```
int main() {
  char operator;
  double num1, num2, result;
  // Asking the user to enter an operator
  printf("Enter an operator (+, -, *, /): ");
  scanf("%c", &operator);
  // Asking the user to enter two operands
  printf("Enter two numbers: ");
  scanf("%lf %lf", &num1, &num2);
  // Switch case to perform the operation
  switch(operator) {
    case '+':
      result = num1 + num2;
      break;
    case '-':
      result = num1 - num2;
      break;
    case '*':
      result = num1 * num2;
      break:
    case '/':
      if (num2 != 0) {
         result = num1 / num2;
      } else {
         printf("Error! Division by zero.\n");
         return 1;
      }
      break;
    default:
      printf("Error! Invalid operator.\n");
      return 1;
  }
  // Displaying the result
  printf("Result: %.2lf\n", result);
  return 0;
}
```

#include <stdio.h>