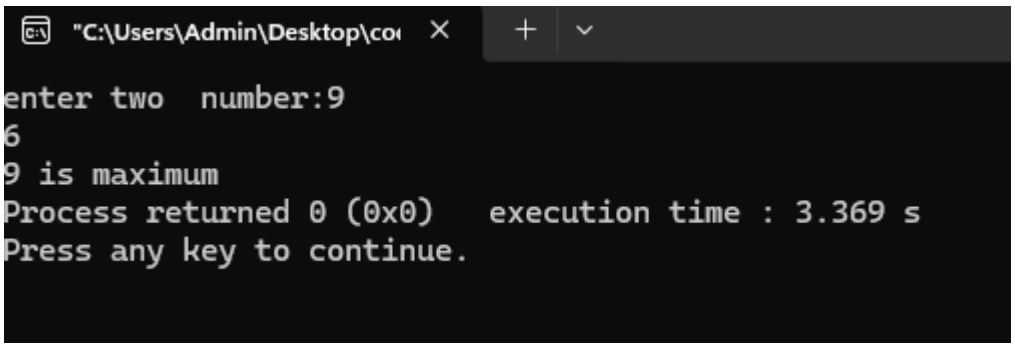
Problem name: C program find the maximum between two numbers

Source code:
```
#include<stdio.h>
int main(){
int num1,num2;
printf("enter two  number:");
scanf("%d%d",&num1,&num2);
if(num1>num2){
   printf("%d is maximum",num1);
}
if(num1<num2){
   printf("%d is maximum",num2);
}
if(num1==num2){
   printf("both are equal");
}

return 0;
}
```

Output:



Problem name: C program find the maximum number 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)
   {
      if(num1 > num3)
      {
         max = num1;
      }
      else
      {
```

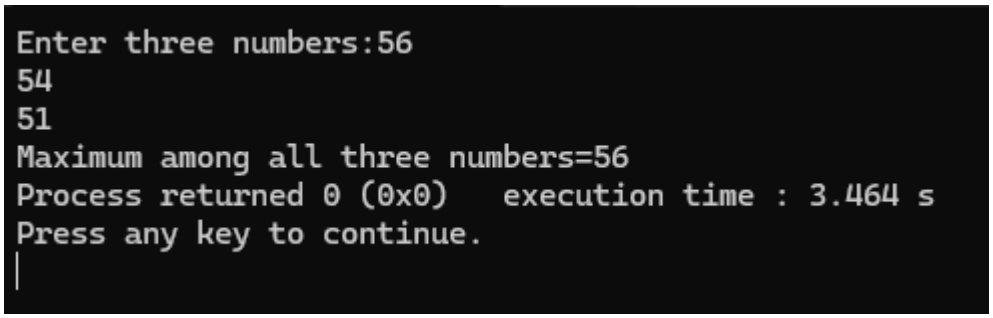
```
        max = num3;
      }
   }
   else
   {
      if(num2 > num3)
      {

         max = num2;
      }
      else
      {

         max = num3;
      }
   }


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

Output:



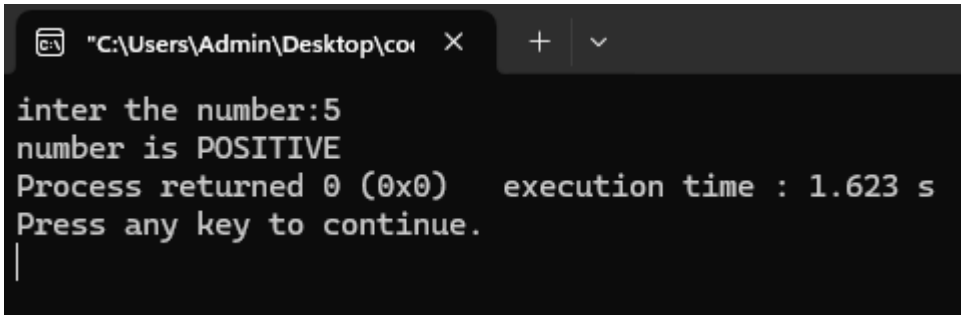
Problem name:C program to check whether a number is positive,negative or zero

Source code: #include<stdio.h>

```
int main(){
int num;
printf("inter the number:");
scanf("%d",&num);
if(num>0)
{
   printf("number is POSITIVE");
}
if(num<0){
   printf("number is NEGATIVE");
}
```

```
if(num==0){
   printf("number is ZERO");
}
return 0;
}
```

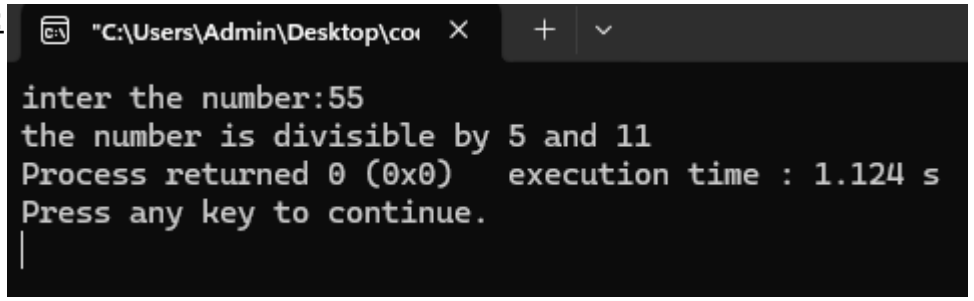
Output:



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("inter the number:");
scanf("%d",&num);
if((num%5==0)&&(num%11==0)){
   printf("the number is divisible by 5 and 11");
}
else{
   printf("the number is not divisible by 5 and 11");
}
return 0;
}
```

Output:

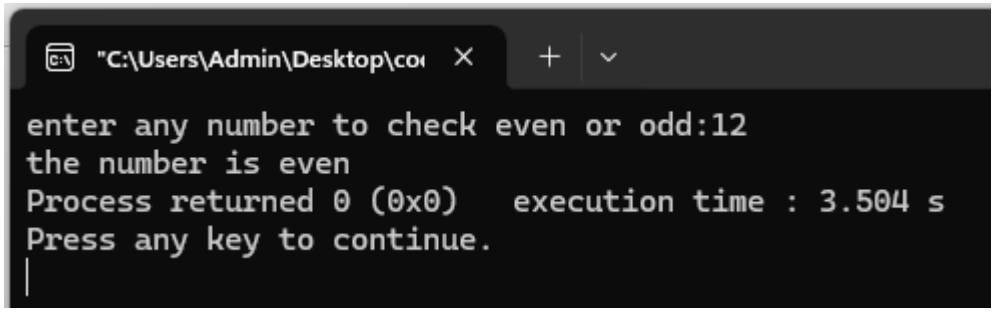


Problem name: C program to check whether a number is even or odd

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("the number is even");
}
else{
   printf("the number is odd");
}
return 0;
}
```

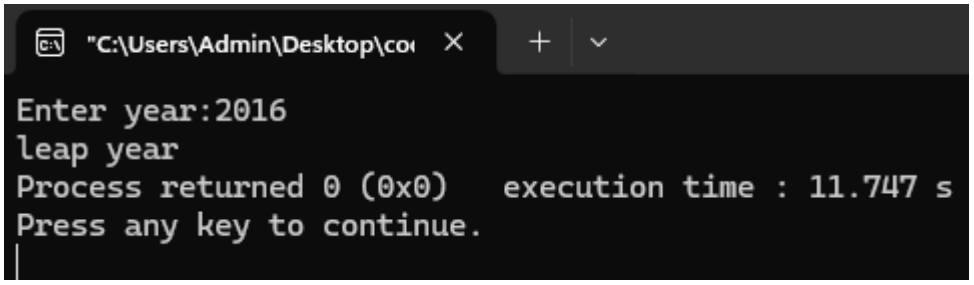
Output:



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:

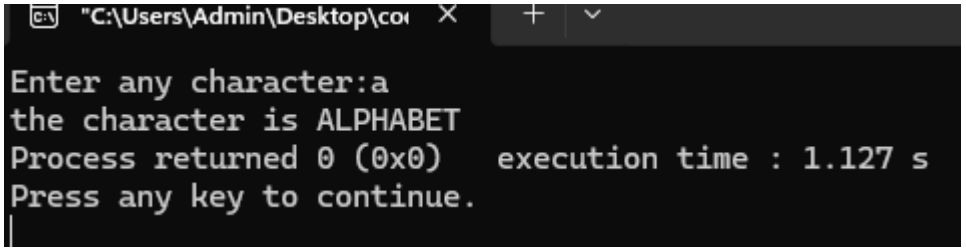


Problem name: C program to check whether a character is alphabet or not

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("the character is ALPHABET");
}
else{
   printf("the character is not ALPHABET");
}
return 0;
}
```

Output:



Problem name: C program to check vowel or consonant

Source code: #include <stdio.h>

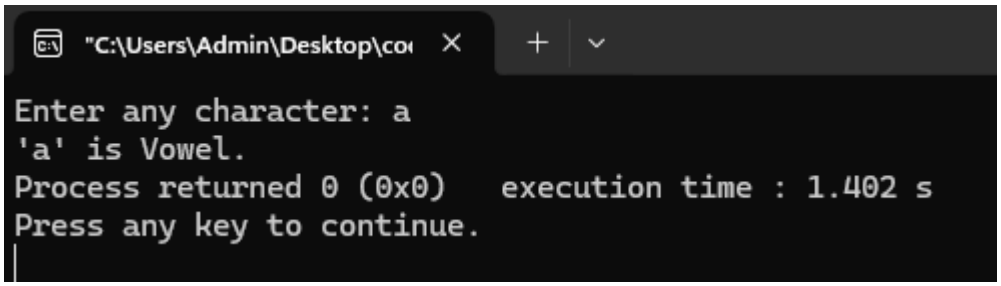
```
int main()
{
   char ch;
   printf("Enter any character: ");
   scanf("%c", &ch);
   if(ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u' ||
      ch=='A' || ch=='E' || ch=='I' || ch=='O' || ch=='U')
   {
      printf("'%c' is Vowel.", ch);
   }
   else if((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))
   {
      printf("'%c' is Consonant.", ch);
   }
   else
   {

      printf("'%c' is not an alphabet.", ch);
   }

   return 0;
```

}

Output:

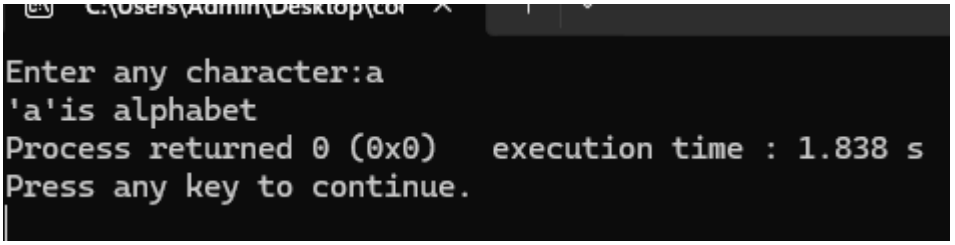


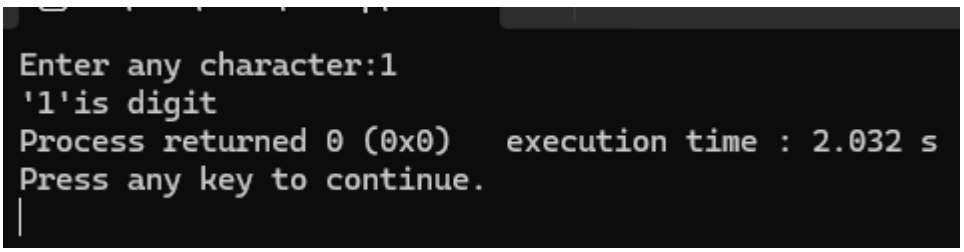
Problem name: C program to check whether a character is alphabet_, digit or special character

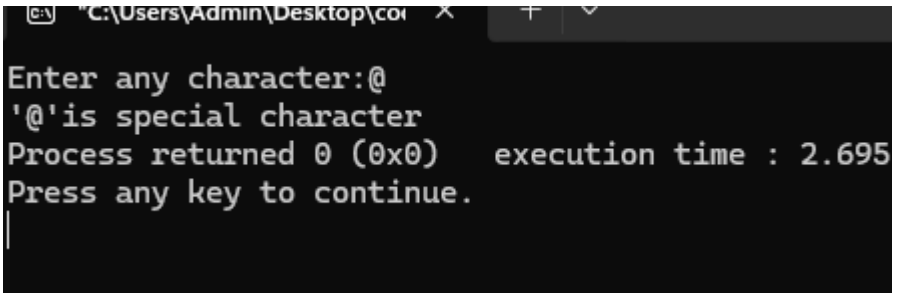
Source code:

```
#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:





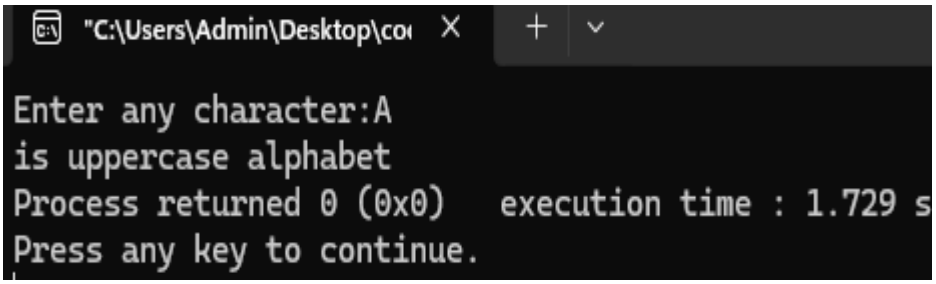


Problem name: C program to check whether a character is uppercase of lowercase

Source code:
```
#include<stdio.h>
int main(){
char ch;
printf("Enter any character:");
scanf("%c",&ch);
if(ch>='A'&&ch<='Z')
   {
   printf("is uppercase alphabet",ch);
}
else if(ch >='a'&& ch <='z')
   {
   printf("is lowercase alphabet",ch);
}
else
{
   printf("is not an alphabet",ch);
}

return 0;
}
```

Output:

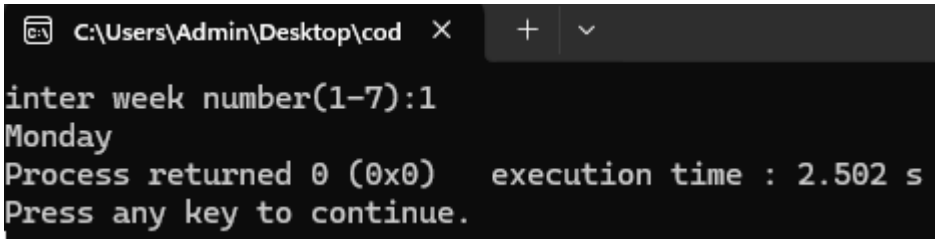


Problem name: C program to enter week number and print day of week

Source code:
```
int main(){
int week;
printf("inter 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 inter week number between 1-7");
}
return 0;
}
```

Output:



Problem name: C program to find days in month

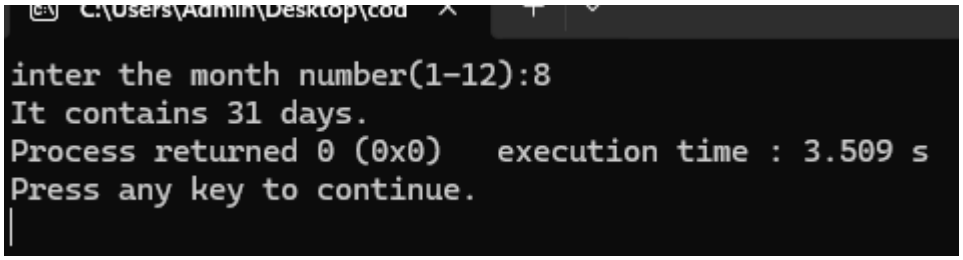
Source code:

```
#include<stdio.h>
int main(){
int month;
printf("inter the month number(1-12):");
scanf("%d",&month);
if(month==1){
   printf("It contains 31 days.");
}
else if (month==2){
```

```
    printf("It contains 28 or 29 days.");
}
else if (month==3){
    printf("It contains 31 days.");
}
else if (month==4){
    printf("It contains 30 days.");
}
else if(month==5){
    printf("It contains 31 days.");
}
else if(month==6){
    printf("It contains 30 days.");
}
else if(month==7){
    printf("It contains 31 days.");
}
else if(month==8)
{
    printf("It contains 31 days.");
}
else if(month==9){
    printf("It contains 30 days.");
}
else if(month==10){
    printf("It contains 31 days.");
}
else if(month==11){
    printf("It contains 30 days.");
}
else if(month==12){
    printf("It contains 31 days.");
}
else{
    printf("invalid info! please inter the month (1-12)");
}

return 0;
}
```

Output:



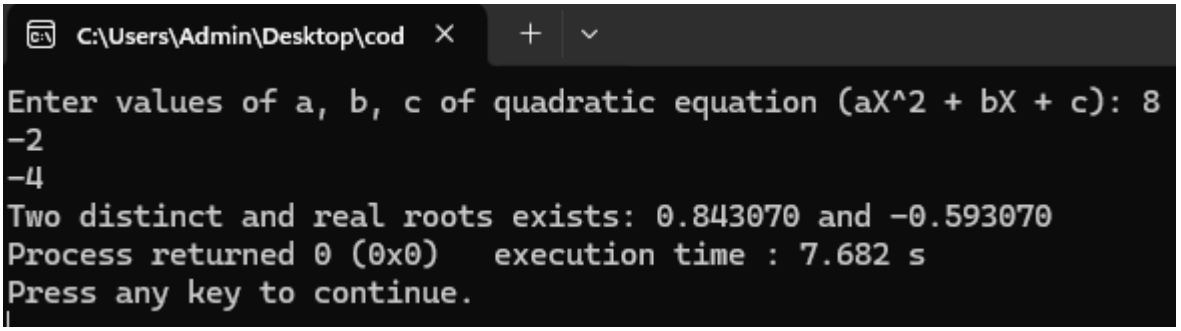
Problem name: C program to find all roots of quadratic equation

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 exists: %2f and %2f",root1,root2);
   }
   else if(discriminant=0)
   {
      root1=root2=-b/(2*a);
      printf("two equal and real root exist: %2f and %2f",root1,root2);

   }
   else if(discriminant < 0)
   {
      root1 = root2 = -b / (2 * a);
      imaginary = sqrt(-discriminant) / (2 * a);

      printf("Two distinct complex roots exists: %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("inter the cost price:");
scanf("%d",&cp);
printf("inter the selling price:");
scanf("%d",&sp);
if(sp>cp){
    amt=sp-cp;
    printf("profit=%d",amt);
}
else if(sp<cp){
        amt=cp-sp;
    printf("loss=%d",amt);
}
else{
    printf("no profit no loss");
}
return 0;
}
```

Output: