



C Programming Lab Report

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 Subject: Programming in C

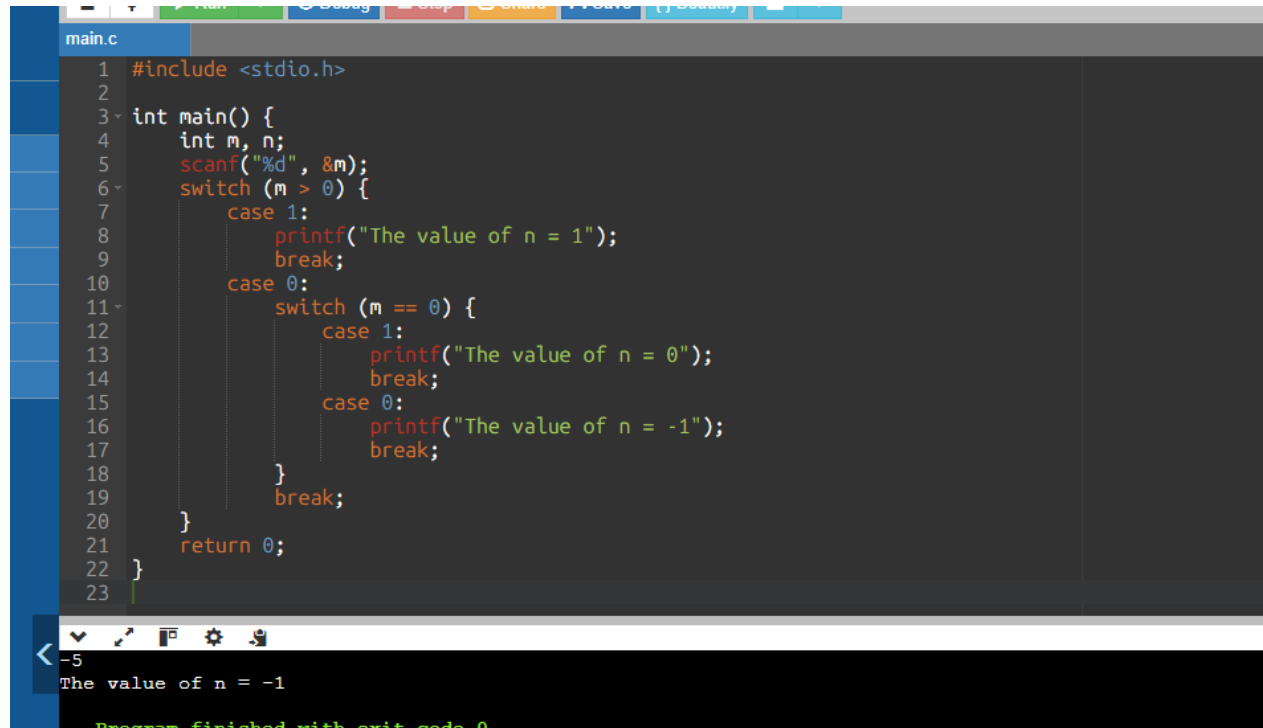
 Department: CSE-62

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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 :



```
main.c
1  #include <stdio.h>
2
3  int main() {
4      int m, n;
5      scanf("%d", &m);
6      switch (m > 0) {
7          case 1:
8              printf("The value of n = 1");
9              break;
10         case 0:
11             switch (m == 0) {
12                 case 1:
13                     printf("The value of n = 0");
14                     break;
15                 case 0:
16                     printf("The value of n = -1");
17                     break;
18             }
19             break;
20         }
21         return 0;
22     }
23
```

The screenshot shows a code editor with the above C code. Below the editor, a terminal window displays the input -5 and the output "The value of n = -1". A green message at the bottom states "Program finished with exit code 0".

Input : -5

Output: -1

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

Code:

```
main.c
1  #include<stdio.h>
2  int main()
3  {
4      int x, y;
5      scanf("%d", &x);
6      scanf("%d", &y);
7      switch(x>y)
8      {
9          case 1:
10         printf("%d\n", y);
11         break;
12         case 0:
13         printf("%d\n", x);
14         break;
15     }
16
17     return 0;
18 }
```

10 30
10

Input : 10 20

Output: 10

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

Code :

```
1  #include <stdio.h>
2
3  int main() {
4      int n;
5      scanf("%d", &n);
6
7      switch (n % 2) {
8          case 0:
9              printf("%d is an even number.\n", n);
10             break;
11         default:
12             printf("%d is an odd number.\n", n);
13             break;
14     }
15
16     return 0;
17 }
18
```

```
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 :

```
1 #include <stdio.h>
2
3 int main() {
4     int n;
5     scanf("%d", &n);
6
7     switch (n > 0) {
8         case 1:
9             printf("%d is a positive number.\n", n);
10            break;
11        case 0:
12            switch (n < 0) {
13                case 1:
14                    printf("%d is a negative number.\n", n);
15                    break;
16                case 0:
17                    printf("The number is zero.\n");
18                    break;
19            }
20            break;
21    }
22
23    return 0;
24 }
```

-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:

```

1 #include <stdio.h>
2
3 int main() {
4     int month;
5     printf("Enter month number (1-12): ");
6     scanf("%d", &month);
7
8     switch (month) {
9         case 1: case 3: case 5: case 7:
10        case 8: case 10: case 12:
11            printf("There are 31 days in month %d.\n", month);
12            break;
13
14        case 4: case 6: case 9: case 11:
15            printf("There are 30 days in month %d.\n", month);
16            break;
17
18        case 2:
19            printf("There are 28 or 29 days in month %d.\n", month);
20            break;
21
22        default:
23            printf("Invalid month number. Please enter between 1 and
24                12.\n");
25    }
26
27    return 0;
28 }

```

```

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:

```
1 #include <stdio.h>
2
3 int main() {
4     char ch;
5     scanf("%c", &ch);
6
7     switch (ch) {
8         case 'A': case 'E': case 'I': case 'O': case 'U':
9         case 'a': case 'e': case 'i': case 'o': case 'u':
10             printf("%c is a vowel.\n", ch);
11             break;
12
13         default:
14             printf("%c is a consonant.\n", ch);
15     }
16
17     return 0;
18 }
```

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:

```

1 #include <stdio.h>
2
3 int main() {
4     int buy, cell;
5     printf("Enter buying price: ");
6     scanf("%d", &buy);
7     printf("Enter selling price: ");
8     scanf("%d", &cell);
9
10    switch (buy > cell) {
11        case 1:
12            printf("Loss amount: %d\n", buy - cell);
13            break;
14        case 0:
15            switch (buy < cell) {
16                case 1:
17                    printf("Profit amount: %d\n", cell - buy);
18                    break;
19                case 0:
20                    printf("No profit No loss.\n");
21                    break;
22            }
23            break;
24    }
25
26    return 0;
27 }

```

```

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 :


```

#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