Experiment No. 5

Date :

Aim : Write a menu driven program in C++ with the help of arithmetic operators in order to perform the operation of addition, subtraction, multiply & division of two numbers.

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Theory : Menu driven program is a program that represents a menu of options to the user and different actions are performed based on different options.
The switch case statement in C++ is a flow control statement that is used to execute the different blocks of statements based on the value of given expression. User can create different cases for different values of the given expression. User can create n number of cases in the switch statement, but the case value can only be of datatype "int" or "char".

Syntax :

```
switch (exp) {
    case value_1:
        // statements_1;
        break;
    case value_2:
        // statements_2;
        break;
    .....
    .....
    .....
    default :
        // default_statements;
        break;
}
```

Code :

```
#include<iostream>
using namespace std;

int main (){
    int choice;
    float num1, num2;
    float result;

do{
    cout << " **** Menu **** " << endl;
    cout << "1. Add " << endl;
    cout << "2. Substract " << endl;
    cout << "3. Multiply " << endl;
    cout << "4. Divide " << endl;
    cout << "5. Exit " << endl;
    cout << "Enter your choice " << endl;
    cin >> choice;



if (choice == 5){
    cout << "Exiting program " << endl;
    break;
}

cout << "Enter two numbers :";
cin >> num1 >> num2;
```

```
switch (choice) {
    case 1 :
            result = num1 + num2 ;
            cout << "result : " << num1 << " + "
            << num2 << " = " << result << endl;
            break ;

    case 2 :
            result = num1 - num2 ;
            cout << " result : " << num1 << " - "
            << num2 << " = " << result << endl;
            break ;

    case 3 :
            result = num1 * num2 ;
            cout << " result: " << num1 << "*"
            << num2 << " = " << result << endl ;
            break ;

    case 4 :
            if (num2 != 0 ) {
            result = num1 / num2 ;
            cout << " Result : " << num1 << "/"
            << num2 << " = " << result << endl;
    }
```

Conclusion: This practical has been executed successfully.

```
else {
    cout<<" Error : Division by zero is not
            allowed. " << endl;
}
break;

default :
        cout <<" Invalid choice. Please choose a
        number between 1 & 5." << endl;
}
cout << endl;
}
while (choice != 5);
return 0;
}
```

Output:

```
**** Menu ****
1. Add
2. Subtract
3. Multiply
4. Divide
5. Exit
Enter your choice (1-5):
```

Conclusion: This practical has been executed successfully.