Aim:

Write a program to find the gcd (Greatest Common Divisor) of a given two numbers using recursion process.

The greatest common divisor (gcd) of two or more integers, when at least one of them is not zero, is the largest positive integer that is a divisor of both numbers.

At the time of execution, the program should print the message on the console as:

```
Enter two integer values :
```

For example, if the user gives the **input** as:

```
Enter two integer values : 12 18
```

then the program should **print** the result as:

```
The gcd of two numbers 12 and 18 = 6
```

Note: Write the recursive function **gcd()** in Program906a.c .

Source Code:

Program906.c

```c
#include <stdio.h>
#include "Program906a.c"
void main() {
    int a, b;
    printf("Enter two integer values : ");
    scanf("%d %d", &a, &b);
    printf("The gcd of two numbers %d and %d = %d\n", a, b, gcd(a, b));
}
```

Program906a.c

```c
int gcd (n1,n2);
int gcd(n1,n2)
{
    if(n2!=0)
    return gcd(n2,n1%n2);
    else
    return n1;

}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output

Enter two integer values : 12 15
The gcd of two numbers 12 and 15 = 3

Test Case - 2
User Output
Enter two integer values : 36 124
The gcd of two numbers 36 and 124 = 4

Sasi Institute of Technology and Engineering (Autonomous)