C MINI PROJECT CALCULATOR.

CHIRAG MEHRA
RA2111003010467

SECTION G1 |DATE – 26th June,2022

Algorithm of Calculator Program

Step 1: Declare local variables n1, n2, res, opt. For example, where n1 and n2 take two numeric values, res will store results and opt variable define the operator symbols.

Step 2: Print the Choice (Addition, Subtraction, multiplication, division, etc.

Step 3: Enter the Choice

Step 4: Takes two numbers, n1 and n2

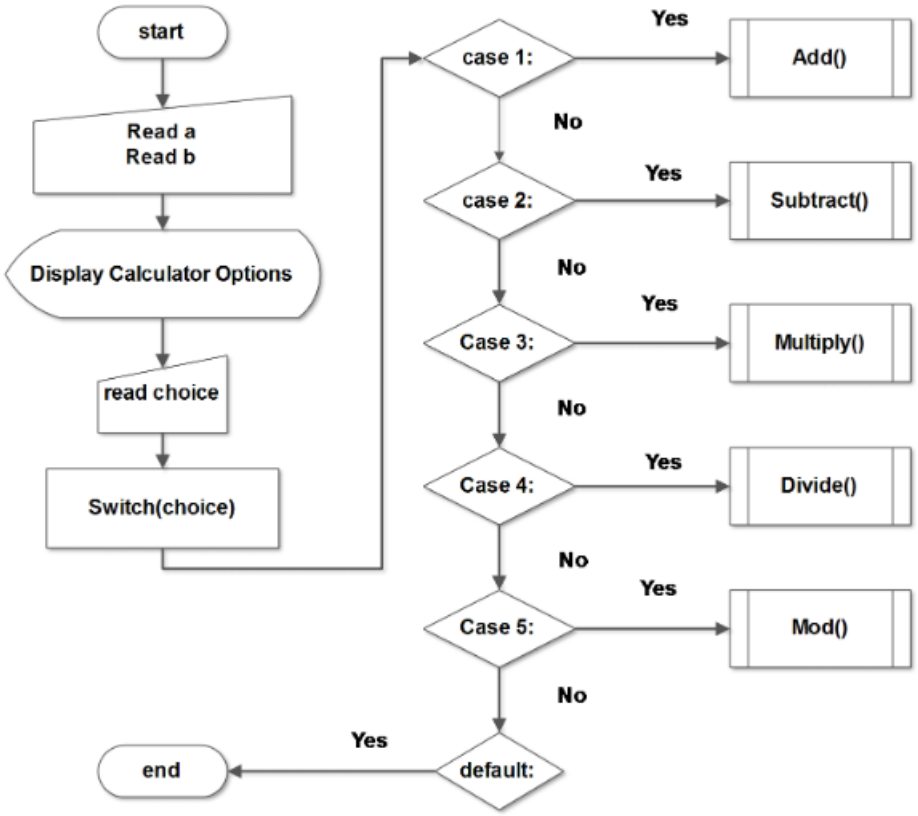
Step 5: Switch case jump to an operator selected by the user

Step 6: Store result into res variable.

Step 7: Display the operation result

Step 8: Exit from the program.

Flowchart



Flowchart-Calculator Program

Pseudo Code

- **1 Step:** BEGIN.
- **2 Step:** PRINT ENTER YOUR CHOICE.
- **3 Step:** ENTER YOUR CHOICE.
- **4 Step:** ENTER TWO OPERANDS FOR OPERATION.
- **5 Step:** USER WILL ENTER +,-,*,/ .
- **6 Step:** SWITCH(OPERATOR)
- **7 Step:** DO THE OPERATION.
- **8 Step:** PRINT THE RESULT.
- **9 Step:** EXIT.

Code

```
#include<stdio.h>
int main()
{
  int choice;
  long num1, num2, x;
  printf("Please choose your option:"
        "\n1 = Addition"
        "\n2 = Subtraction"
        "\n3 = Multiplication"
        "\n4 = Division"
        "\n5 = Squares"
        "\n6 = exit"
        "\n\nChoice: ");
  scanf("%d", &choice);
  //while loop check whether the choice is in the given range
  while(choice < 1 || choice > 6)
  {
    printf("\nPlease choose the above mentioned option."
          "\nChoice: ");
    scanf("%d", &choice);
  }
  switch (choice)
  {
  case 1:
    printf("Enter two numbers: \n");
    scanf("%ld %ld", &num1, &num2);
    x = num1 + num2;
    printf("Sum = %ld", x);
    break;
  case 2:
    printf("Enter two numbers: \n");
```

```
    scanf("%ld %ld", &num1, &num2);
    x = num1 - num2;
    printf("Subtraction = %ld", x);
    break;
  case 3:
    printf("Enter two numbers: \n");
    scanf("%ld %ld", &num1, &num2);
    x = num1 * num2;
    printf("Product = %ld", x);
    break;
  case 4:
    printf("Enter Dividend: ");
    scanf("%d", &num1);
    printf("Enter Divisor: ");
    scanf("%d", &num2);
   //while loop checks for divisor whether it is zero or not
   while(num2 == 0)
   {
     printf("\nDivisor cannot be zero."
          "\nEnter divisor once again: ");
     scanf("%d", &num2);
   }
   x = num1 / num2;
   printf("\nQuotient = %ld", x);
   break;
  case 5:
    printf("Enter any number: \n");
    scanf("%ld", &num1);
    x = num1 * num1;
    printf("Square = %ld", x);
    break;
  case 6:
  return 0;
  default: printf("\nError");
  }
}
```