

**Problem Name: C program to find maximum between two numbers.**

**Source Code:**

```
#include <stdio.h>


int main(){
    int num1, num2, max;

    printf("Enter two numbers: ");
    scanf("%d%d", &num1, &num2);

    if(num1 > num2){
        max = num1;
    }
    else{
        max = num2;
    }

    printf("%d is maximum.", max);
    return 0;
}
```

**Output:**

 "C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"

```
Enter two numbers: 30
37
37 is maximum.
Process returned 0 (0x0)   execution time : 8.018 s
Press any key to continue.
```

## **Problem Name: C program to find maximum between three numbers.**

### **Source Code:**

```
#include <stdio.h>


int main() {
    int num1, num2, num3, max;

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

    if (num1 > num2 && num1 > num3) {
        max = num1;
    } else if (num2 > num3) {
        max = num2;
    } else {
        max = num3;
    }

    printf("Maximum among the three numbers = %d\n", max);
    return 0;
}
```

### **Output:**

 "C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"

```
Enter three numbers: 67
9
16
Maximum among the three numbers = 67

Process returned 0 (0x0)   execution time : 7.683 s
Press any key to continue.
_
```

**Problem Name:** C program to check whether a number is positive, negative or zero.

**Source Code:**

```
#include <stdio.h>

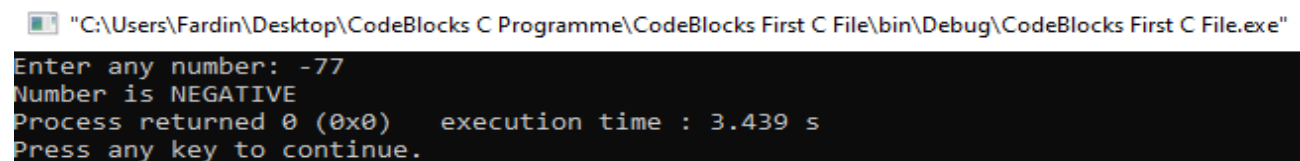
int main() {
    int num;

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

    if (num > 0) {
        printf("Number is POSITIVE");
    } else if (num < 0) {
        printf("Number is NEGATIVE");
    } else {
        printf("Number is ZERO");
    }

    return 0;
}
```

**Output:**



```
"C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"
Enter any number: -77
Number is NEGATIVE
Process returned 0 (0x0)   execution time : 3.439 s
Press any key to continue.
```

**Problem Name:** C program to check whether a number is divisible by 5 and 11 or not.

**Source Code:**

```
#include <stdio.h>

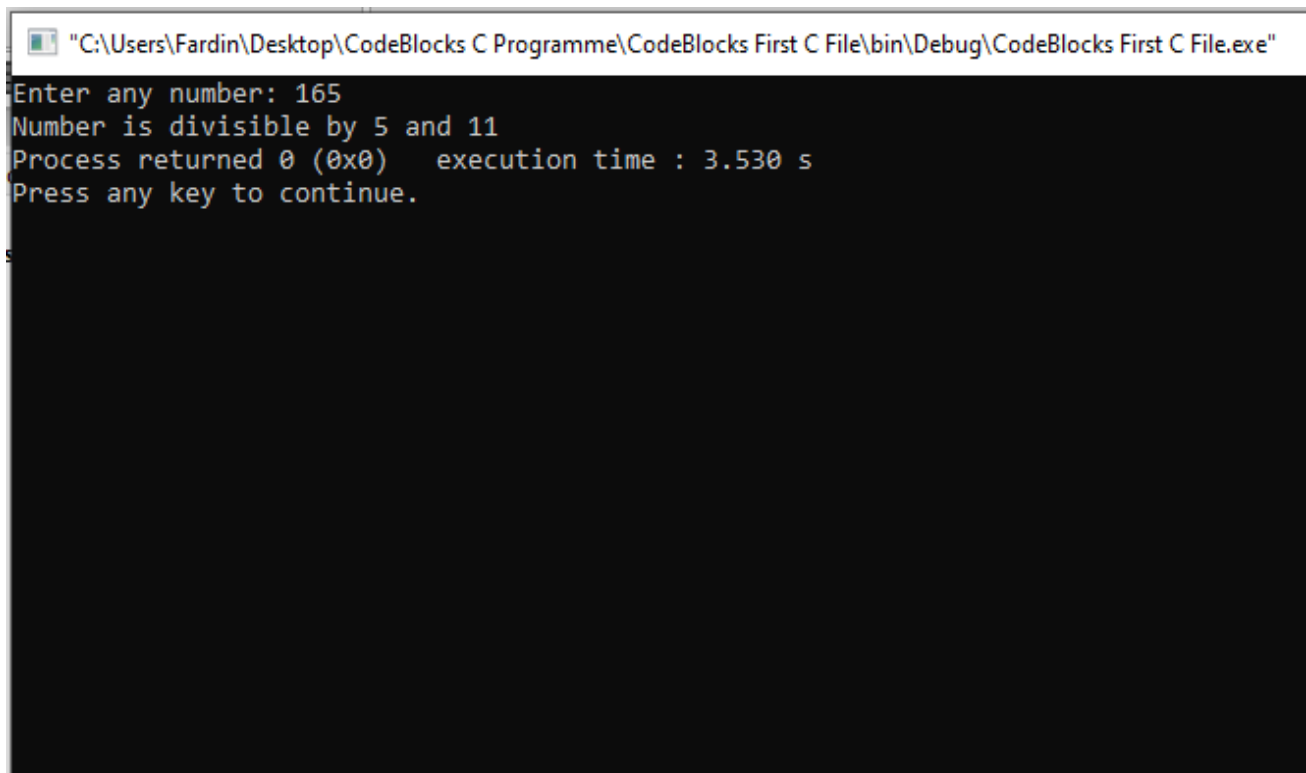
int main() {
    int num;

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

    if (num % 5 == 0 && num % 11 == 0) {
        printf("Number is divisible by 5 and 11");
    } else {
        printf("Number is not divisible by 5 and 11");
    }

    return 0;
}
```

**Output:**



```
"C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"
Enter any number: 165
Number is divisible by 5 and 11
Process returned 0 (0x0) execution time : 3.530 s
Press any key to continue.
```

**Problem Name:** C program check whether a number is even or odd.

**Source Code:**

```
#include <stdio.h>


int main() {
    int num;

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

    if (num % 2 == 0) {
        printf("Number is Even.");
    } else {
        printf("Number is Odd.");
    }

    return 0;
}
```

**Output:**

 "C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"

```
Enter any number to check even or odd: 7
Number is Odd.
Process returned 0 (0x0)   execution time : 4.542 s
Press any key to continue.
```

**Problem Name:** C program to check Leap Year.

**Source Code:**

```
#include <stdio.h>

int main() {
    int year;


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

    if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)) {
        printf("LEAP YEAR");
    } else {
        printf("COMMON YEAR");
    }

    return 0;
}
```

**Output:**

---

 "C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"

```
Enter year: 1704
LEAP YEAR
Process returned 0 (0x0)   execution time : 4.330 s
Press any key to continue.
```

**Problem Name: C program to check whether a character is alphabet or not.**

**Source Code:**

```
#include <stdio.h>

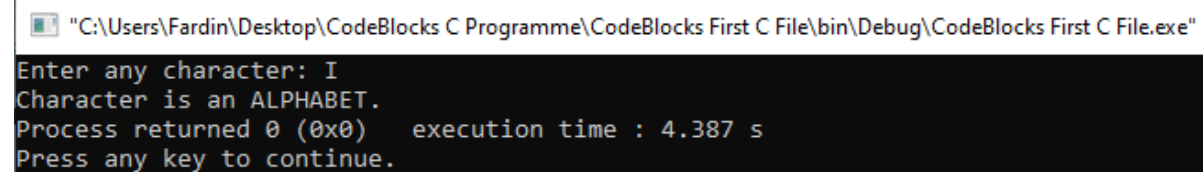
int main() {
    char ch;

    printf("Enter any character: ");
    scanf("%c", &ch);

    if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {
        printf("Character is an ALPHABET.");
    } else {
        printf("Character is NOT ALPHABET.");
    }

    return 0;
}
```

**Output:**



```
"C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"
Enter any character: I
Character is an ALPHABET.
Process returned 0 (0x0)   execution time : 4.387 s
Press any key to continue.
```

## **Problem Name: C program to check vowel or consonant.**

### **Source Code:**

```
#include <stdio.h>

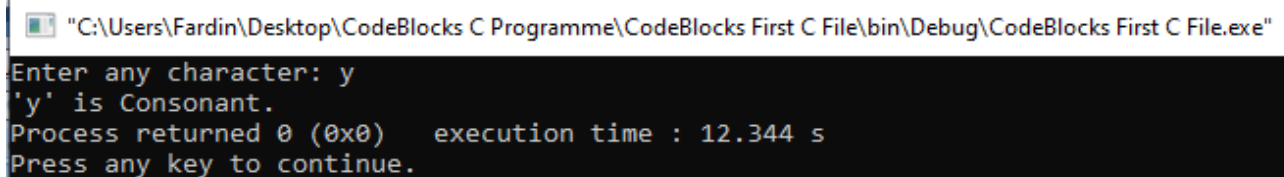
int main() {
    char ch;

    printf("Enter any character: ");
    scanf("%c", &ch);

    if (ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u' ||
        ch=='A' || ch=='E' || ch=='I' || ch=='O' || ch=='U') {
        printf("%c is Vowel.", ch);
    } else if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {
        printf("%c is Consonant.", ch);
    } else {
        printf("%c is not an alphabet.", ch);
    }

    return 0;
}
```

### **Output:**



```
"C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"
Enter any character: y
'y' is Consonant.
Process returned 0 (0x0)   execution time : 12.344 s
Press any key to continue.
```



**Problem Name: C program to check whether a character is alphabet, digit or special character.**

**Source Code:**

```
#include <stdio.h>

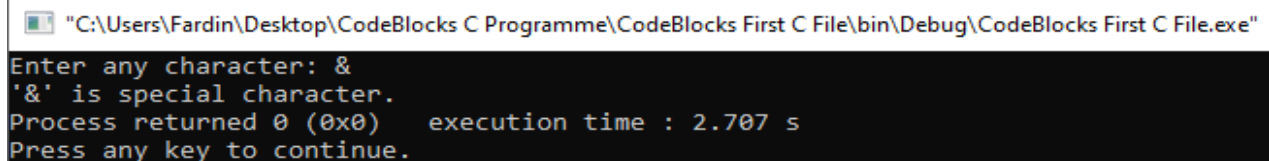
int main() {
    char ch;

    printf("Enter any character: ");
    scanf("%c", &ch);

    if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {
        printf("'"%c" is alphabet.", ch);
    } else if (ch >= '0' && ch <= '9') {
        printf("'"%c" is digit.", ch);
    } else {
        printf("'"%c" is special character.", ch);
    }

    return 0;
}
```

**Output:**



```
"C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"
Enter any character: &
'&' is special character.
Process returned 0 (0x0)   execution time : 2.707 s
Press any key to continue.
```

**Problem Name: C program to check whether a character is Uppercase or Lowercase.**

**Source Code:**

```
#include <stdio.h>

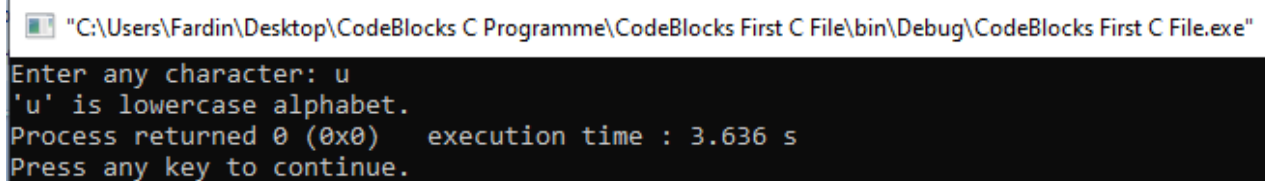
int main() {
    char ch;

    printf("Enter any character: ");
    scanf("%c", &ch);

    if (ch >= 'A' && ch <= 'Z') {
        printf("'"ch"' is uppercase alphabet.", ch);
    } else if (ch >= 'a' && ch <= 'z') {
        printf("'"ch"' is lowercase alphabet.", ch);
    } else {
        printf("'"ch"' is not an alphabet.", ch);
    }

    return 0;
}
```

**Output:**



```
"C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"
Enter any character: u
'u' is lowercase alphabet.
Process returned 0 (0x0)   execution time : 3.636 s
Press any key to continue.
_
```

**Problem Name: C program to enter week number and print day of week.**

**Source Code:**

```
#include <stdio.h>

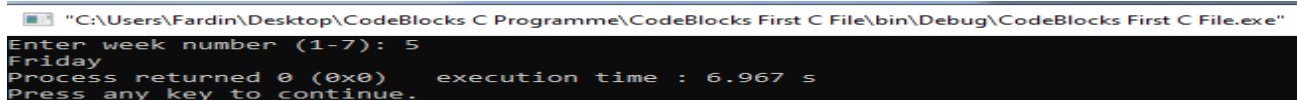
int main() {
    int week;

    printf("Enter week number (1-7): ");
    scanf("%d", &week);

    if (week == 1) {
        printf("Monday");
    } else if (week == 2) {
        printf("Tuesday");
    } else if (week == 3) {
        printf("Wednesday");
    } else if (week == 4) {
        printf("Thursday");
    } else if (week == 5) {
        printf("Friday");
    } else if (week == 6) {
        printf("Saturday");
    } else if (week == 7) {
        printf("Sunday");
    } else {
        printf("Invalid Input! Please enter week number between 1-7.");
    }

    return 0;
}
```

**Output:**



```
"C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"
Enter week number (1-7): 5
Friday
Process returned 0 (0x0)   execution time : 6.967 s
Press any key to continue.
```

## **Problem Name: C program to find number of days in month.**

### **Source Code:**

```
#include <stdio.h>

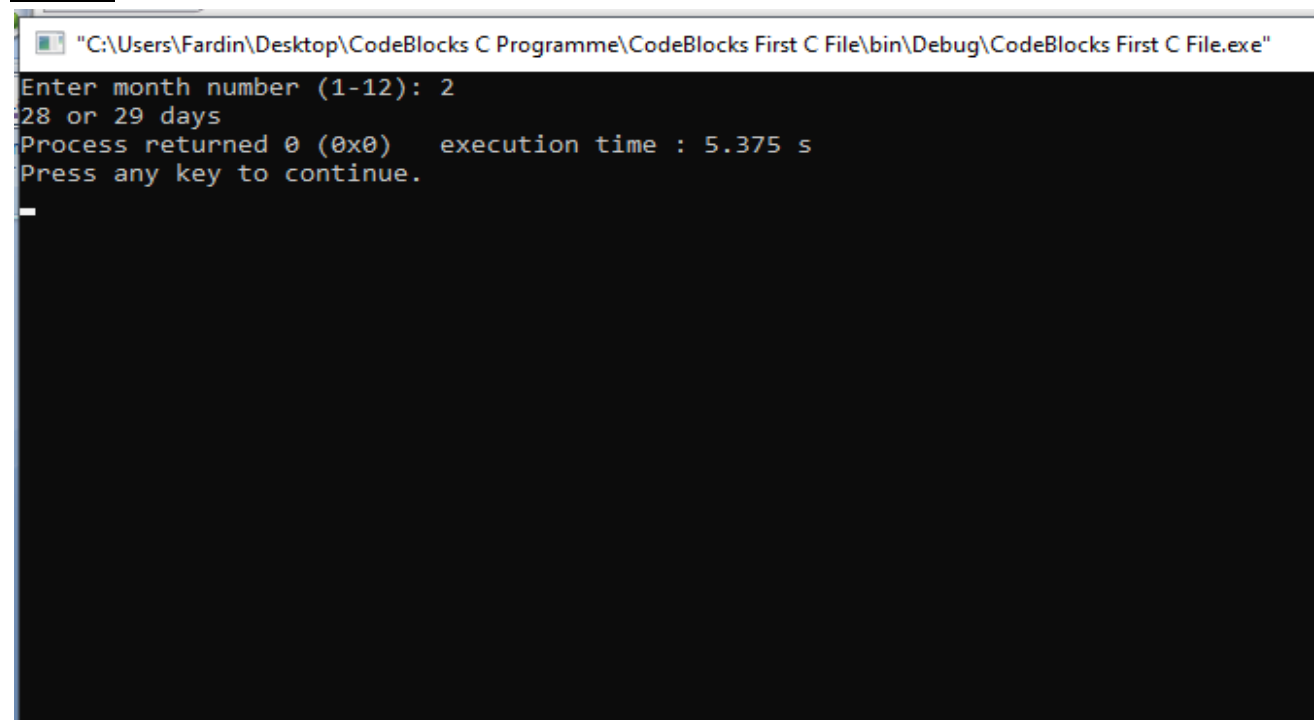
int main() {
    int month;

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

    if (month == 1 || month == 3 || month == 5 || month == 7 ||
        month == 8 || month == 10 || month == 12) {
        printf("31 days");
    } else if (month == 4 || month == 6 || month == 9 || month == 11) {
        printf("30 days");
    } else if (month == 2) {
        printf("28 or 29 days");
    } else {
        printf("Invalid input! Please enter month number between 1-12.");
    }

    return 0;
}
```

### **Output:**



```
"C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"
Enter month number (1-12): 2
28 or 29 days
Process returned 0 (0x0)   execution time : 5.375 s
Press any key to continue.
_
```

## **Problem Name: C program to find all roots of a quadratic equation.**

### **Source Code:**

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

int main() {
    float a, b, c;
    float root1, root2, imaginary;
    float discriminant;

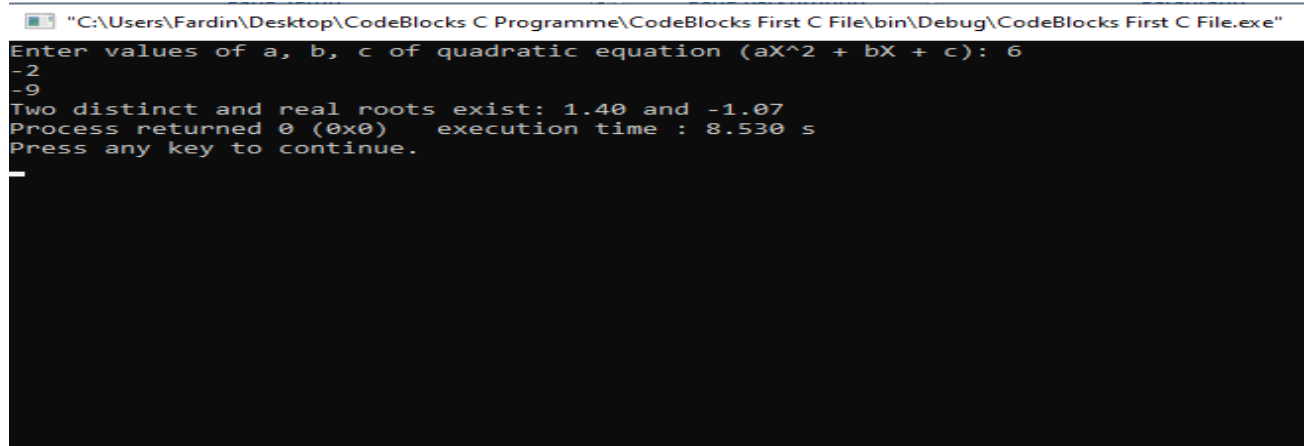
    printf("Enter values of a, b, c of quadratic equation (aX^2 + bX + c): ");
    scanf("%f %f %f", &a, &b, &c);

    discriminant = (b * b) - (4 * a * c);

    if (discriminant > 0) {
        root1 = (-b + sqrt(discriminant)) / (2 * a);
        root2 = (-b - sqrt(discriminant)) / (2 * a);
        printf("Two distinct and real roots exist: %.2f and %.2f", root1, root2);
    } else if (discriminant == 0) {
        root1 = root2 = -b / (2 * a);
        printf("Two equal and real roots exist: %.2f and %.2f", root1, root2);
    } else {
        root1 = root2 = -b / (2 * a);
        imaginary = sqrt(-discriminant) / (2 * a);
        printf("Two distinct complex roots exist: %.2f + i%.2f and %.2f - i%.2f",
            root1, imaginary, root2, imaginary);
    }

    return 0;
}
```

### **Output:**



```
"C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"
Enter values of a, b, c of quadratic equation (aX^2 + bX + c): 6
-2
-9
Two distinct and real roots exist: 1.40 and -1.07
Process returned 0 (0x0) execution time : 8.530 s
Press any key to continue.
```

## **Problem Name: C program to calculate profit or loss.**

### **Source Code:**

```
#include <stdio.h>

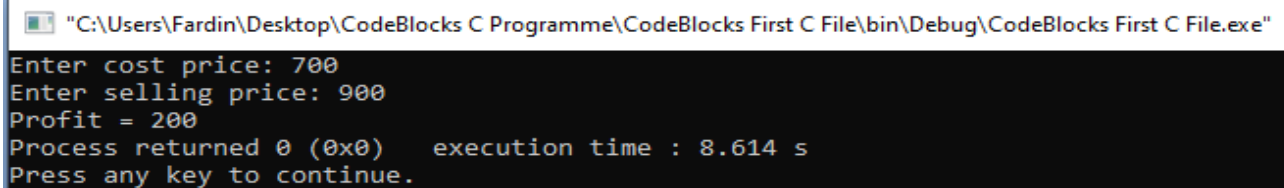
int main() {
    int cp, sp, amt;

    printf("Enter cost price: ");
    scanf("%d", &cp);
    printf("Enter selling price: ");
    scanf("%d", &sp);

    if (sp > cp) {
        amt = sp - cp;
        printf("Profit = %d", amt);
    } else if (cp > sp) {
        amt = cp - sp;
        printf("Loss = %d", amt);
    } else {
        printf("No Profit No Loss.");
    }

    return 0;
}
```

### **Output:**



```
"C:\Users\Fardin\Desktop\CodeBlocks C Programme\CodeBlocks First C File\bin\Debug\CodeBlocks First C File.exe"
Enter cost price: 700
Enter selling price: 900
Profit = 200
Process returned 0 (0x0)   execution time : 8.614 s
Press any key to continue.
```