```c
#include <stdio.h>
#include <stdlib.h>
int iterative(int a, int b)
{
int x,y;
while (b > 0)
{
x=a/b;
y=a-x*b;
a=b;
b=y;
}
return a;
}
int recursive(int a, int b)
{
if (b == 0)
return a;
int p=a/b;
int q=a-p*b;
return recursive(b,q);
}
int main()
{
int a,b,choice;
printf("Enter the two Positive numbers : \n");
scanf("%d %d",&a,&b);
for(;;)
{
  printf("\n1.Iterative_Gcd\n2.Recursive_Gcd\n3.Exit\n");
  printf("Enter your choice:\n");
  scanf("%d",&choice);
  switch(choice)
  {
     case 1:printf("Gcd of the two numbers is : %d\n",iterative(a,b));
            break;
     case 2:printf("Gcd of the two numbers is : %d\n",recursive(a,b));
            break;
```

```c
 8    x=a/b;
 9    y=a-x*b;
10    a=b;
11    b=y;
12    }
13    return a;
14    }
15    int recursive(int a, int b)
16    {
17    if (b == 0)
18    return a;
19    int p=a/b;
20    int q=a-p*b;
21    return recursive(b,q);
22    }
23    int main()
24    {
25    int a,b,choice;
26    printf("Enter the two Positive numbers : \n");
27    scanf("%d %d",&a,&b);
28    for(;;)
29    {
30     printf("\n1.Iterative_Gcd\n2.Recursive_Gcd\n3.Exit\n");
31     printf("Enter your choice:\n");
32     scanf("%d",&choice);
33     switch(choice)
34     {
35        case 1:printf("Gcd of the two numbers is : %d\n",iterative(a,b));
36               break;
37        case 2:printf("Gcd of the two numbers is : %d\n",recursive(a,b));
38               break;
39        default:exit(0);
40     }
41    }
42    return 0;
43    }
44
```

```
Enter the two Positive numbers :
20 70

1.Iterative_Gcd
2.Recursive_Gcd
3.Exit
Enter your choice:
1
Gcd of the two numbers is : 10

1.Iterative_Gcd
2.Recursive_Gcd
3.Exit
Enter your choice:
2
Gcd of the two numbers is : 10

1.Iterative_Gcd
2.Recursive_Gcd
3.Exit
Enter your choice:
3


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(program exited with code: 0)

Press any key to continue . . . _
```