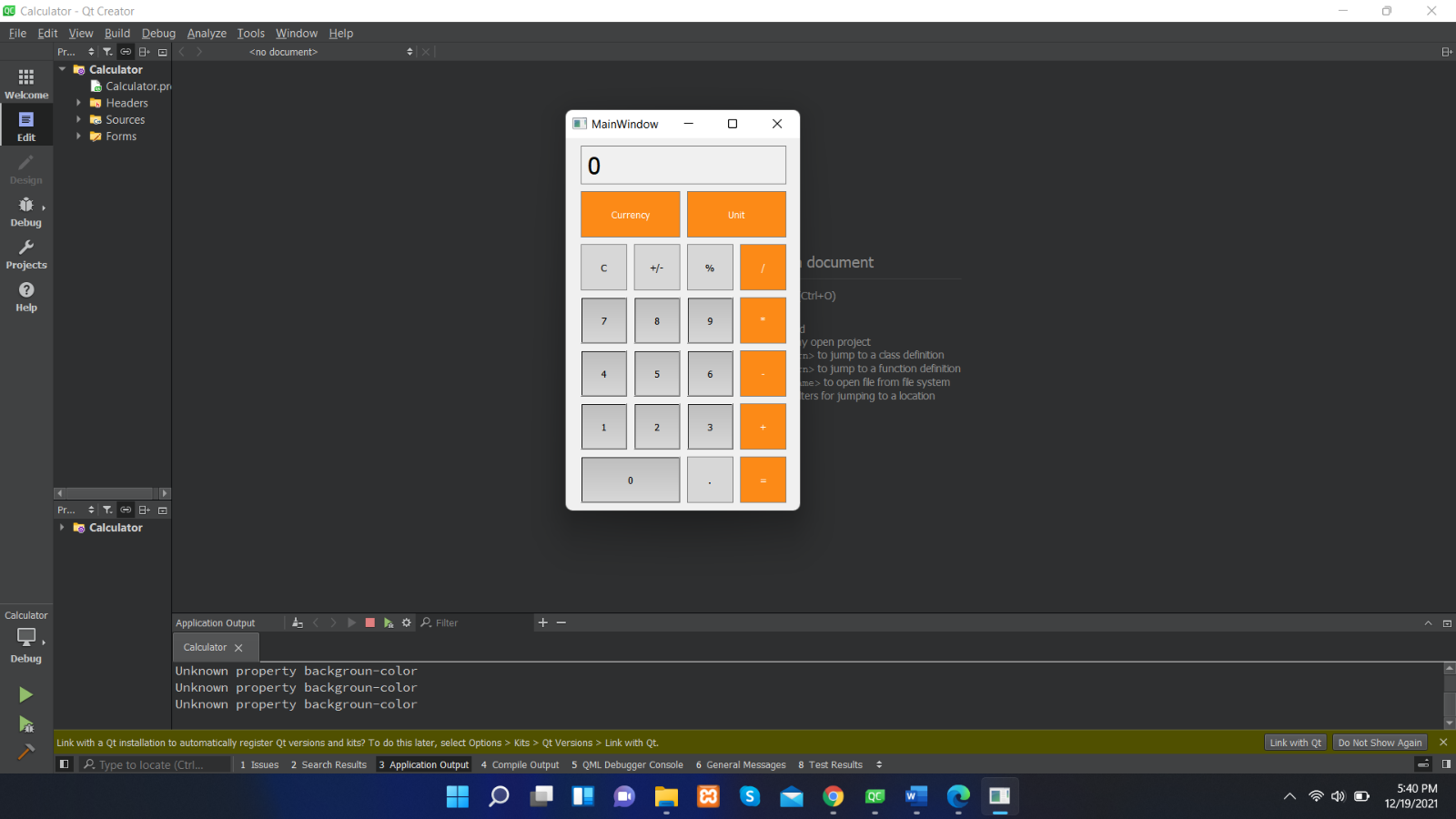
## Functionalities

This application allows user to:

* Add number
* Subtraction
* Multiply
* Division
* Clear inputs
* Plus, or minus functions
* Use decimals

## Supported Platforms

Windows 11

There is no error. Project runs very well.

## Future Improvements

I already added two buttons to this calculator which is called currency and unit. Those two are for calculate currency and get different measurements.

* + Add currency converter
  + Add unit converter

*“Obtain real-time, accurate and reliable currency exchange rate data for hundreds of worldwide currencies, updated as often as every 60 seconds.”*

Because of this reason, I won’t be able to add currency converter, therefore I make it as a future. Though I can give rates from this website(<https://exchangeratesapi.io/>), it’ll be continuously changing time to time. Therefor I need proper mechanism to update the system with current changes. In this situation it’s a challenge to me.

# Technical Details

## GUI Design

Graphical user interface

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Currency Converter

Graphical user interface, application

Description automatically generated

# Implementation Details

Add functions for button functions such as addition, multiplication, division, and other functions.

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Description automatically generated with medium confidence

Signal and slots for button functions.

A screenshot of a computer

Description automatically generated with medium confidence

This calculator gets 15 number of inputs. Its in a range of 15 numbers.

A screenshot of a computer

Description automatically generated

Functionality of +/- operation button and “.” Decimal point operation button.

A screenshot of a computer

Description automatically generated

Functionality of clear “c” operation button and equal “=” operation button.

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Description automatically generated

A screenshot of a computer

Description automatically generated

# Design of UI

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# A screenshot of a computer Description automatically generated

# Resources

Here are the resources I used to build this application other than the lecture materials and recordings.

<https://youtu.be/FhV1ZEVNK08>

<https://www.youtube.com/watch?v=EkjaiDsiMQ&list=PLS1QulWo1RIZiBcTr5urECberTITj7g>

<https://www.youtube.com/watch?v=F56fSKoNCtk&list=PLS1QulWo1RIZiBcTr5urECberTITj7gjA&index=5>