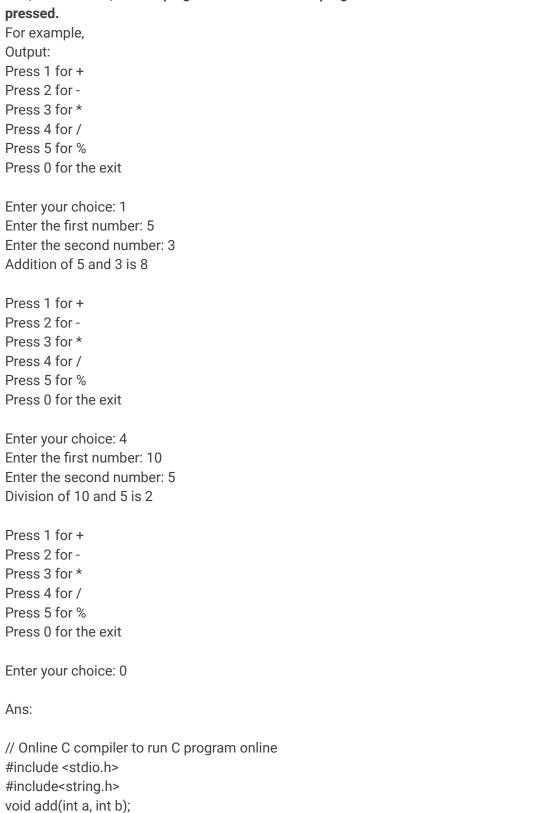
## Q.1 Write a menu-driven program to implement arithmetic operations such as +, -, \*, /, and % using UDF, switch case, and looping. Make sure that the program is endless until a certain letter is pressed.



```
void subtract(int a, int b);
void multiply(int a, int b);
void divide(int a, int b);
void modulus(int a, int b);
int main() {
  int choice;
  int a, b;
  while (1) {
    printf("Press 1 for +\n");
    printf("Press 2 for -\n");
    printf ("Press 3 for *\n");
    printf("Press 4 for /\n");
    printf("Press 5 for %\n");
    printf("Press 0 for exit\n");
    printf("Enter your choice: ");
    scanf("%d", &choice);
    if (choice == 0)
       break;
    printf("Enter the first number: ");
    scanf("%d", &a);
    printf("Enter the second number: ");
    scanf("%d", &b);
    switch (choice) {
       case 1:
         add(a, b);
         break;
       case 2:
          subtract(a, b);
         break;
       case 3:
         multiply(a, b);
         break;
       case 4:
          divide(a, b);
         break;
       case 5:
         modulus(a, b);
         break;
       default:
         printf("Invalid choice\n");
    }
  }
  return 0;
}
```

```
void add(int a, int b) {
  printf("Addition of %d and %d is %d\n", a, b, a + b);
void subtract(int a, int b) {
  printf("Subtraction of %d and %d is %d\n", a, b, a - b);
void multiply(int a, int b) {
  printf("Multiplication of %d and %d is %d\n", a, b, a * b);
void divide(int a, int b) {
  if (b != 0)
    printf("Division of %d and %d is %f\n", a, b, (float)a / b);
  else
    printf("invalid!\n");
}
void modulus(int a, int b) {
  if (b != 0)
    printf("Modulus of %d and %d is %d\n", a, b, a % b);
  else
    printf("invalid!\n");
}
o/p:
Press 1 for +
Press 2 for -
Press 3 for *
Press 4 for /
Press 5 for %
Press 0 for exit
Enter your choice: 1
Enter the first number: 5
Enter the second number: 3
Addition of 5 and 3 is 8
Press 1 for +
Press 2 for -
Press 3 for *
Press 4 for /
Press 5 for %
Press 0 for exit
Enter your choice: 4
Enter the first number: 10
Enter the second number: 5
Division of 10 and 5 is 2.000000
```

Press 1 for +

Press 2 for -

Press 3 for \*

Press 4 for /

Press 5 for %

Press 0 for exit

Enter your choice: 0

=== Code Execution Successful ===