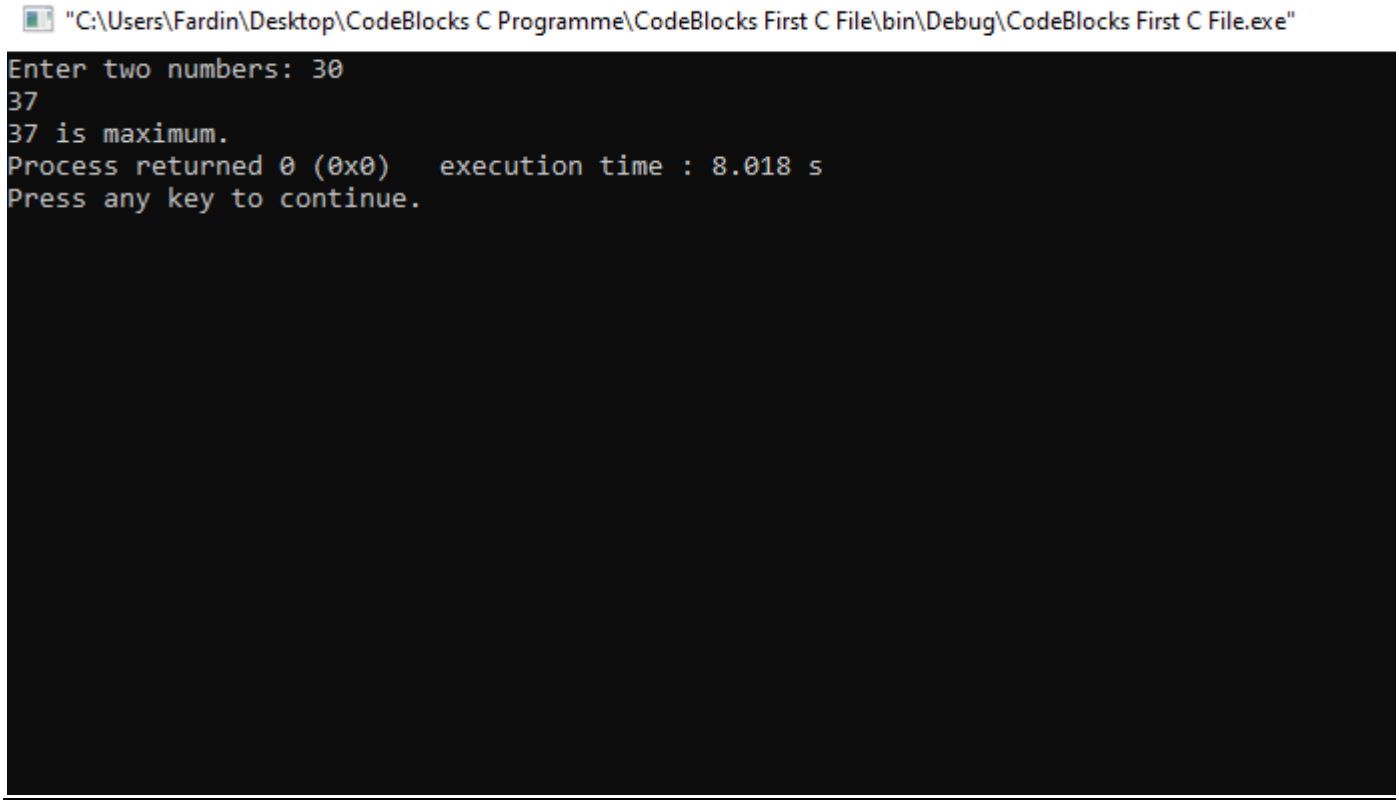
Problem Name: C program to find maximum between two numbers.

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:

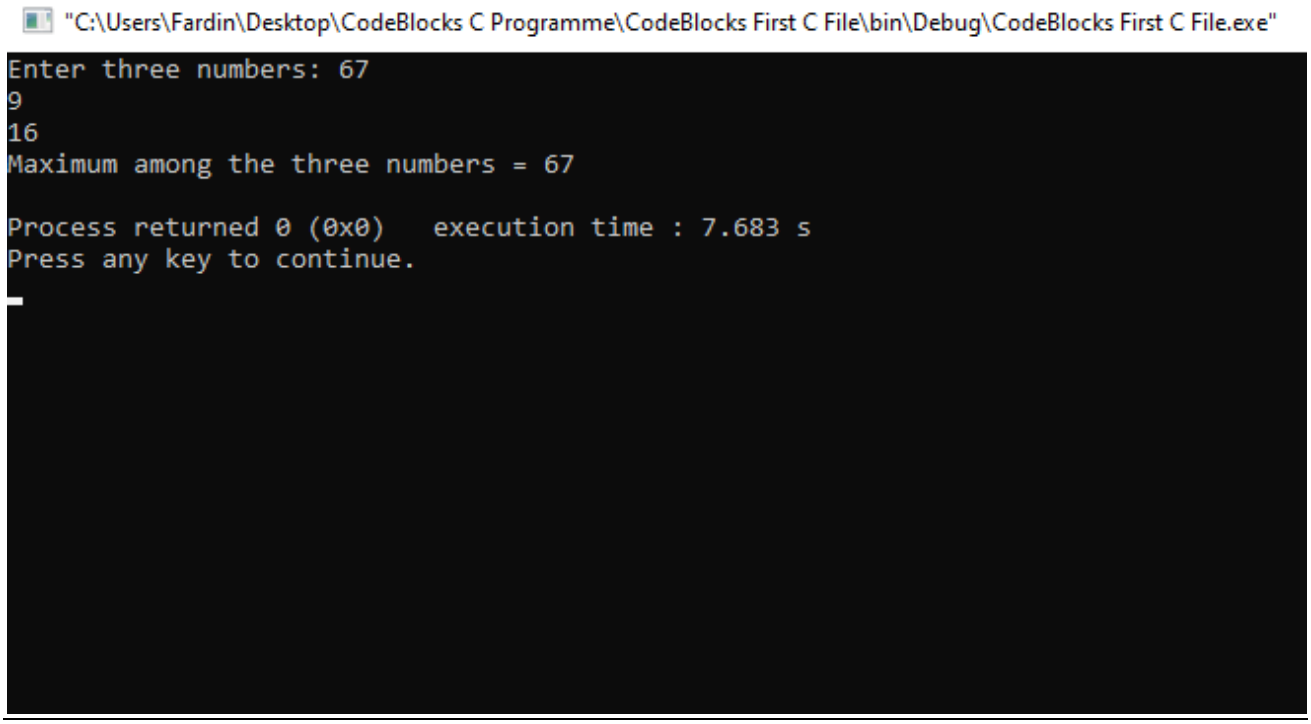


Problem Name: C program to find maximum between three numbers.

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:

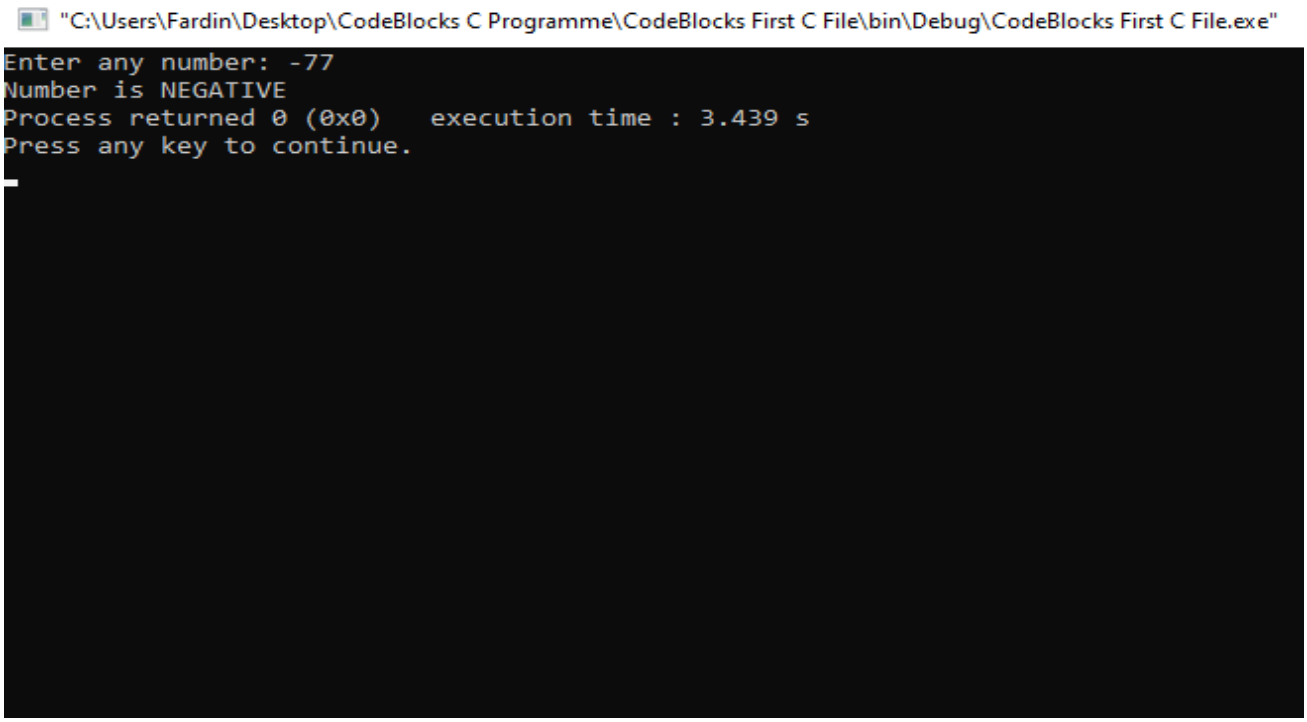


Problem Name: C program to check whether a number is positive, negative or zero.

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:

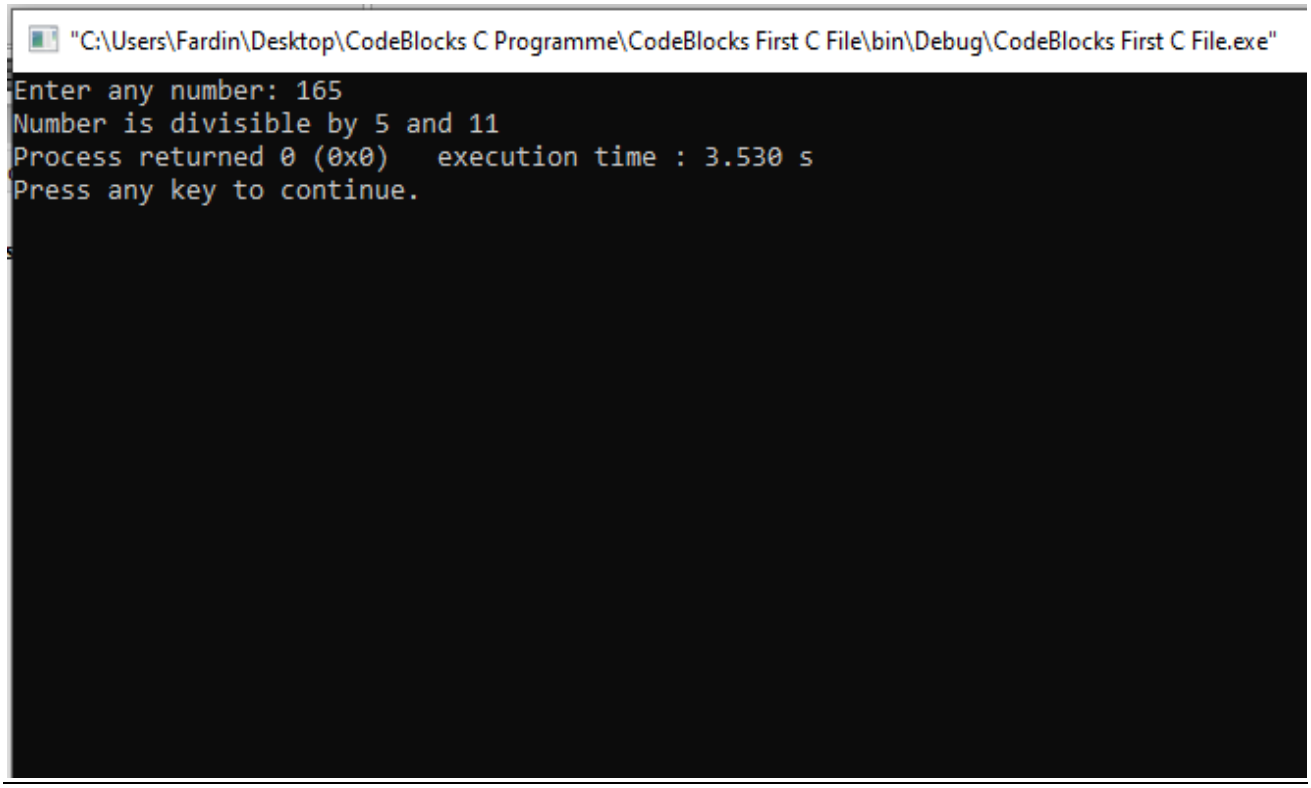


Problem Name: **C program to check whether a number is divisible by 5 and 11 or not.**

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:

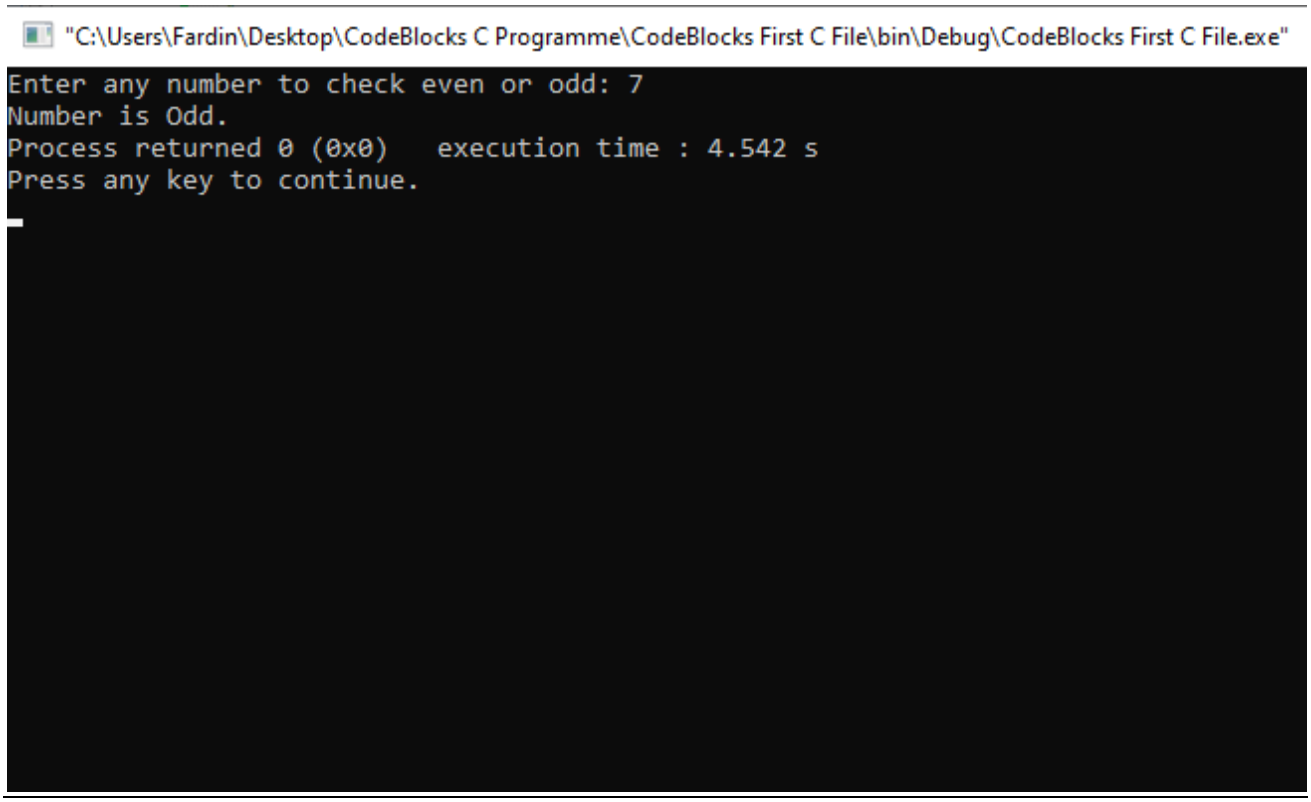


Problem Name: C program check whether a number is even or odd.

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:

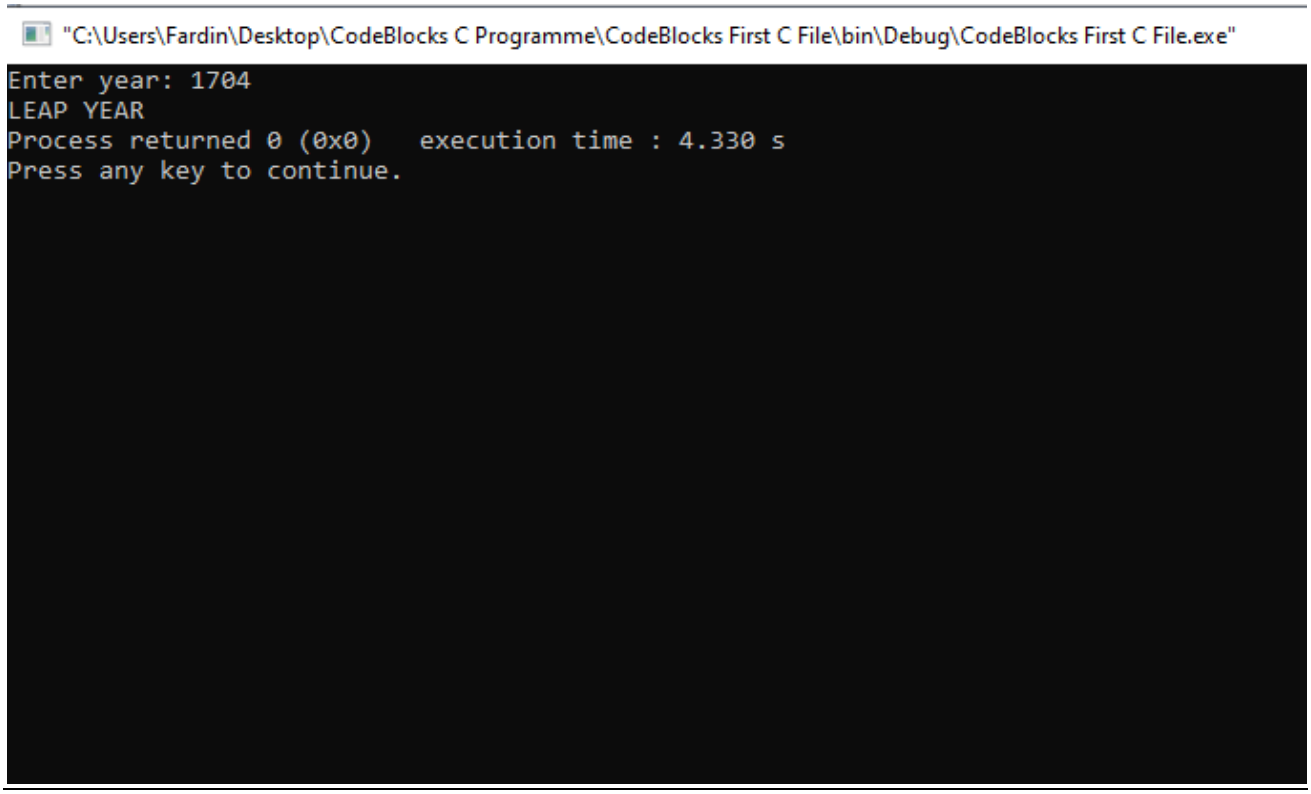


Problem Name: C program to check Leap Year.

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:

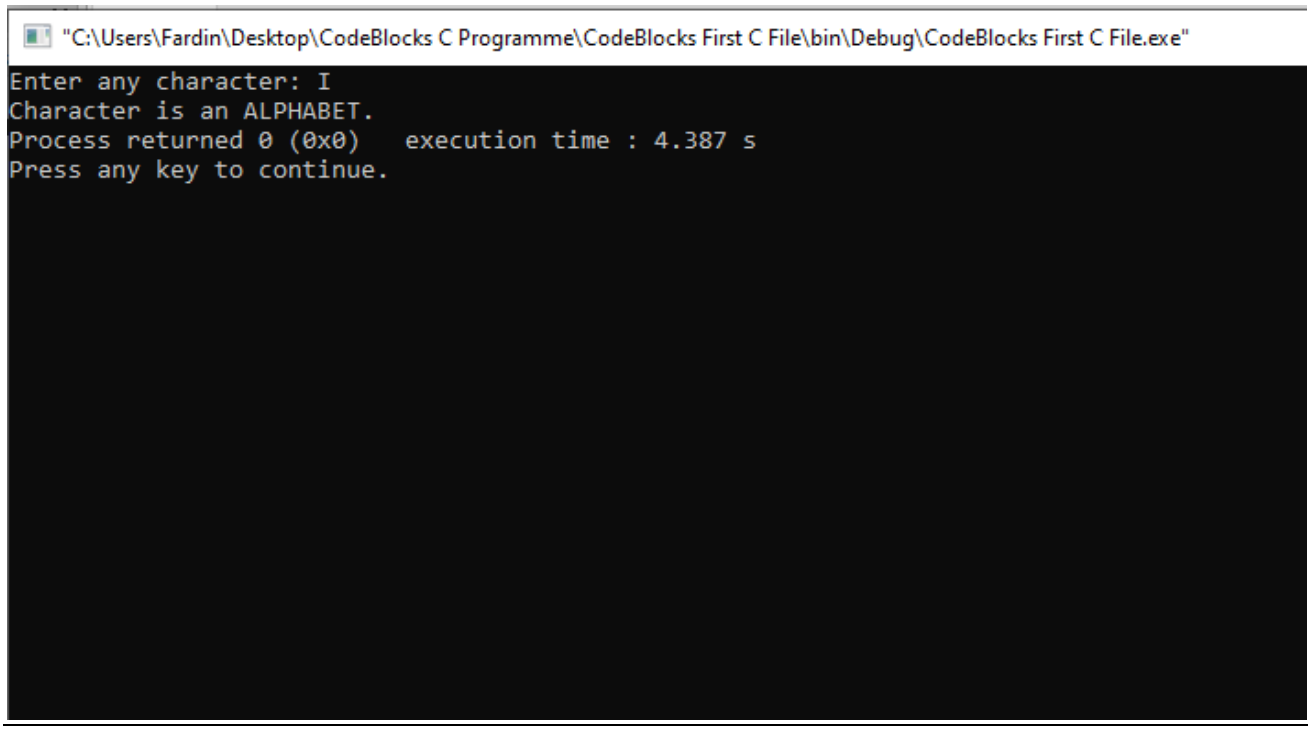


Problem Name: C program to check whether a character is alphabet or not.

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:

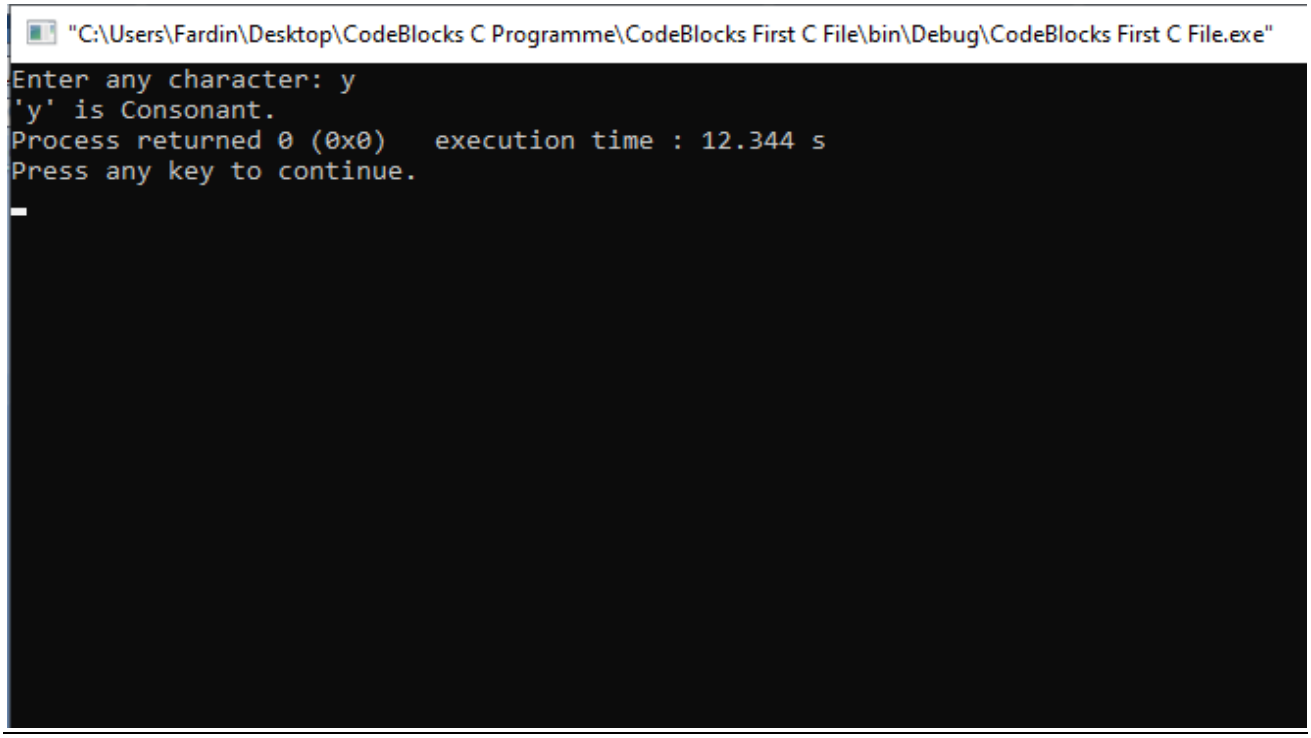


Problem Name: C program to check vowel or consonant.

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:

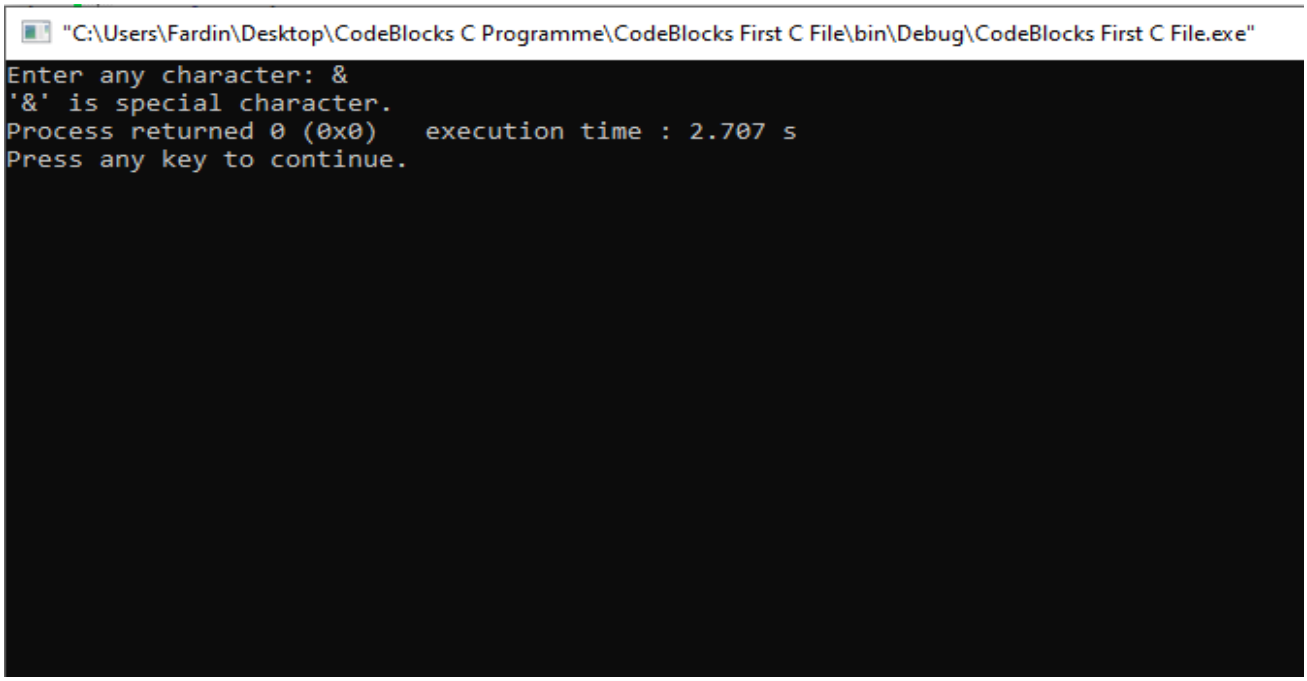


Problem Name: C program to check whether a character is alphabet, digit or special character.

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:

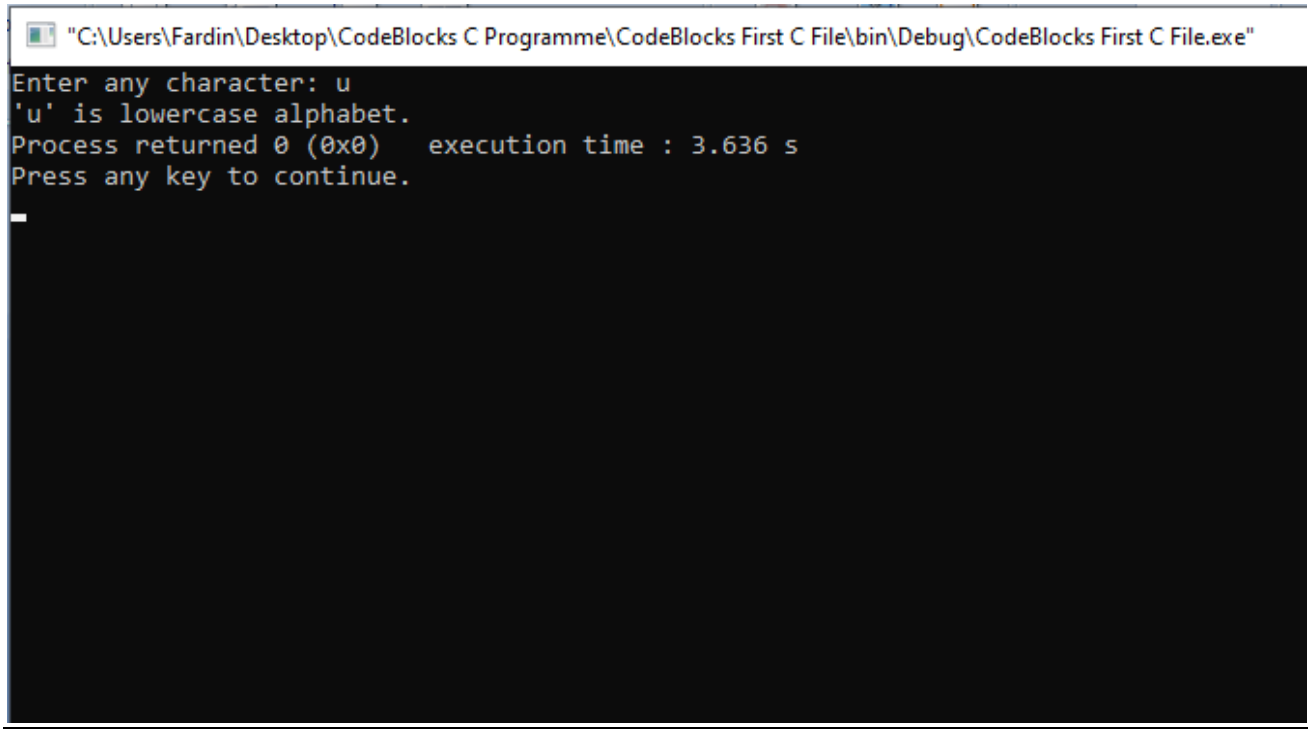


Problem Name: C program to check whether a character is Uppercase or Lowercase.

Source Code:

```
#include <stdio.h>

int main() {
   char ch;

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

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

   return 0;
}
```

Output:

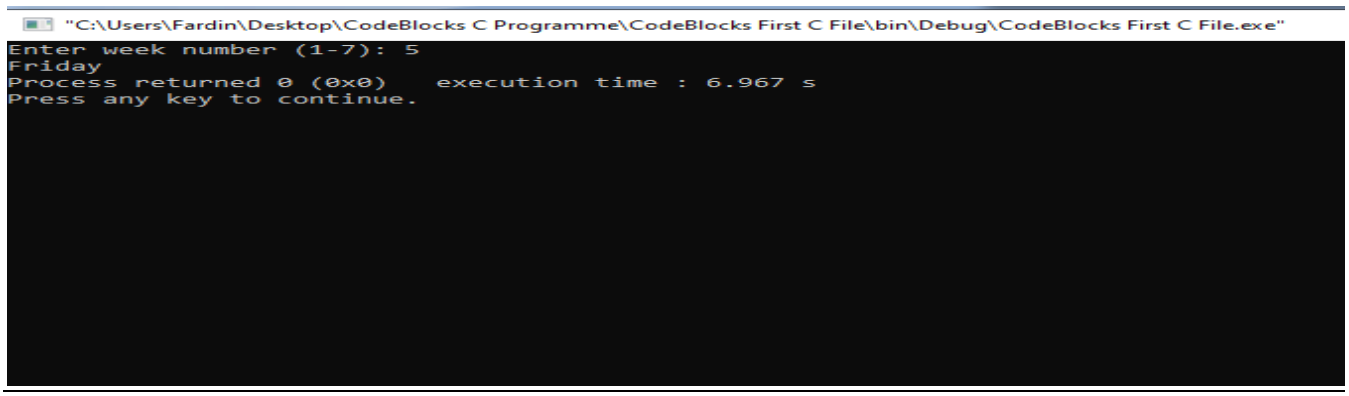


Problem Name: C program to enter week number and print day of week.

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:

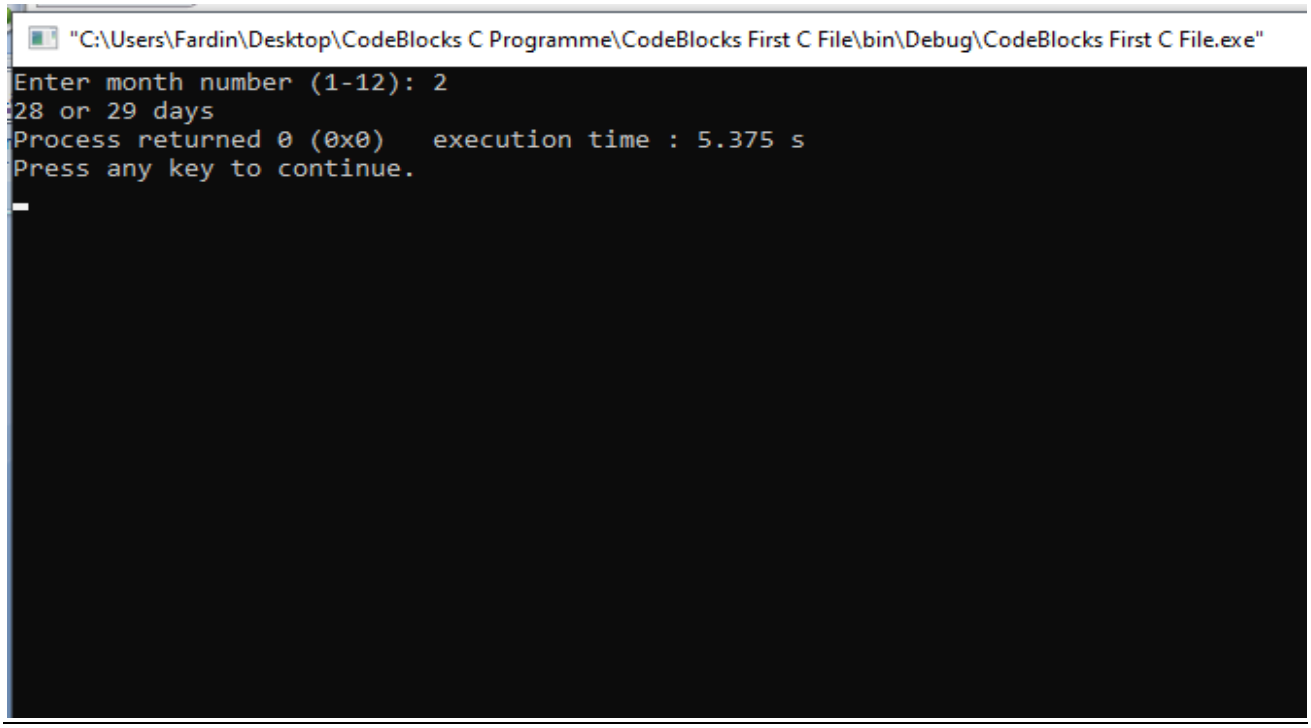


Problem Name: C program to find number of days in month.

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:

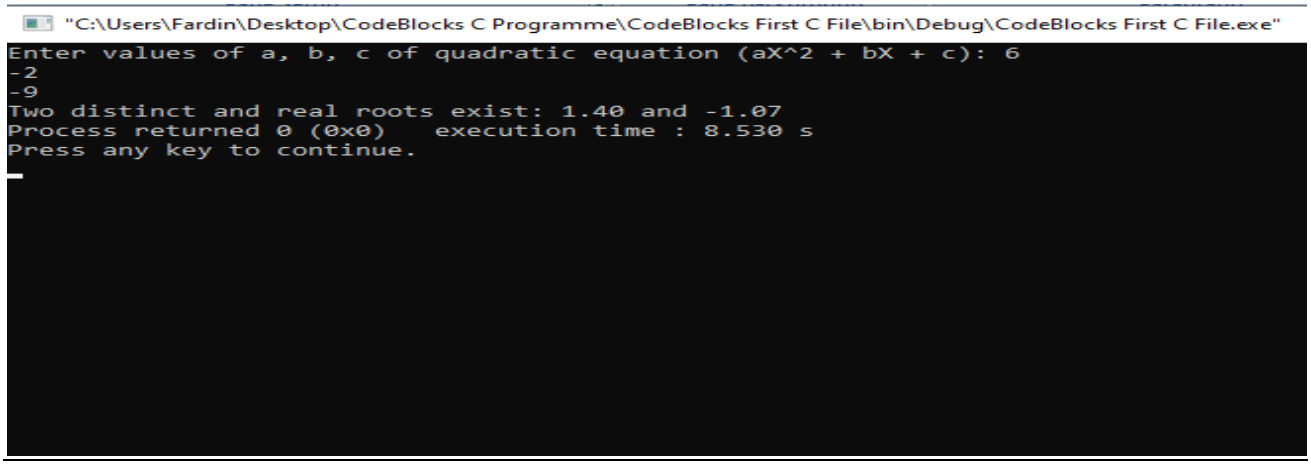


Problem Name: C program to find all roots of a quadratic equation.

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:



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: