

## PROGRAM 2 (i) : RECURSIVE GCD

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

```
int GCD(int , int );
```

```
int main()
```

```
{
```

```
    int num1, num2,res;
```

```
    printf("\nEnter two numbers : ");
```

```
    scanf("%d %d", &num1, &num2);
```

```
    res=GCD(num1,num2);
```

```
    printf("GCD of %d and %d = %d",num1,num2,res);
```

```
    return 0;
```

```
}
```

```
int GCD(int x, int y)
```

```
{
```

```
    int rem;
```

```
    rem=x%y;
```

```
    if(rem==0)
```

```
    {
```

```
        return y;
```

```
    }
```

```
    else
```

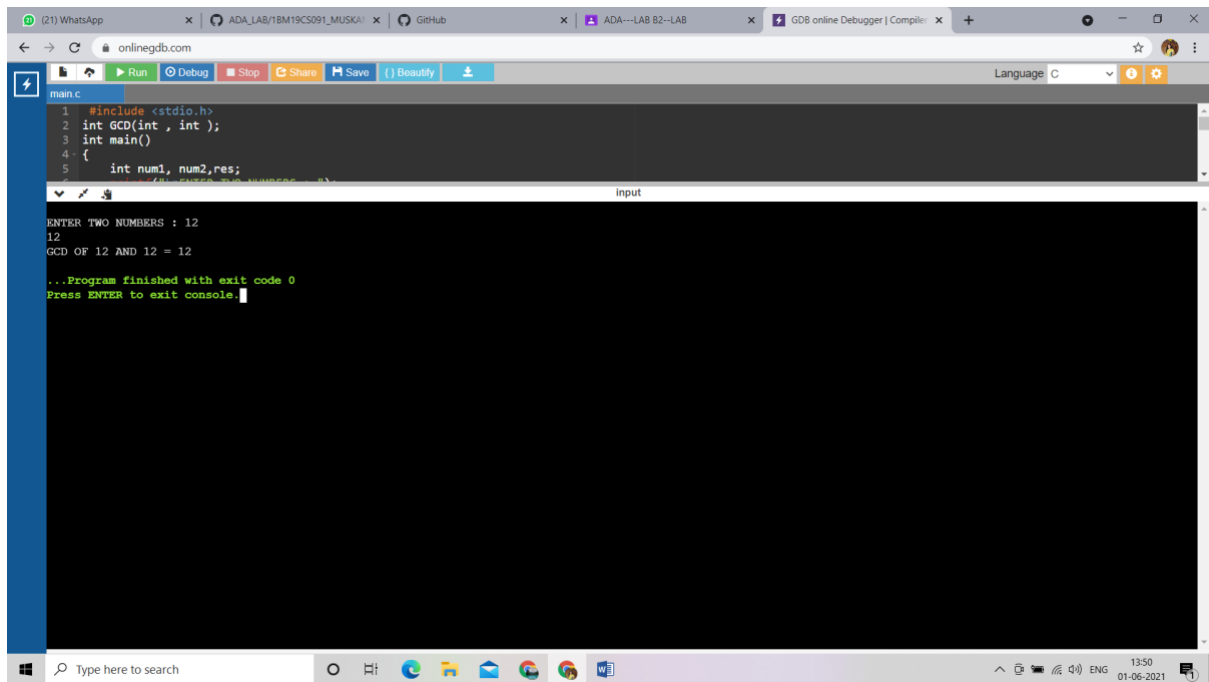
```
    {
```

```
        return (GCD(y,rem));
```

```
    }
```

```
}
```

## OUTPUT:



```
main.c
1 #include <stdio.h>
2 int GCD(int , int );
3 int main()
4 {
5     int num1, num2, res;
6     // Enter two numbers
7     printf("ENTER TWO NUMBERS : ");
8     scanf("%d %d", &num1, &num2);
9     res = GCD(num1, num2);
10    printf("GCD OF %d AND %d = %d", num1, num2, res);
11    return 0;
12 }
```

Input

```
ENTER TWO NUMBERS : 12
12
GCD OF 12 AND 12 = 12

...Program finished with exit code 0
Press ENTER to exit console.
```