



University of Information Technology and Sciences

Department of CSE

# Assignment

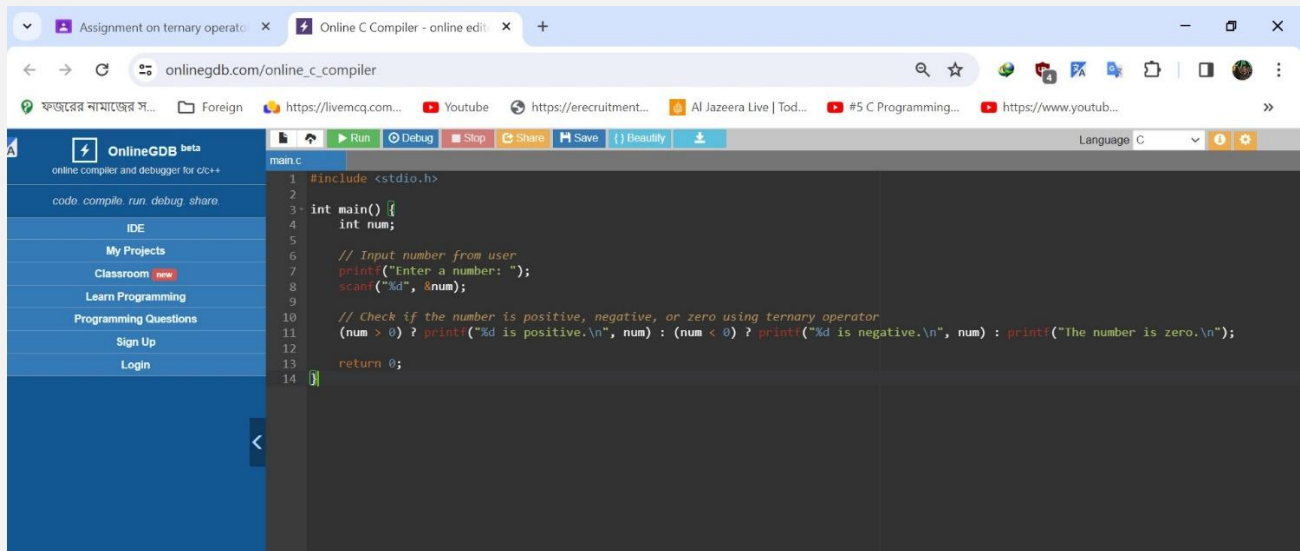
Course code :	CSE0613112
Course title :	Structured Programming Language Lab
Assignment No.	03
Assignment title :	Assignment on ternary operator and if-else statement
Submission date :	02 March 2024

Submitted by:	Submitted to:
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Batch : CSE-55	Dept. of CSE
Section : 1A2	University of Information Technology and Sciences.

**Programme no:** 01

**Programme name:** Write a program in C that checks a number is positive, negative or zero.

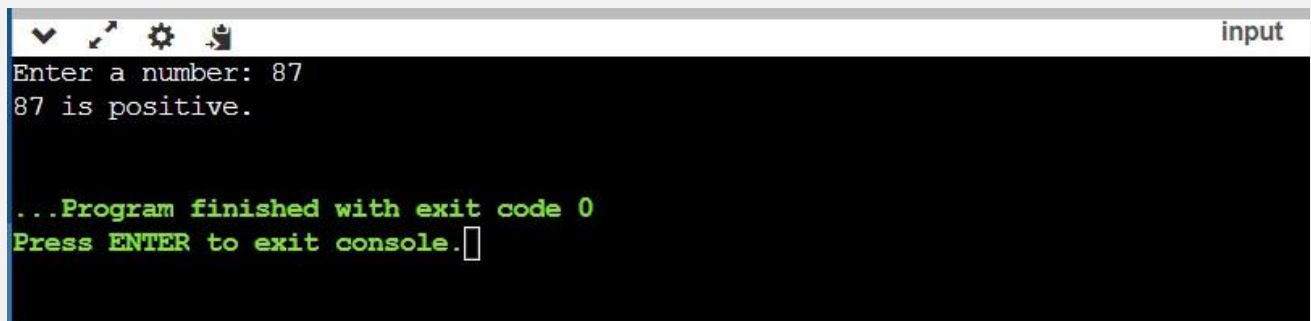
**Source code:** Here is the following source code of this programme:



The screenshot shows the OnlineGDB online C compiler interface. The browser address bar displays 'onlinegdb.com/online\_c\_compiler'. The left sidebar contains navigation links: IDE, My Projects, Classroom, Learn Programming, Programming Questions, Sign Up, and Login. The main editor area shows the following C code:

```
main.c
1 #include <stdio.h>
2
3 int main() {
4     int num;
5
6     // Input number from user
7     printf("Enter a number: ");
8     scanf("%d", &num);
9
10    // Check if the number is positive, negative, or zero using ternary operator
11    (num > 0) ? printf("%d is positive.\n", num) : (num < 0) ? printf("%d is negative.\n", num) : printf("The number is zero.\n");
12
13    return 0;
14 }
```

**Input/Output:** Here is the input and output of the programme:



The screenshot shows the input and output of the program in the OnlineGDB console. The input is '87' and the output is '87 is positive.' followed by '...Program finished with exit code 0' and 'Press ENTER to exit console.'

```
input
Enter a number: 87
87 is positive.

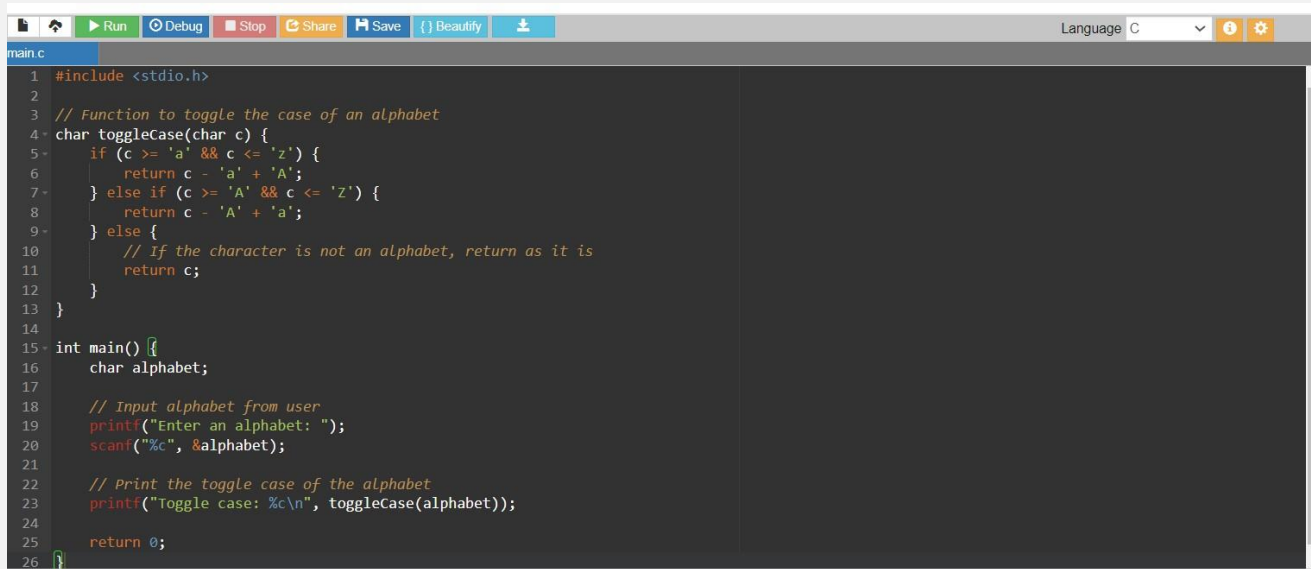
...Program finished with exit code 0
Press ENTER to exit console.
```

**Conclusion:** The programme has shown our expected values and we can call this programme a legit.

**Programme no:** 02

**Programme name:** Write a program in C that prints the toggle case of an alphabet.

**Source code:** Here is the following source code of this programme:



```
1 #include <stdio.h>
2
3 // Function to toggle the case of an alphabet
4 char toggleCase(char c) {
5     if (c >= 'a' && c <= 'z') {
6         return c - 'a' + 'A';
7     } else if (c >= 'A' && c <= 'Z') {
8         return c - 'A' + 'a';
9     } else {
10        // If the character is not an alphabet, return as it is
11        return c;
12    }
13 }
14
15 int main() {
16     char alphabet;
17
18     // Input alphabet from user
19     printf("Enter an alphabet: ");
20     scanf("%c", &alphabet);
21
22     // Print the toggle case of the alphabet
23     printf("Toggle case: %c\n", toggleCase(alphabet));
24
25     return 0;
26 }
```

**Input/Output:** Here is the input and output of the programme:



```
Enter an alphabet: F
Toggle case: f

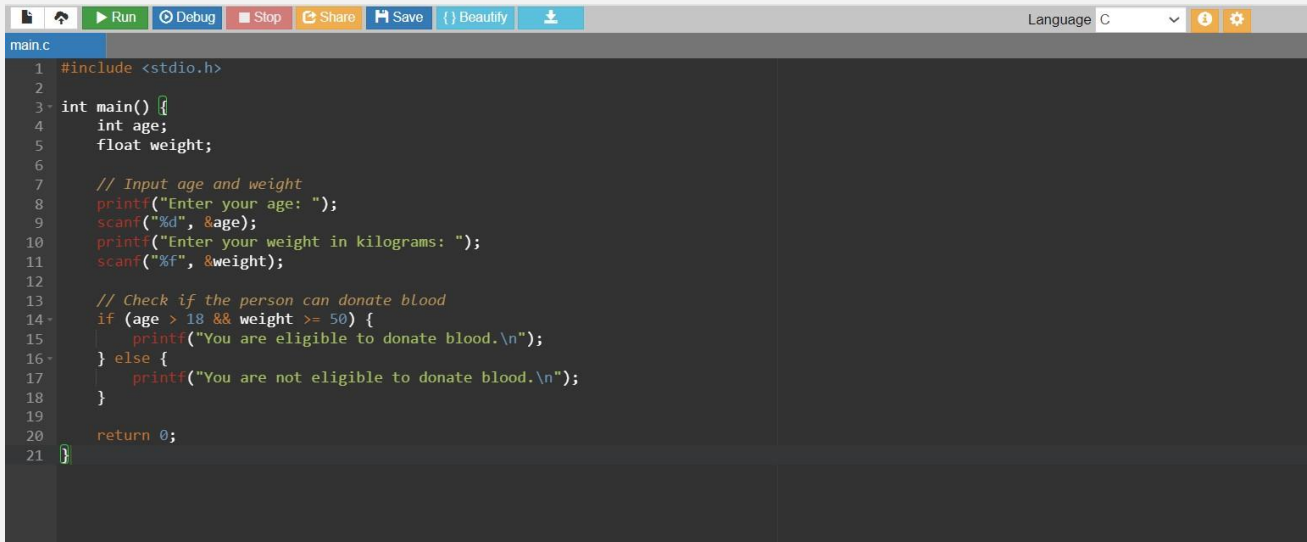
...Program finished with exit code 0
Press ENTER to exit console.
```

**Conclusion:** The programme has shown our expected values and we can call this programme a legit. All of the codes worked well and the programme is successful.

**Programme no:** 03

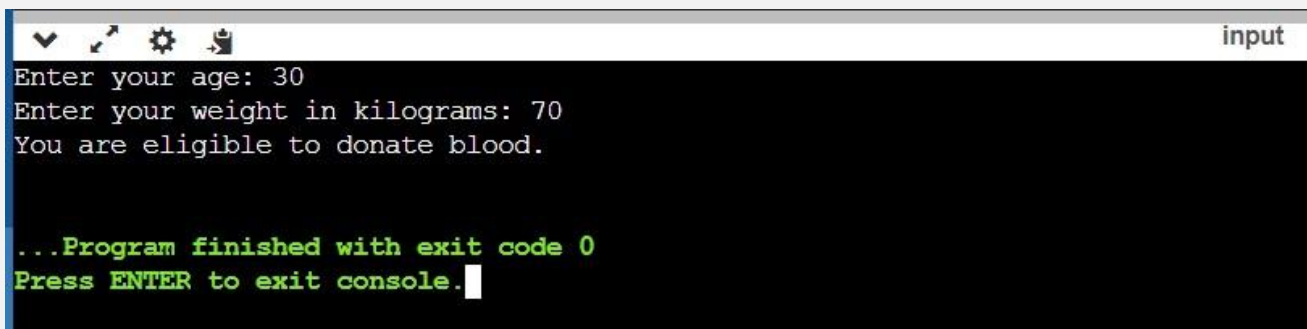
**Programme name:** Write a program in C that checks a person can donate blood or not. [Condition: If age is greater than 18 and weight is greater than or equal to 50years, He/ She can donate blood. ]

**Source code:** Here is the following source code of this programme:



```
1 #include <stdio.h>
2
3 int main() {
4     int age;
5     float weight;
6
7     // Input age and weight
8     printf("Enter your age: ");
9     scanf("%d", &age);
10    printf("Enter your weight in kilograms: ");
11    scanf("%f", &weight);
12
13    // Check if the person can donate blood
14    if (age > 18 && weight >= 50) {
15        printf("You are eligible to donate blood.\n");
16    } else {
17        printf("You are not eligible to donate blood.\n");
18    }
19
20    return 0;
21 }
```

**Input/Output:** Here is the input and output of the programme:



```
Enter your age: 30
Enter your weight in kilograms: 70
You are eligible to donate blood.

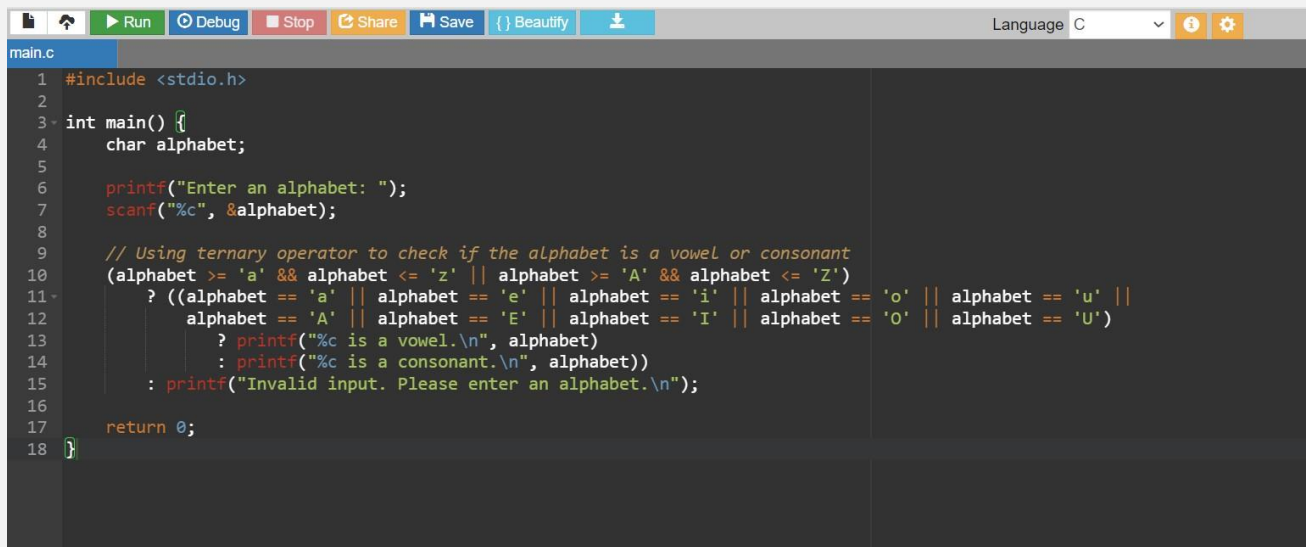
...Program finished with exit code 0
Press ENTER to exit console.
```

**Conclusion:** The programme has worked as expected and we can call this programme a legit. All of the codes worked well and the programme is successful.

**Programme no:** 04

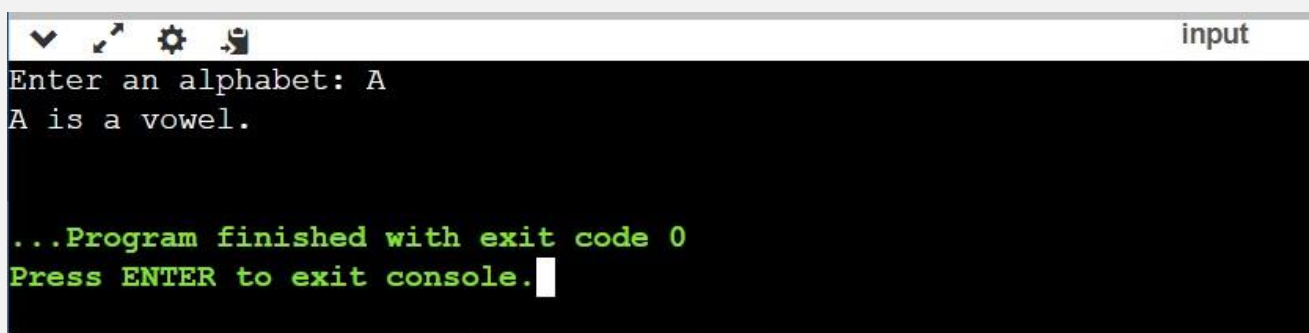
**Programme name:** Write a program in C that checks an alphabet is vowel or consonant using ternary operator.

**Source code:** Here is the following source code of this programme:



```
1 #include <stdio.h>
2
3 int main() {
4     char alphabet;
5
6     printf("Enter an alphabet: ");
7     scanf("%c", &alphabet);
8
9     // Using ternary operator to check if the alphabet is a vowel or consonant
10    (alphabet >= 'a' && alphabet <= 'z' || alphabet >= 'A' && alphabet <= 'Z')
11    ? ((alphabet == 'a' || alphabet == 'e' || alphabet == 'i' || alphabet == 'o' || alphabet == 'u' ||
12       alphabet == 'A' || alphabet == 'E' || alphabet == 'I' || alphabet == 'O' || alphabet == 'U')
13       ? printf("%c is a vowel.\n", alphabet)
14         : printf("%c is a consonant.\n", alphabet))
15    : printf("Invalid input. Please enter an alphabet.\n");
16
17    return 0;
18 }
```

[Input/Output:](#) Here is the input and output of the programme:



```
input
Enter an alphabet: A
A is a vowel.

...Program finished with exit code 0
Press ENTER to exit console.
```