

CALCULATOR

This is a simple console-based calculator implemented in C++. The system allows users to perform different mathematical calculations like addition, subtraction, sin, cos, log and so on.

STRUCTURES AND FUNCTIONS

Entrants details:

- 1.Addition: float that stores the added value of two numbers
- 2.Subtraction: float that stores the subtracted value of two numbers
- 3.Multiplication: float that stores the multiplied value of two numbers
- 4.Division: float that stores the divided value of two numbers
- 5.Exponent: float that stores the exponential of a number
- 6.Square Root: float that stores the square root of a number
- 7.log: float that stores the logarithmic value of a number
- 8.sin: float that stores the sin value of a number
- 9.cos: float that stores the cos value of a number
- 10.tan: float that stores the tan value of a number
- 11.Inverse of sin: float that stores the inverse sin value of a number
- 12.Inverse of cos: float that stores the inverse cos value of a number
- 13.Inverse of tan: float that stores the inverse tan value of a number
- 14.Exit: exits the program

Switch Statement:

Switch statement is used in this program that allows the user to choose which calculation is to be performed.

For example: If the user chooses 1 then addition is performed.

MENU OPTIONS:

- The menu asks the user which function is to be performed among the 14 options.
- The user chooses the number according to the number given for each function.

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                        CALCULATOR
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1:Addition           8:sin
2:Subtraction        9:cos
3:Multiplication     10:tan
3:Division           11:Inverse of sin
5:Exponent           12:Inverse of cos
6:Square Root        13:Inverse of tan
7:Log                14:Exit

Enter the function that you want to perform :
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SAMPLE OUTPUT:

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                        CALCULATOR
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1:Addition           8:sin
2:Subtraction        9:cos
3:Multiplication     10:tan
3:Division           11:Inverse of sin
5:Exponent           12:Inverse of cos
6:Square Root        13:Inverse of tan
7:Log                14:Exit

Enter the function that you want to perform : 1

Enter 1st number : 10

Enter 2nd number : 33

Result = 43

Enter the function that you want to perform : █
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                        CALCULATOR
-----
1:Addition           8:sin
2:Subtraction        9:cos
3:Multiplication     10:tan
3:Division           11:Inverse of sin
5:Exponent           12:Inverse of cos
6:Square Root        13:Inverse of tan
7:Log                14:Exit

Enter the function that you want to perform : 10

Enter the number : 50

Result = -0.271901
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Enter the function that you want to perform : 5

Enter the number : 5

Enter the Exponent : 3

Result = 125
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                        CALCULATOR
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1:Addition           8:sin
2:Subtraction        9:cos
3:Multiplication     10:tan
3:Division           11:Inverse of sin
5:Exponent           12:Inverse of cos
6:Square Root        13:Inverse of tan
7:Log                14:Exit

Enter the function that you want to perform : 12

Enter the number : 1

Result = 0
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CONCLUSION:

The Scientific Calculator effectively demonstrates the fundamental concepts of C++ programming, including structures, functions, and basic user interaction. It provides a clear and functional interface for performing and displaying different mathematical operations and its results. The switch statement made the program organized as well as easy to understand. Overall, the program serves as a practical and educational example of managing simple rental operations in C++.