🏫 C Programming Lab Report

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💼 Subject: Programming in C

🏫 Department: CSE-62

📅 Submission Date: 25-06-2025

1. Write a C program to read the value of an integer m and display the value of n is 1 when m is larger than 0, 0 when m is 0 and -1 when m is less than 0. (Use switch-case)

2. Write a C program to find the minimum between two numbers using a switch-case

3. Write a C program to check even or odd numbers using a switch-case.

4. Write a C program to check positive negative or zero using a switch-case.

5. Write a program in C to read any Month Number in an integer and display the number of days for this month using a switch-case.

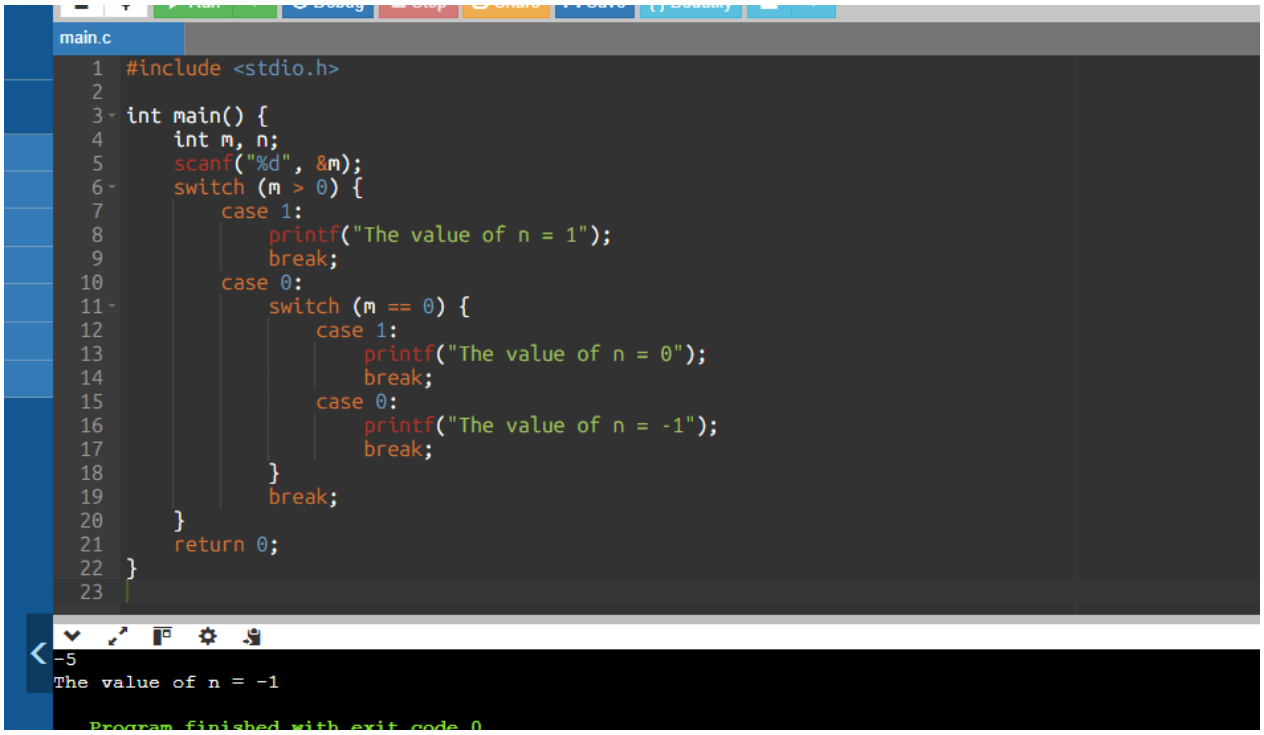
6. Write a C program to check whether an alphabet is a vowel or a consonant using a switch-case.

7. Write a C program to calculate profit and loss on a transaction using a switch-case.

8. Write a program in C to convert temperature from Fahrenheit to Celsius and Celsius to Fahrenheit using a switch-case.

1. Write a C program to read the value of an integer m and display the value of n is 1 when m is larger than 0, 0 when m is 0 and -1 when m is less than 0. (Use switch-case)

Code :

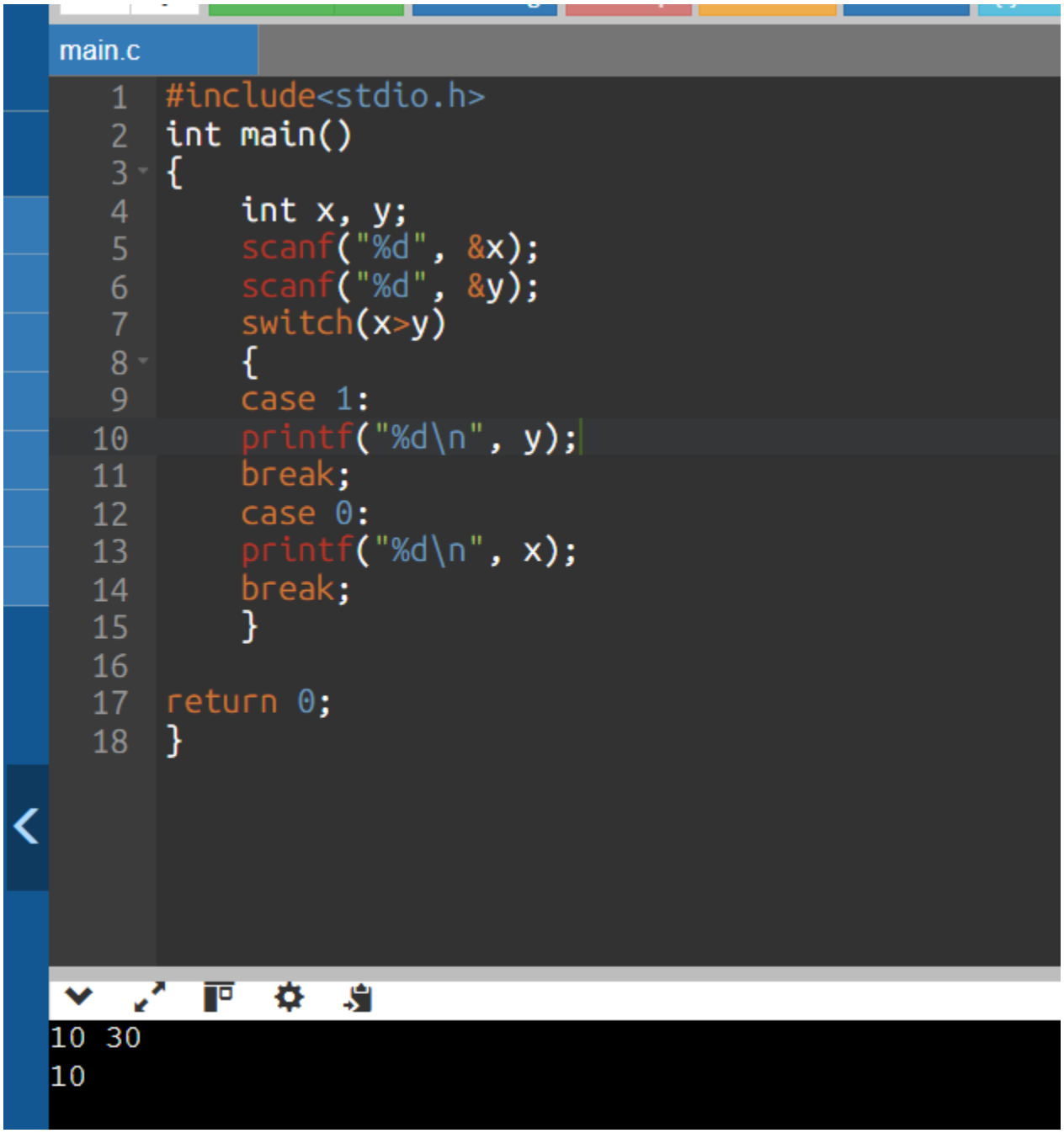


Input : -5

Output: -1

2. Write a C program to find the minimum between two numbers using a switch-case

Code:

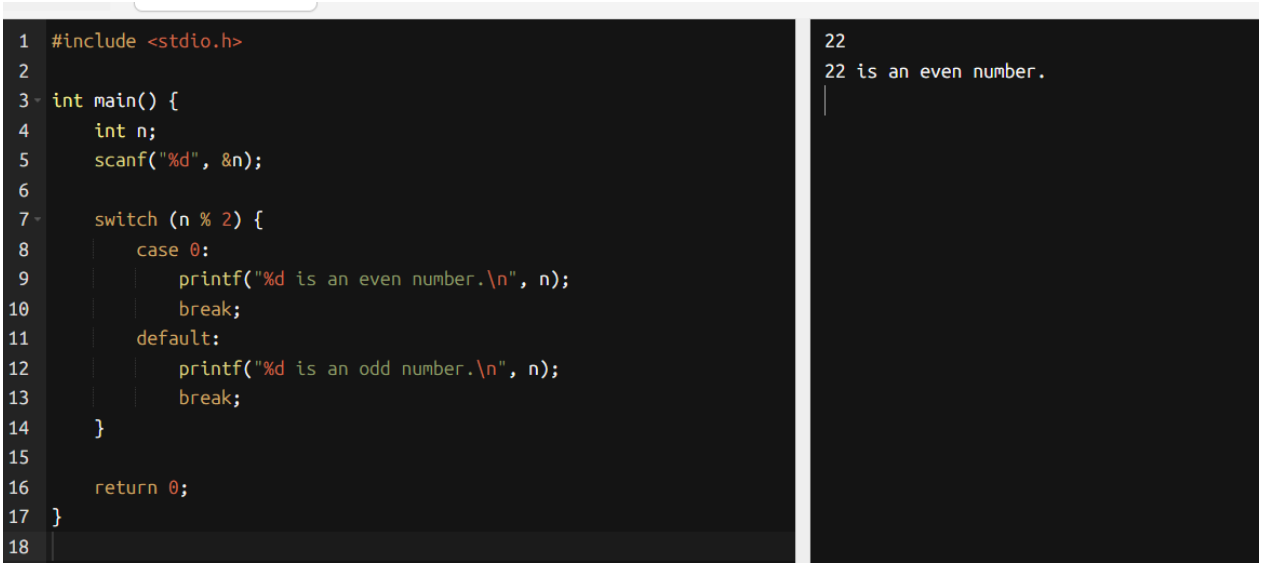


Input : 10 20

Output: 10

3. Write a C program to check even or odd numbers using a switch-case.

Code :



```c
#include <stdio.h>

int main() {
    int n;
    scanf("%d", &n);

    switch (n % 2) {
        case 0:
            printf("%d is an even number.\n", n);
            break;
        default:
            printf("%d is an odd number.\n", n);
            break;
    }

    return 0;
}
```

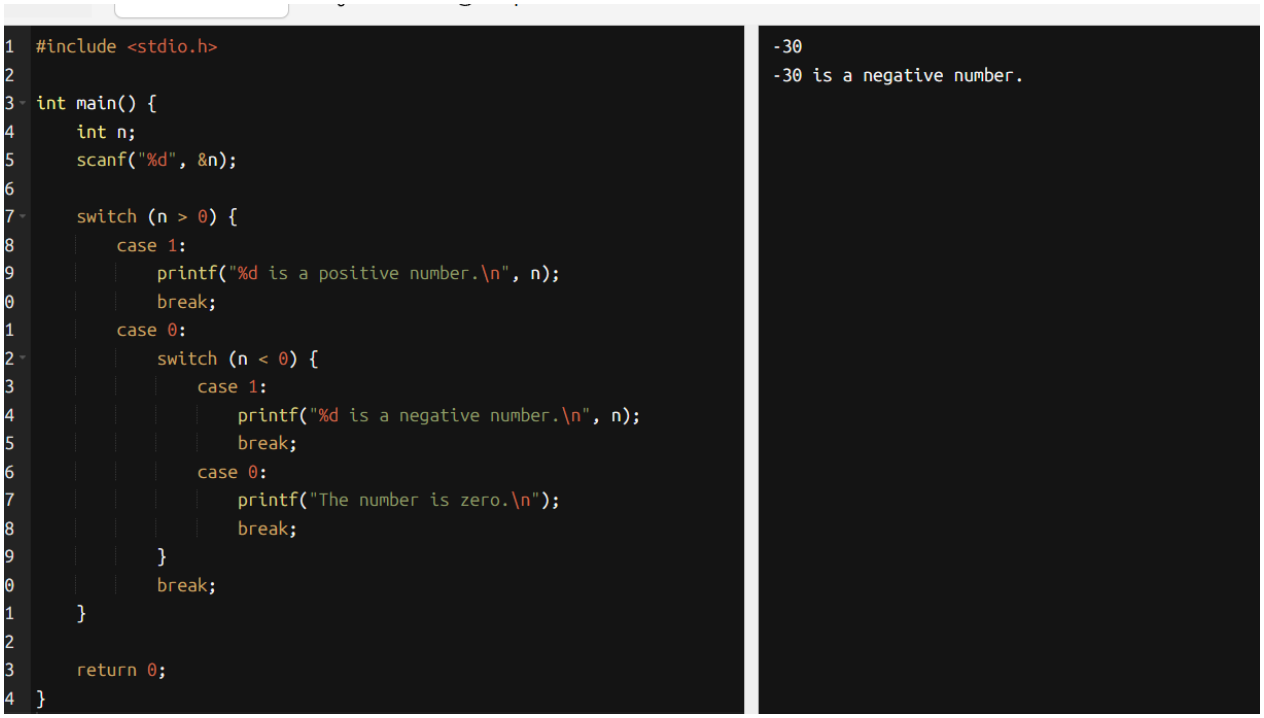
```
22
22 is an even number.
```

Input : 22

Output: 22 is an even number.

4. Write a C program to check positive negative or zero using a switch-case.

Code :



```c
#include <stdio.h>

int main() {
    int n;
    scanf("%d", &n);

    switch (n > 0) {
        case 1:
            printf("%d is a positive number.\n", n);
            break;
        case 0:
            switch (n < 0) {
                case 1:
                    printf("%d is a negative number.\n", n);
                    break;
                case 0:
                    printf("The number is zero.\n");
                    break;
            }
            break;
    }

    return 0;
}
```

```
-30
-30 is a negative number.
```

Input : -30

Output: -30 is a negative number.

5. Write a program in C to read any Month Number in an integer and display the number of days for this month using a switch-case.

Code:

```c
#include <stdio.h>

int main() {
    int month;
    printf("Enter month number (1-12): ");
    scanf("%d", &month);

    switch (month) {
        case 1: case 3: case 5: case 7:
        case 8: case 10: case 12:
            printf("There are 31 days in month %d.\n", month);
            break;

        case 4: case 6: case 9: case 11:
            printf("There are 30 days in month %d.\n", month);
            break;

        case 2:
            printf("There are 28 or 29 days in month %d.\n", month);
            break;

        default:
            printf("Invalid month number. Please enter between 1 and
                12.\n");
    }

    return 0;
}
```

```
Enter month number (1-12): 11
There are 30 days in month 11.
```

Input : Enter month number (1-12): 11

Output: There are 30 days in month 11.

6. Write a C program to check whether an alphabet is a vowel or a consonant using a switch-case.

Code:

```c
#include <stdio.h>

int main() {
    char ch;
    scanf("%c", &ch);

    switch (ch) {
        case 'A': case 'E': case 'I': case 'O': case 'U':
        case 'a': case 'e': case 'i': case 'o': case 'u':
            printf("%c is a vowel.\n", ch);
            break;

        default:
            printf("%c is a consonant.\n", ch);
    }

    return 0;
}
```

```
z
z is a consonant.
```

Input : z

Output: z is a consonant.

7. Write a C program to calculate profit and loss on a transaction using a switch-case.

Code:

```c
#include <stdio.h>

int main() {
    int buy, cell;
    printf("Enter buying price: ");
    scanf("%d", &buy);
    printf("Enter selling price: ");
    scanf("%d", &cell);

    switch (buy > cell) {
        case 1:
            printf("Loss amount: %d\n", buy - cell);
            break;
        case 0:
            switch (buy < cell) {
                case 1:
                    printf("Profit amount: %d\n", cell - buy);
                    break;
                case 0:
                    printf("No profit No loss.\n");
                    break;
            }
            break;
    }

    return 0;
}
```

```
Enter buying price: 200
Enter selling price: 22
Loss amount: 178
```

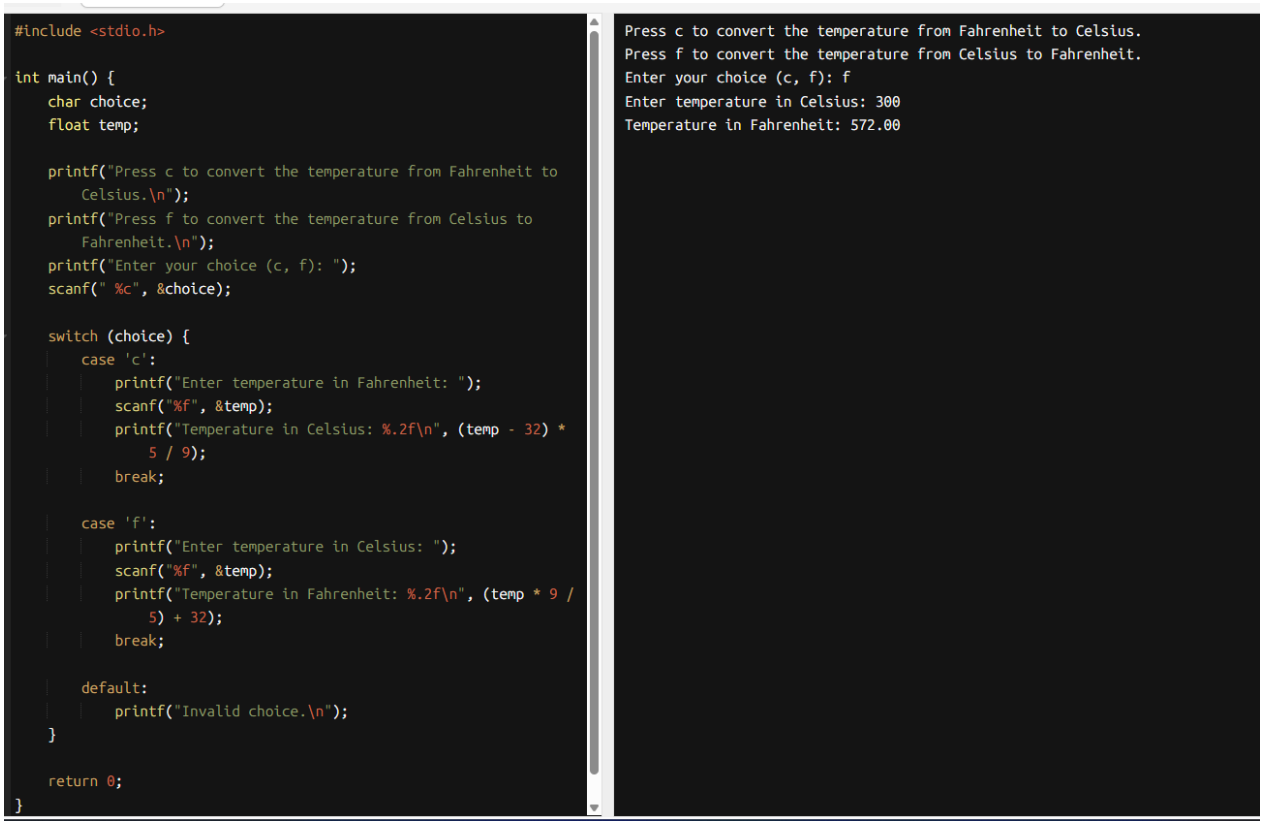
Enter buying price: 200

Enter selling price: 22

Loss amount: 178

8. Write a program in C to convert temperature from Fahrenheit to Celsius and Celsius to Fahrenheit using a switch-case.

COde :



```c
#include <stdio.h>

int main() {
    char choice;
    float temp;

    printf("Press c to convert the temperature from Fahrenheit to
        Celsius.\n");
    printf("Press f to convert the temperature from Celsius to
        Fahrenheit.\n");
    printf("Enter your choice (c, f): ");
    scanf(" %c", &choice);

    switch (choice) {
        case 'c':
            printf("Enter temperature in Fahrenheit: ");
            scanf("%f", &temp);
            printf("Temperature in Celsius: %.2f\n", (temp - 32) *
                5 / 9);
            break;

        case 'f':
            printf("Enter temperature in Celsius: ");
            scanf("%f", &temp);
            printf("Temperature in Fahrenheit: %.2f\n", (temp * 9 /
                5) + 32);
            break;

        default:
            printf("Invalid choice.\n");
    }

    return 0;
}
```

```
Press c to convert the temperature from Fahrenheit to Celsius.
Press f to convert the temperature from Celsius to Fahrenheit.
Enter your choice (c, f): f
Enter temperature in Celsius: 300
Temperature in Fahrenheit: 572.00
```

Press c to convert the temperature from Fahrenheit to Celsius.

Press f to convert the temperature from Celsius to Fahrenheit.

Enter your choice (c, f): f

Enter temperature in Celsius: 300

Temperature in Fahrenheit: 572.00