

Bangladesh University of Business & Technology (BUBT)



Course Title : Structured Programming Language

Course Code : CSE 101

Experiment No : 01

Experiment Name : C language

Submitted by

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Intake :56

Section :9

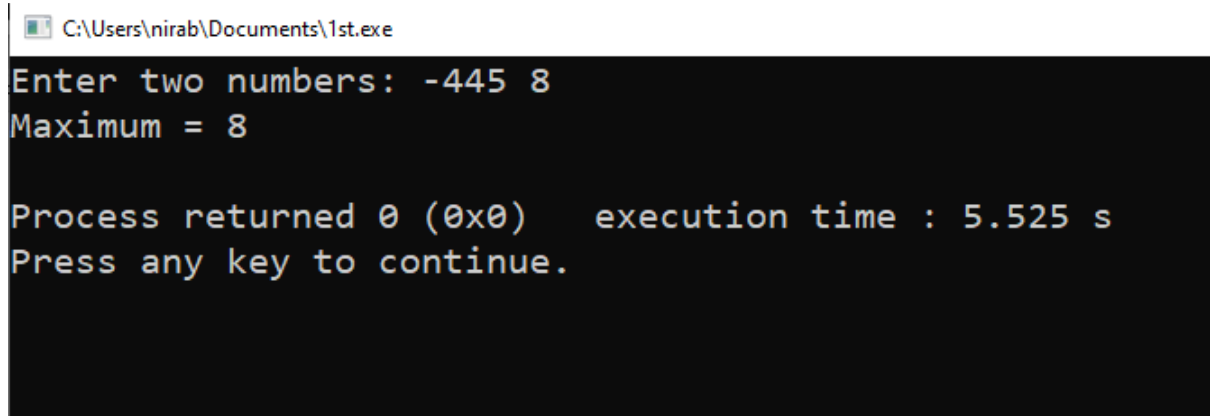
Question 1: C program to find the maximum between two numbers.

```
#include <stdio.h>

int main() {
    int num1, num2;

    printf("Enter two numbers: ");
    scanf("%d %d", &num1, &num2);
    if (num1 > num2)
        printf("Maximum = %d\n", num1);
    else if (num2 > num1)
        printf("Maximum = %d\n", num2);
    else
        printf("Both numbers are equal.\n");
    return 0;
}
```

Output:



```
C:\Users\nirab\Documents\1st.exe
Enter two numbers: -445 8
Maximum = 8

Process returned 0 (0x0)   execution time : 5.525 s
Press any key to continue.
```

Question 2: C program to find maximum between three numbers.

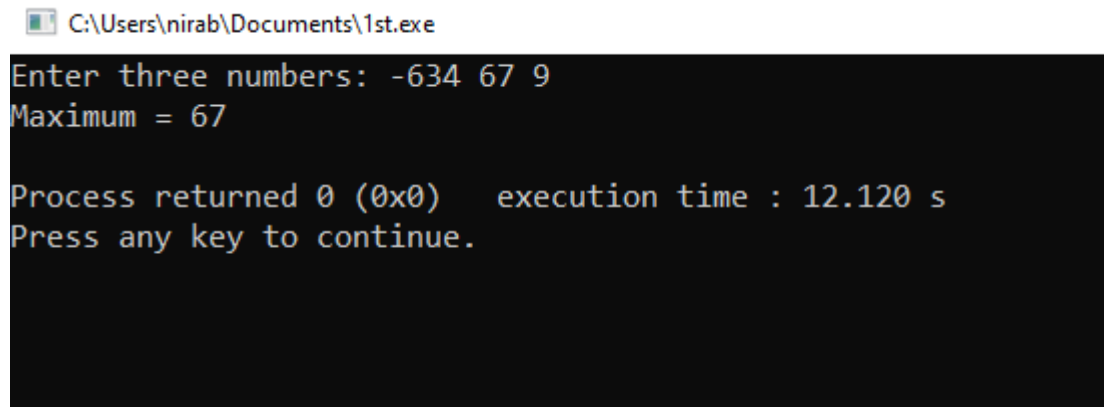
```
#include <stdio.h>

int main() {
    int num1, num2, num3;
    printf("Enter three numbers: ");
    scanf("%d %d %d", &num1, &num2, &num3);

    if (num1 >= num2 && num1 >= num3)
        printf("Maximum = %d\n", num1);
    else if (num2 >= num1 && num2 >= num3)
        printf("Maximum = %d\n", num2);
    else
        printf("Maximum = %d\n", num3);

    return 0;
}
```

Output:



```
C:\Users\nirab\Documents\1st.exe
Enter three numbers: -634 67 9
Maximum = 67

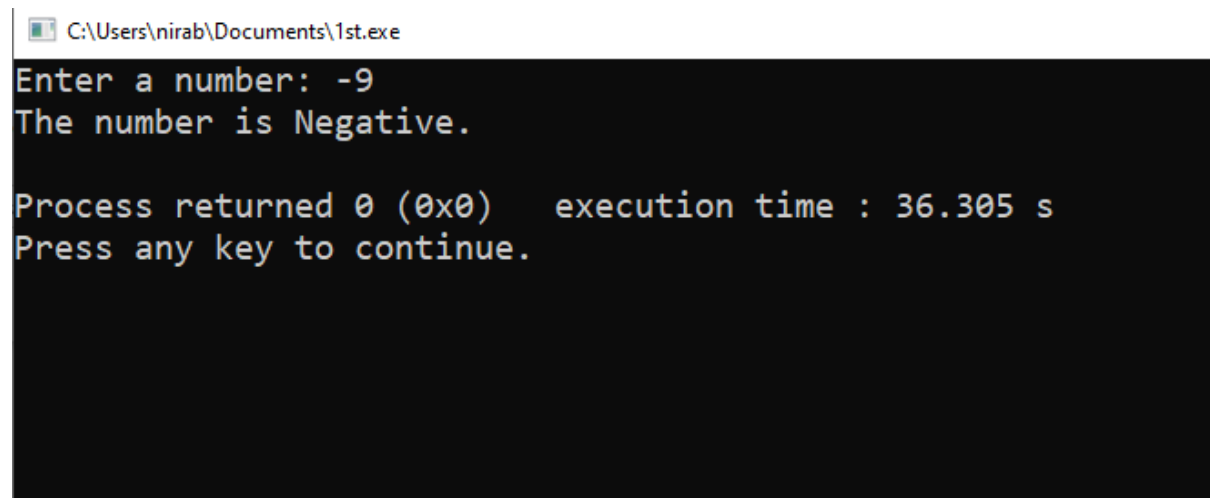
Process returned 0 (0x0)   execution time : 12.120 s
Press any key to continue.
```

Question 3 : C program to check whether a number is positive, negative or zero.

```
#include <stdio.h>

int main() {
    int num;
    printf("Enter a number: ");
    scanf("%d", &num);
    if (num > 0)
        printf("The number is Positive.\n");
    else if (num < 0)
        printf("The number is Negative.\n");
    else
        printf("The number is Zero.\n");
    return 0;}
```

Output:



```
C:\Users\nirab\Documents\1st.exe
Enter a number: -9
The number is Negative.

Process returned 0 (0x0)   execution time : 36.305 s
Press any key to continue.
```

Question 4: C program to check whether a number is divisible by 5 and 11 or not.

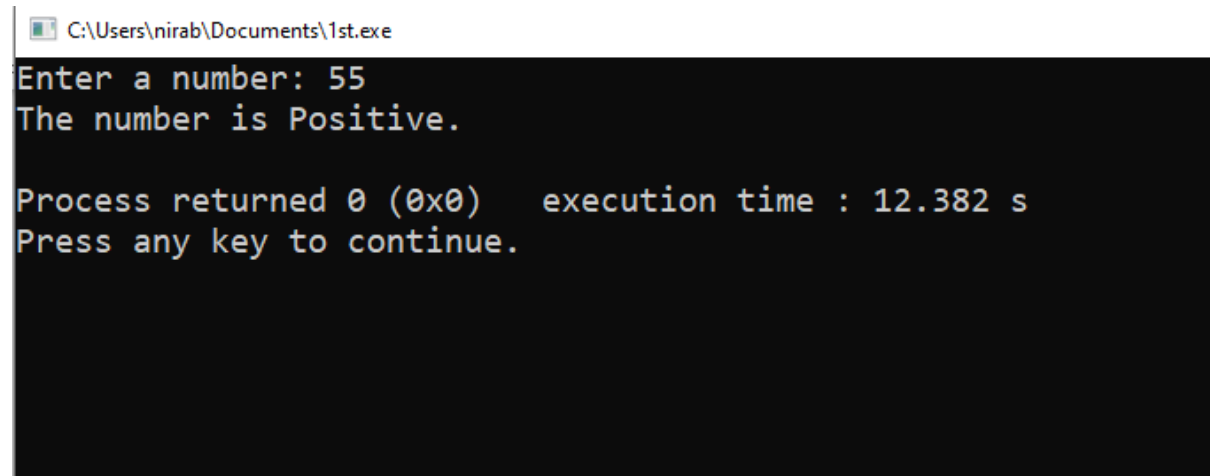
```
#include <stdio.h>

int main() {
    int num;

    printf("Enter a number: ");
    scanf("%d", &num);

    if (num % 5 == 0 && num % 11 == 0)
        printf("The number is divisible by both 5 and 11.\n");
    else
        printf("The number is not divisible by both 5 and 11.\n")
    return 0;
}
```

Output:



```
C:\Users\nirab\Documents\1st.exe
Enter a number: 55
The number is Positive.

Process returned 0 (0x0)   execution time : 12.382 s
Press any key to continue.
```

Question 5: C program check whether a number is even or odd.

```
#include <stdio.h>

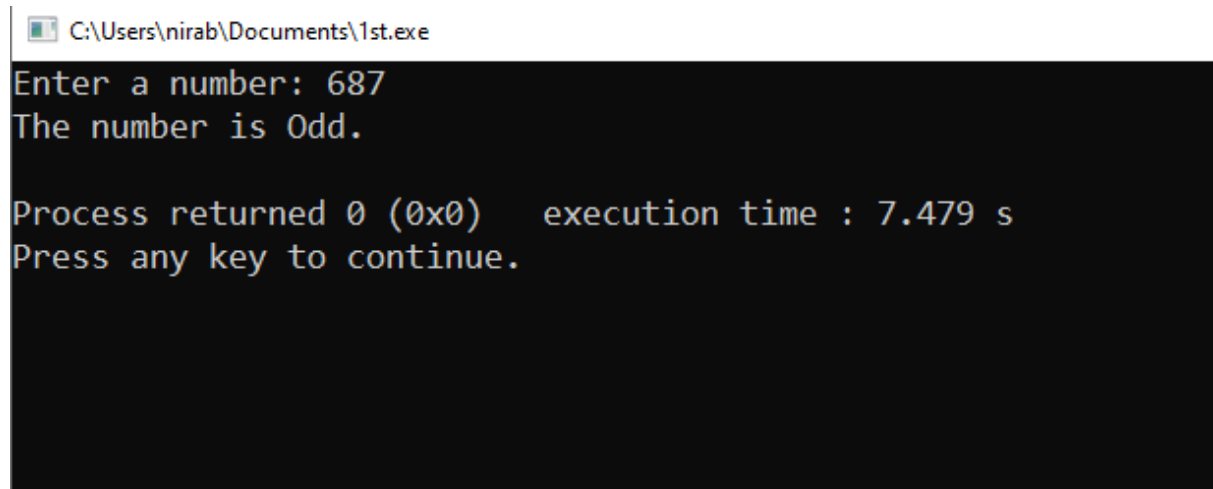
int main() {
    int num;

    printf("Enter a number: ");
    scanf("%d", &num);

    if (num % 2 == 0)
        printf("The number is Even.\n");
    else
        printf("The number is Odd.\n");

    return 0;
}
```

Output:



```
C:\Users\nirab\Documents\1st.exe
Enter a number: 687
The number is Odd.

Process returned 0 (0x0)   execution time : 7.479 s
Press any key to continue.
```

Question 6: C program to check Leap Year.

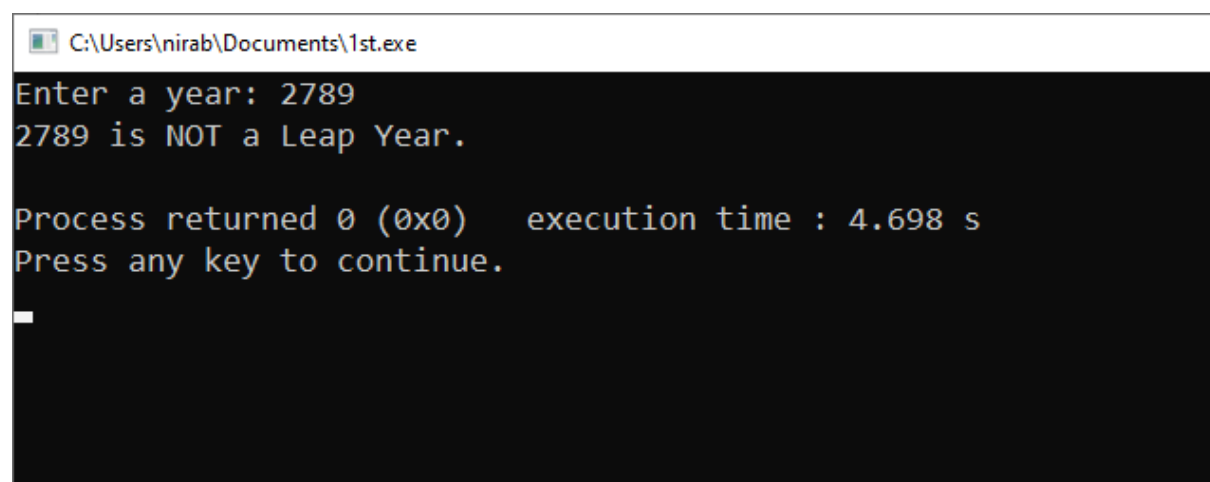
```
#include <stdio.h>

int main() {
    int year;

    printf("Enter a year: ");
    scanf("%d", &year);

    if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0))
        printf("%d is a Leap Year.\n", year);
    else
        printf("%d is NOT a Leap Year.\n", year);
    return 0;
}
```

Output:



The screenshot shows a Windows command prompt window with the title bar "C:\Users\nirab\Documents\1st.exe". The prompt displays the following text:

```
Enter a year: 2789
2789 is NOT a Leap Year.

Process returned 0 (0x0)   execution time : 4.698 s
Press any key to continue.
```

A white cursor is visible on the line following "Press any key to continue."

Question 7: C program to check whether a character is alphabet or not.

```
#include <stdio.h>

int main() {
    char ch;

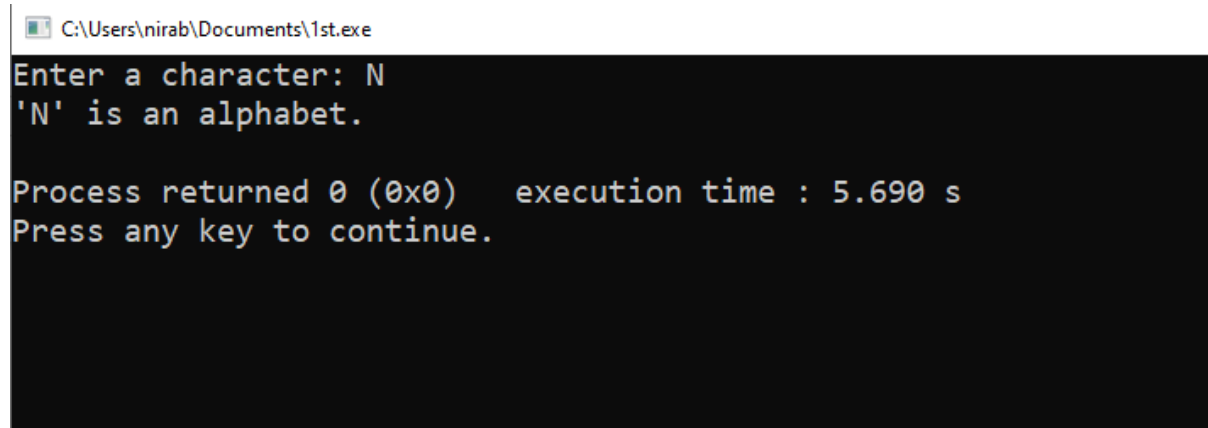
    printf("Enter a character: ");

    scanf("%c", &ch);

    if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))
        printf("%c' is an alphabet.\n", ch);
    else
        printf("%c' is NOT an alphabet.\n", ch);

    return 0;
}
```

Output:



```
C:\Users\nirab\Documents\1st.exe
Enter a character: N
'N' is an alphabet.

Process returned 0 (0x0)   execution time : 5.690 s
Press any key to continue.
```


Question 8: C program to check vowel or consonant .

```
#include <stdio.h>

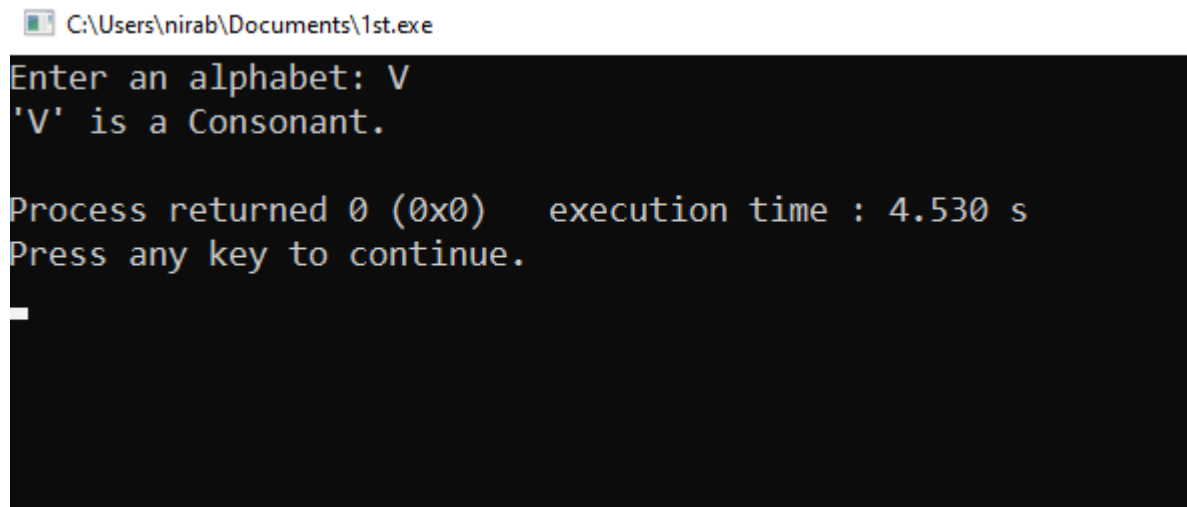
int main() {
    char ch;

    printf("Enter an alphabet: ");
    scanf("%c", &ch);

    // Check if it's an alphabet first
    if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {
        // Check for vowels
        if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u' ||
            ch == 'A' || ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U')
            printf("%c' is a Vowel.\n", ch);
        else
            printf("%c' is a Consonant.\n", ch);
    } else {
        printf("%c' is NOT an alphabet.\n", ch);
    }

    return 0;
}
```

Output:



```
C:\Users\nirab\Documents\1st.exe
Enter an alphabet: V
'V' is a Consonant.

Process returned 0 (0x0)   execution time : 4.530 s
Press any key to continue.

```

Question 9 : C program to check whether a character is alphabet, digit or special character.

```
#include <stdio.h>
```

```
int main() {
```

```
    char ch;
```

```
    printf("Enter any character: ");
```

```
    scanf("%c", &ch);
```

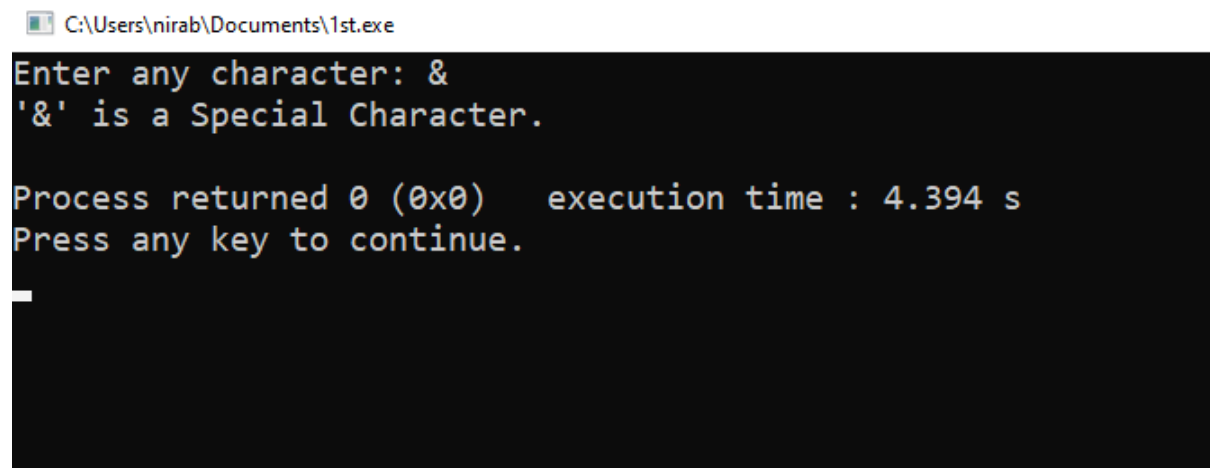
```
    if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))
```

```
        printf("%c is an Alphabet.\n", ch);
```

```
    else if (ch >= '0' && ch <= '9')
```

```
printf("%c' is a Digit.\n", ch);  
  
else  
  
    printf("%c' is a Special Character.\n", ch);  
  
return 0;  
}
```

Output:



```
C:\Users\nirab\Documents\1st.exe  
Enter any character: &  
'&' is a Special Character.  
  
Process returned 0 (0x0)   execution time : 4.394 s  
Press any key to continue.  
_
```

Question 10: C program to check whether a character is Uppercase or Lowercase.

```
#include <stdio.h>
```

```
int main(){
```

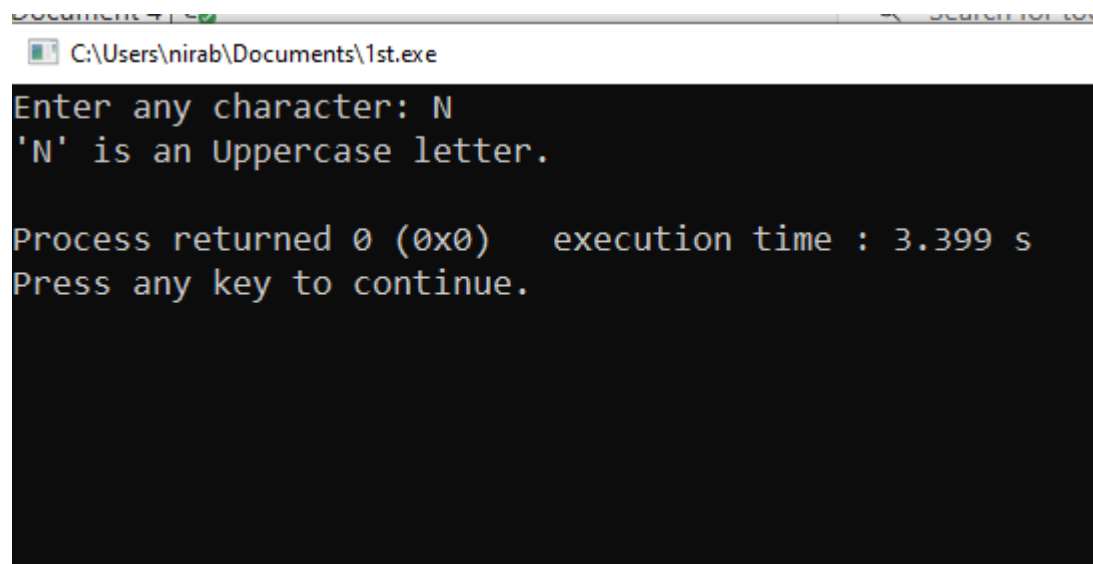
```
    char ch;
```

```
    printf("Enter any character: ");
```

```
    scanf("%c", &ch);
```

```
if (ch >= 'A' && ch <= 'Z')  
    printf("%c' is an Uppercase letter.\n", ch);  
else if (ch >= 'a' && ch <= 'z')  
    printf("%c' is a Lowercase letter.\n", ch);  
else  
    printf("%c' is not an alphabet.\n", ch);  
  
return 0;  
}
```

Output:



```
Document 1 - 100%  
C:\Users\nirab\Documents\1st.exe  
Enter any character: N  
'N' is an Uppercase letter.  
Process returned 0 (0x0)   execution time : 3.399 s  
Press any key to continue.
```