CSIS 3540 Client Server Systems

Lab 4

5.37 (Factorials) The factorial of a nonnegative integer *n* is written as *n*! (pronounced "*n* factorial") and is defined as follows:

 $n! = n \cdot (n-1) \cdot (n-2) \cdot \dots \cdot 1$ (for values of n greater than or equal to 1) and

n! = 1 (for n = 0)

For example, $5! = 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1$, which is 120. Write an app that reads a nonnegative integer and computes and displays its factorial.

```
_ 🗆 X
C:\Windows\system32\cmd.exe
Enter a positive integer: 2
2! is 2
Press any key to continue . . .
```

```
_ D X
C:\Windows\system32\cmd.exe
Enter a positive integer: 4
4! is 24
Press any key to continue . . .
```

```
_ 🗆 🗆 X
C:\Windows\system32\cmd.exe
Enter a positive integer: 1
1! is 1
Press any key to continue . . .
```

```
_ D X
 C:\Windows\system32\cmd.exe
Enter a positive integer: 5
5! is 120
Press any key to continue . . .
```