5.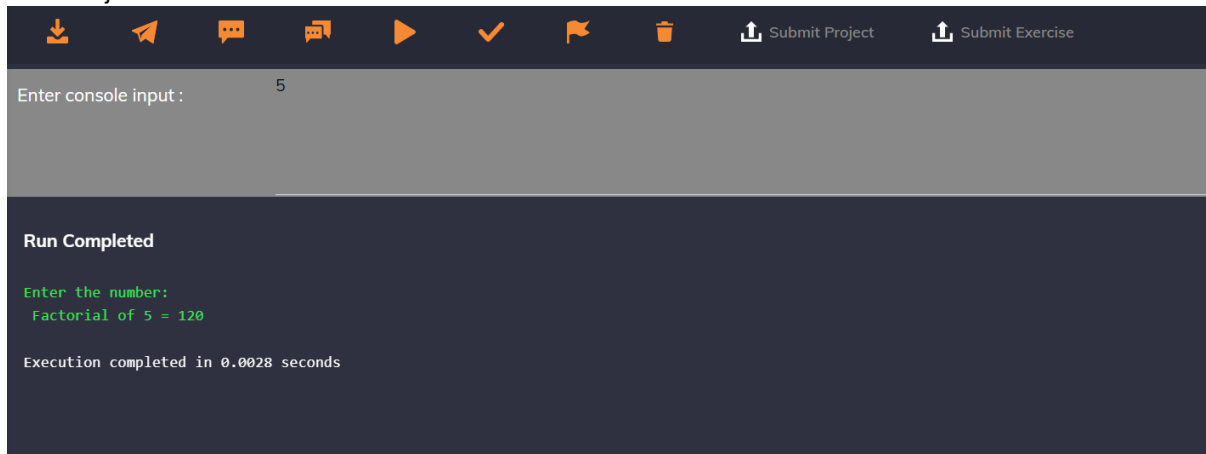 **Write a C program to find the factorial of a given integer number using both recursive and non-recursive functions.**

Non Recursive:

```c
#include<stdio.h>
int main()
{
int n,i,f;
printf("Enter the number:\n ");
scanf("%d",&n);
f=1;
for(i=1;i<=n;i++)
f=f*i;
printf("Factorial of %d = %d",n,f);
return 0;
}
```

Enter console input :   5

Run Completed

```
Enter the number:
 Factorial of 5 = 120

Execution completed in 0.0028 seconds
```

Recursive:

```c
#include<stdio.h>
long int fact(int n);
int main( )
{
long int n;
printf("\n Enter an integer no:\n");
scanf("%ld",&n);
printf("factorial of %ld = %ld \n", n, fact(n));
return 0;
}
long int fact(int n)
{
if(n==0)
return 1;
else
return n*fact(n-1);
}
```

Enter console input :   5

Run Completed

 Enter an integer no:
factorial of 5 = 120

Execution completed in 0.0027 seconds