

1. C Program to check whether the input is a character, digit or a special character.

```
#include <stdio.h>

void main()
{
    char ch;
    printf("Enter any character: ");
    scanf("%c", &ch);
    if((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))
        printf("%c is ALPHABET.\n", ch);
    else if(ch >= '0' && ch <= '9')
        printf("%c is DIGIT.\n", ch);
    else
        printf("%c is SPECIAL CHARACTER.\n", ch);
}
```

Try it yourself 1a: Write a C program to check whether an input alphabet is a vowel or a consonant (assume that the input is an English letter).

2. C program to check whether an input is an odd number or an even number using switch-case

```
#include <stdio.h>

void main()
{
    int num;

    printf("Enter any number to check even or odd: ");
    scanf("%d", &num);

    switch(num % 2)
    {
        //If n%2 == 0
        case 0: printf("Number is Even");
                break;
        //Else if n%2 != 0
        case 1: printf("Number is Odd");
                break;
    }
}
```

Try it yourself 2: Write a C program to check whether an input alphabet is a vowel or a consonant using switch case (assume that the input is an English letter).

EXERCISE:

1. Write a C program that takes input the first letter of any of the following fruits name—
Mango ---- Tk.500/kg,
Apple ---- Tk.250/kg,
Banana ----Tk. 130/kg,
Cherry -----Tk. 270/kg, and suggests the price of the fruit as output, using switch case.
2. Find the maximum between two numbers using switch case.
3. Use switch case to make a simple calculator that can add, subtract, multiply or divide two input numbers. The operator (+, -, *, or /) should also be read from user.

Sample Input/Output:

Enter two numbers: 4.5 2.9

Enter operator: +

4.5 + 2.9 = 7.4

Assignment:

1. Write a C program to check whether a year is a leap year or not, using switch case.
2. Farhan must pay a bill to a shopkeeper. The shopkeeper doesn't have any change, so Farhan must have all the notes required to pay the bill. Write a C program that reads the bill and the number of each type of note (500, 100, 50, 20, 10, 5, 2, 1) from user and then output whether it is possible for Farhan to pay the bill or not. If it is possible, then also output the number of each notes required to pay the bill.

Tentative Input/Output (bold ones are user inputs):

Enter amount: **1175**

Enter number of notes:

500: **1**

100: **7**

50: **1**

20: 0

10: 5

5: **1**

2: **0**

1: **0**

Farhan can pay the bill by using the following counts of different notes:

500: 1

100: 6

50: 1

20: 0

10: 2

5: 1

2: 0

1: 0