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/*C Program to implement Euclid's Algorithm
Input  :  Two integers (a,b)
Output :  GCD of a and b
*/

#include<stdio.h>
int Euclid(int,int);
int main()
{
        int a, b, gcd;

        printf("\n\n I want to find the GCD of two numbers.\n\n");
        printf(" What are those two numbers?\n ");
        scanf("%d%d",&a,&b);
        gcd = Euclid(a,b);
        printf("\n-------------------------------------\n");
        printf(" GCD of %d and %d is %d",a,b,gcd);
        printf("\n-------------------------------------\n\n ");

        return 0;
}

int Euclid(int a, int b)
{
   int temp;
   if(a<0)        //Treat negative integer just like positive integer
   a = abs(a);     //Either way the answer will be same because we are finding
greatest factor and it will be positive only.

   if(b<0)
   b = abs(b);
```

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        if(a < b)
        {
          temp =a;      //If a is less than b, change their position
          a=b;
          b= temp;
        }

        if(b == 0)
        return a;
        else
        Euclid(b,a%b);
}
```

**Sample Input and Output:**

1. Both the numbers are positive

```
I want to find the GCD of two numbers.

What are those two numbers?
48 32

---------------------------------------
GCD of 48 and 32 is 16
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Press any key to continue...
```

2. One number is negative

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I want to find the GCD of two numbers.

What are those two numbers?
48 -32

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GCD of 48 and -32 is 16
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Press any key to continue...
```

3. Both are negative numbers.