

Firstly, design is handled with qt designer tool. Calculator's slots are defined in calculator.h under the "private slots:" section. QPushButton objects are created in calculator.cpp are associated with the buttons in calculator ui designed with qt designer tool. These buttons' released signals connected to appropriate slots of calculator object.

Calculator displays all the inputs on the screen until the equals button is pressed. In this calculator no two operators (+ - =) can be next to each other. If user does this, "Syntax Error" message is displayed on the screen. If user wants to continue doing calculations, (s)he has to push the Clr button. If there is a syntactically correct equation on the screen, equals button is pressed by the user to see the result. If user wants to continue doing calculations by using the result, add or subtract button should be pressed. If any other digit button is pressed, screen is cleared and value of button pressed by user is displayed.

When Clr button is pressed, all variables are converted to initial state.

When Equals button is pressed and if there is no syntax error, display line is parsed from spaces and every token is stored in the vector. Calculation is done by converting hexadecimal numbers to decimal numbers. Result is displayed as hexadecimal number.

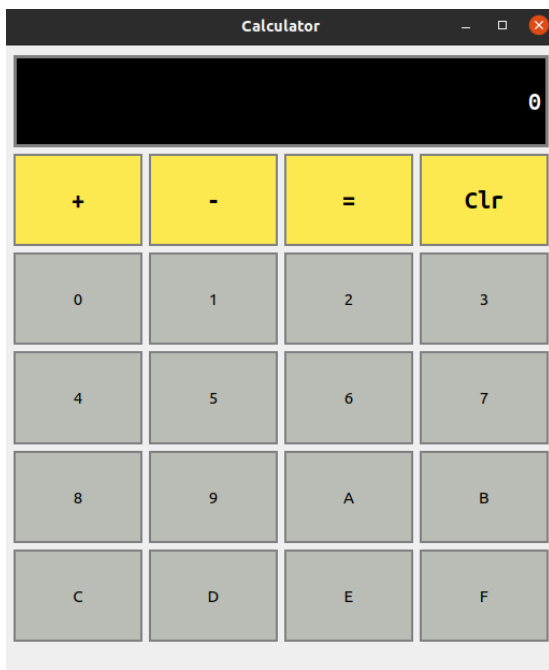


Figure 1: Initial State

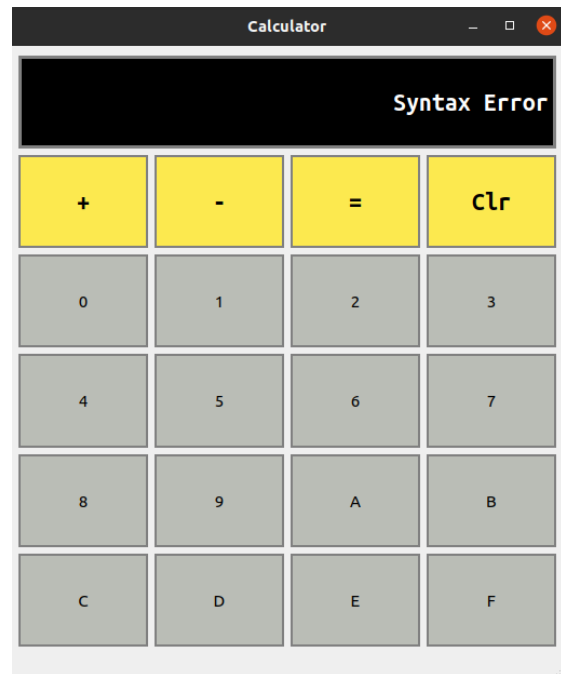


Figure 2: Syntax Error e.g "1 + 2 + - A"