**Software Engineering**

**(SE 225)**

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Assignment #2:

*Extreme Programming*

*(Test Driven Development - TDD)*

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Roll #: 153157 &

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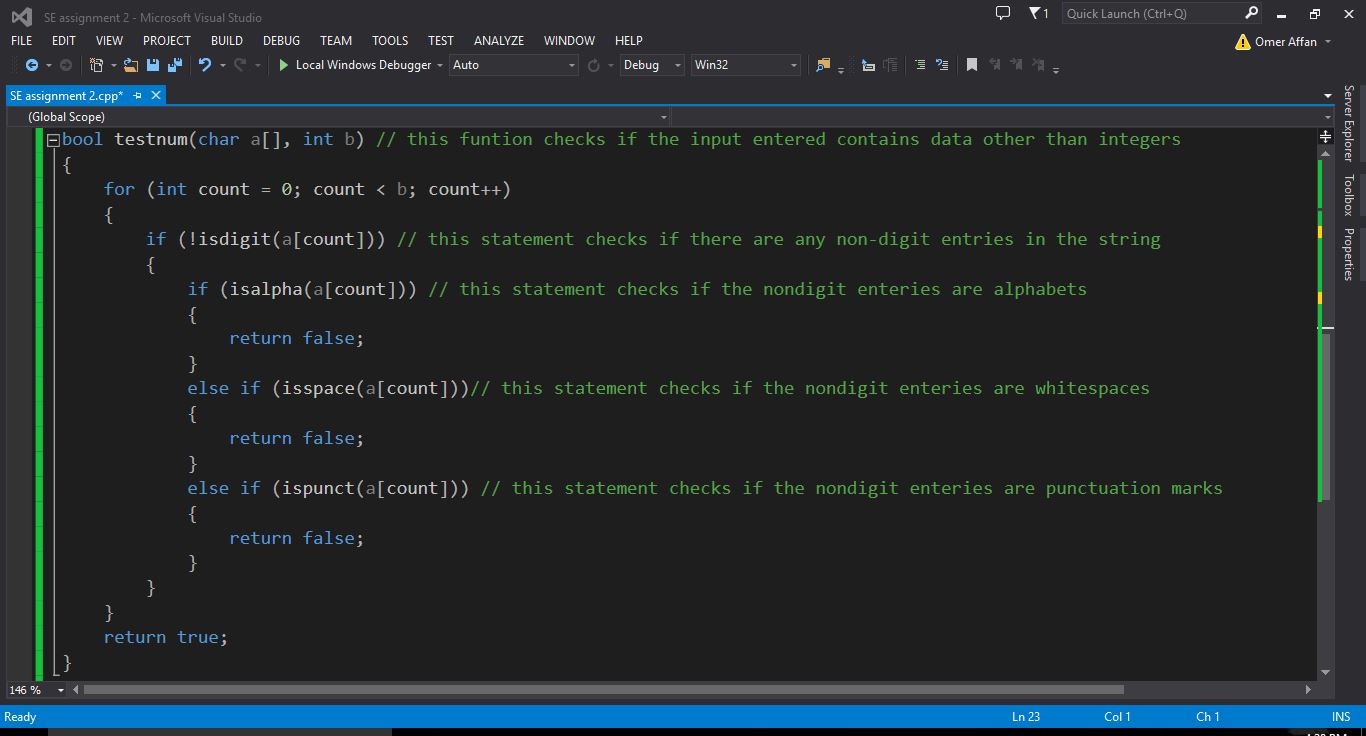
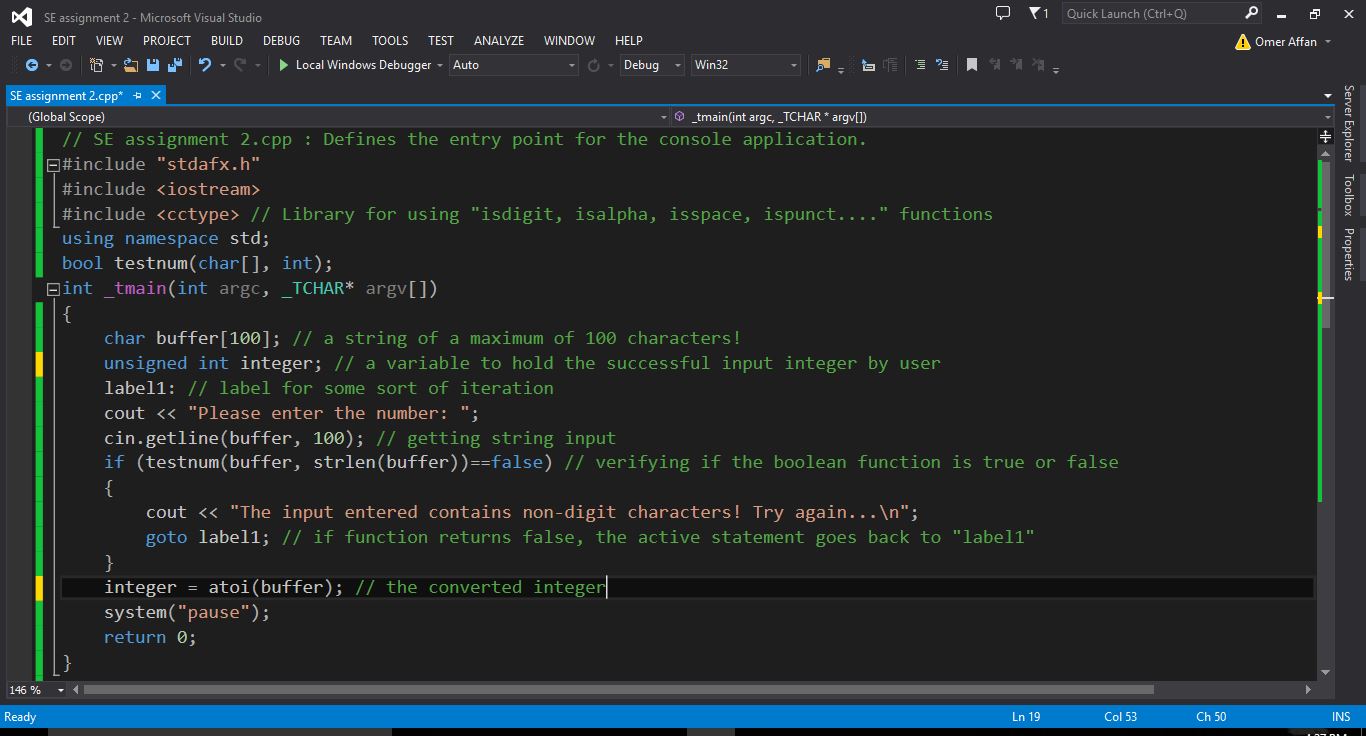
Roll #: 153165

#### Requirements

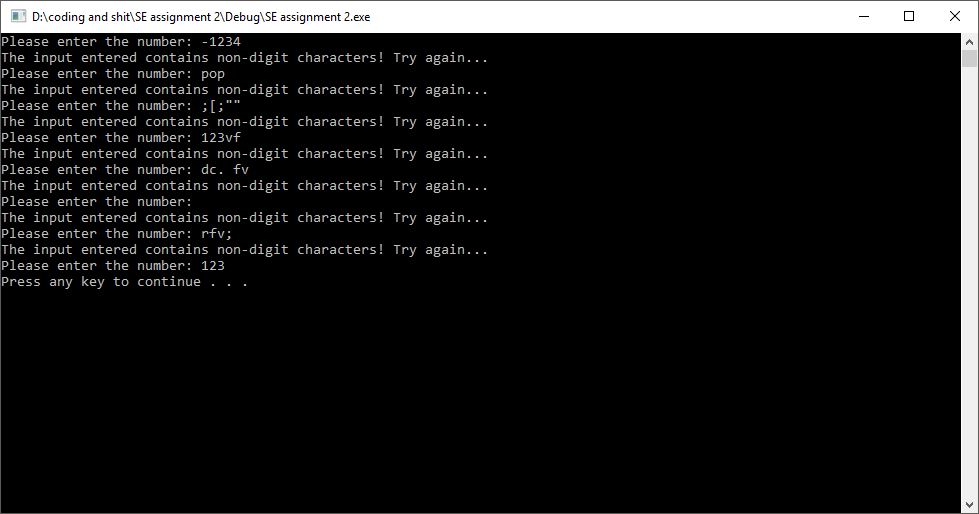
1. Factorial calculates the multiplication of the all positive numbers less than or equal Target Number(n).
2. Target Number(n) is a non-negative integer.

*First step: Input validation!*

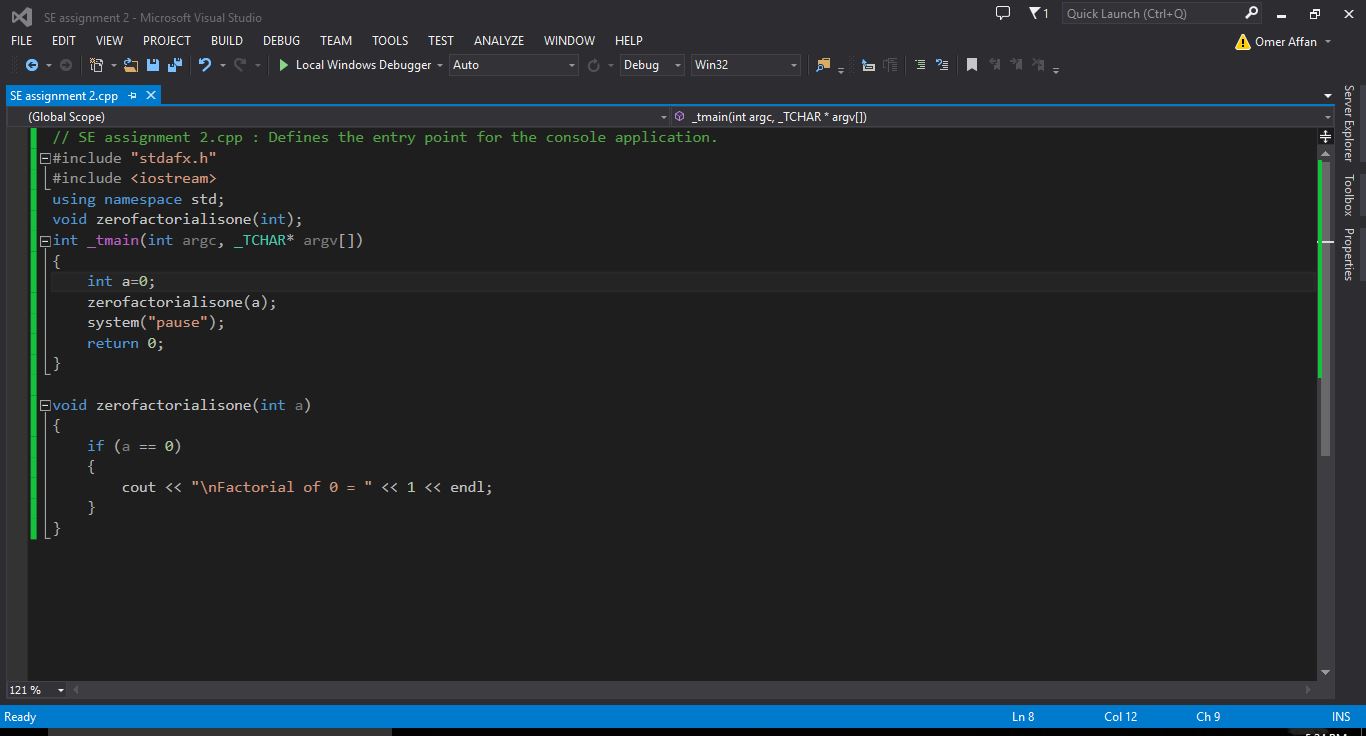
To make sure whatever input the user enters, accept only POSITIVE INTEGERS and nothing else…



Test inputs and results…



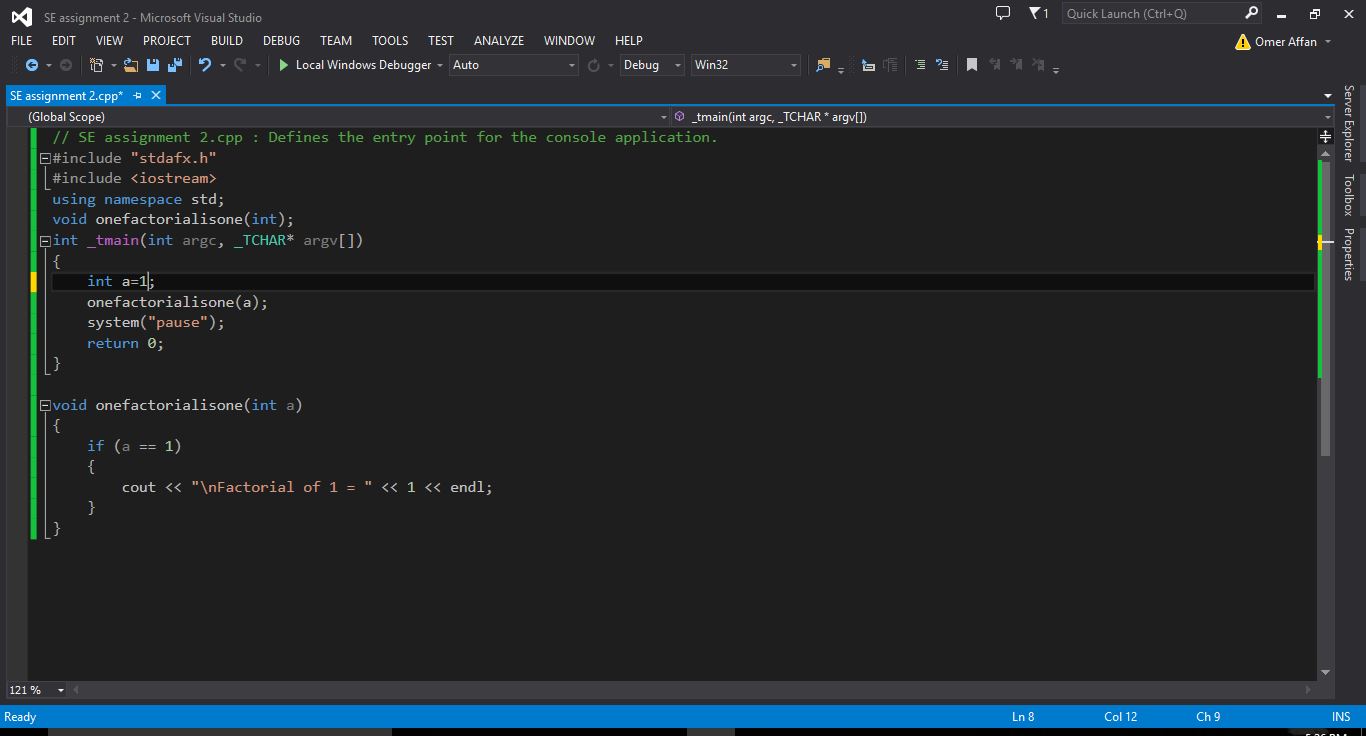
*Second step, unit testing*

TEST# 1:  


Result

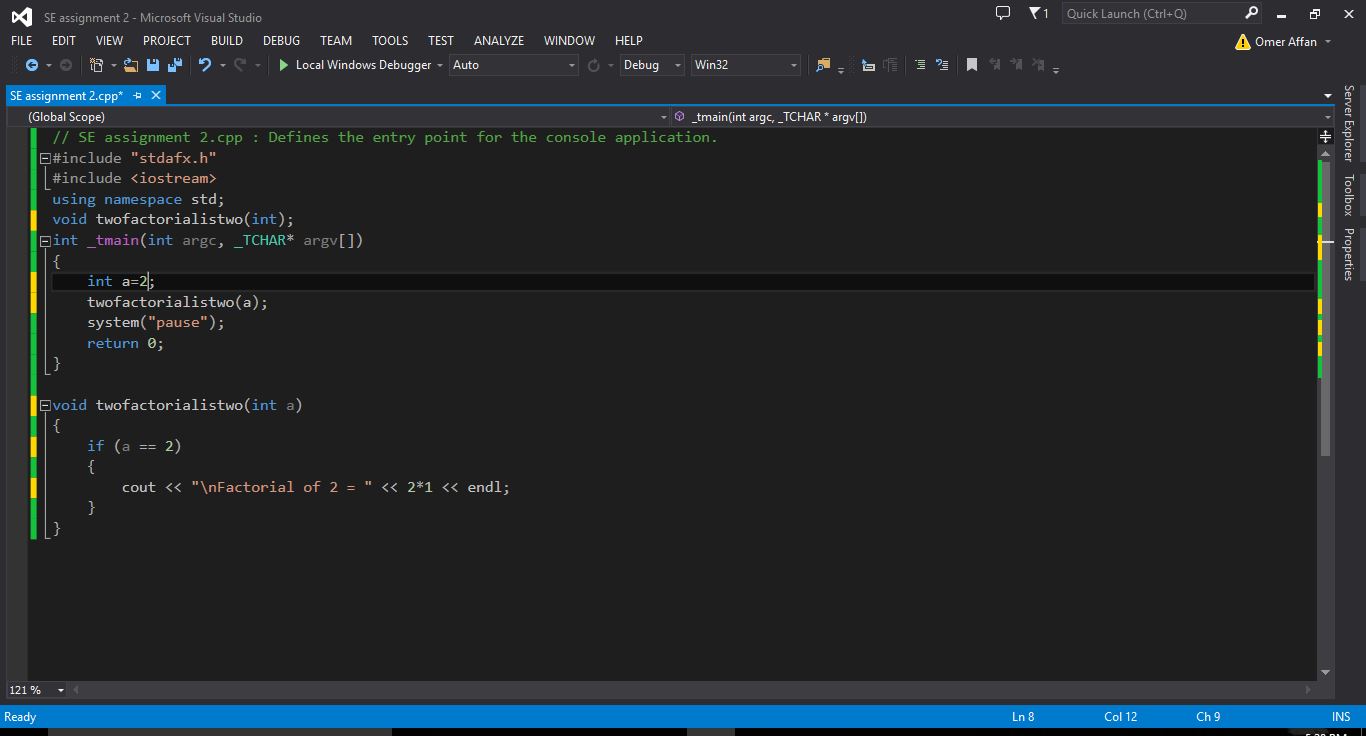


TEST# 2:



Result

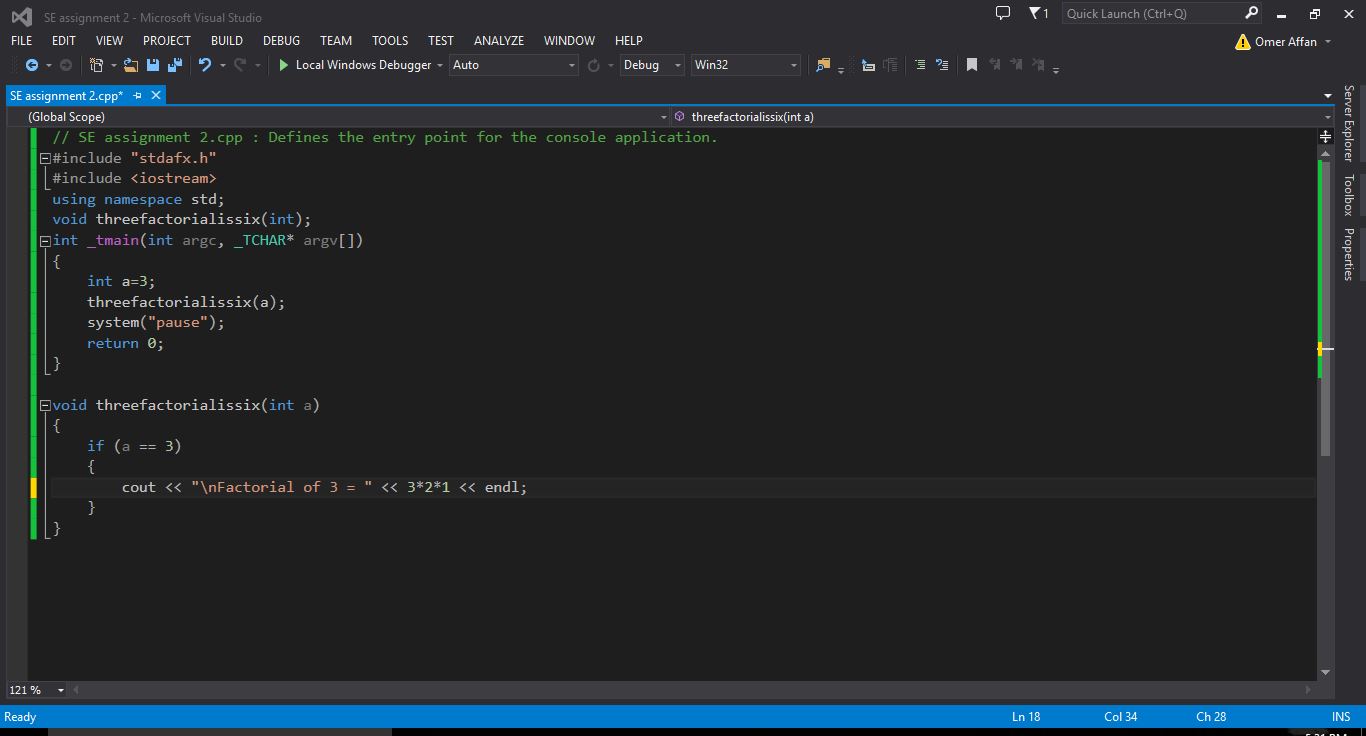


TEST# 3:

Result



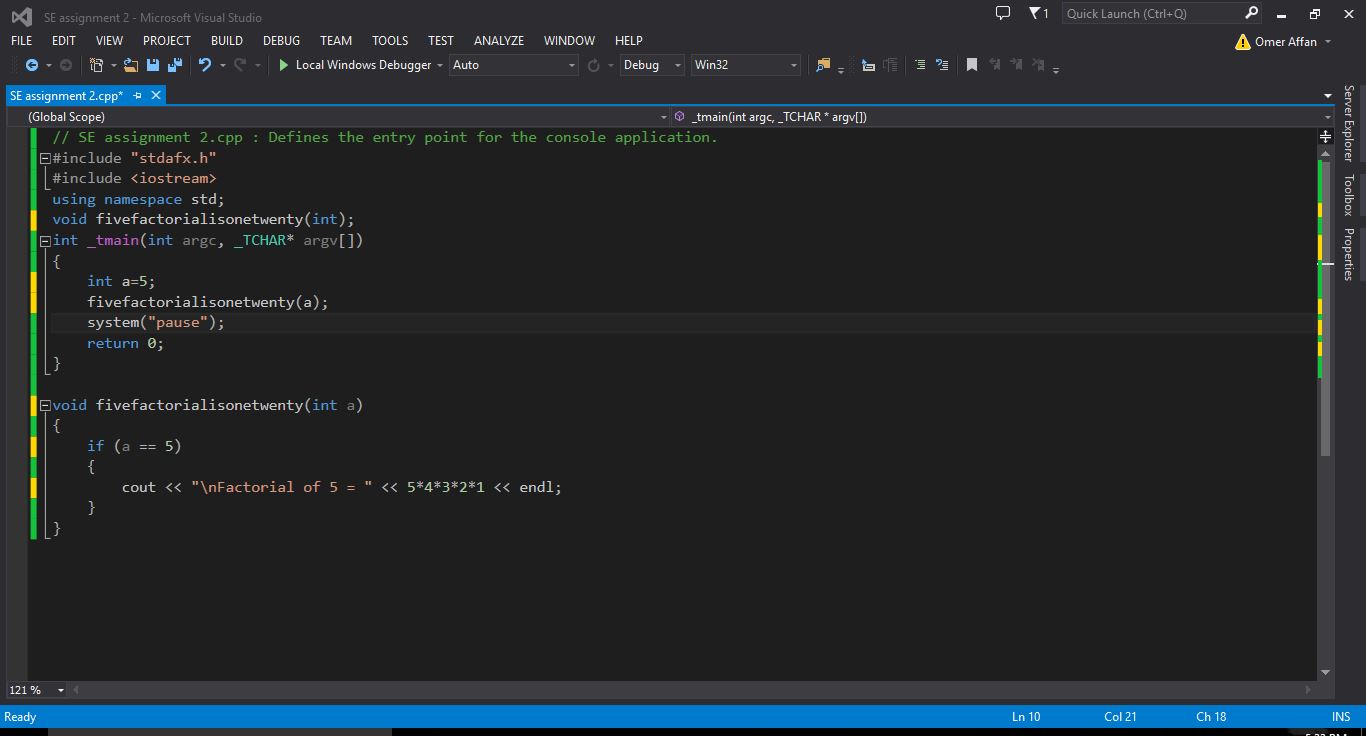
Test# 4:



Result



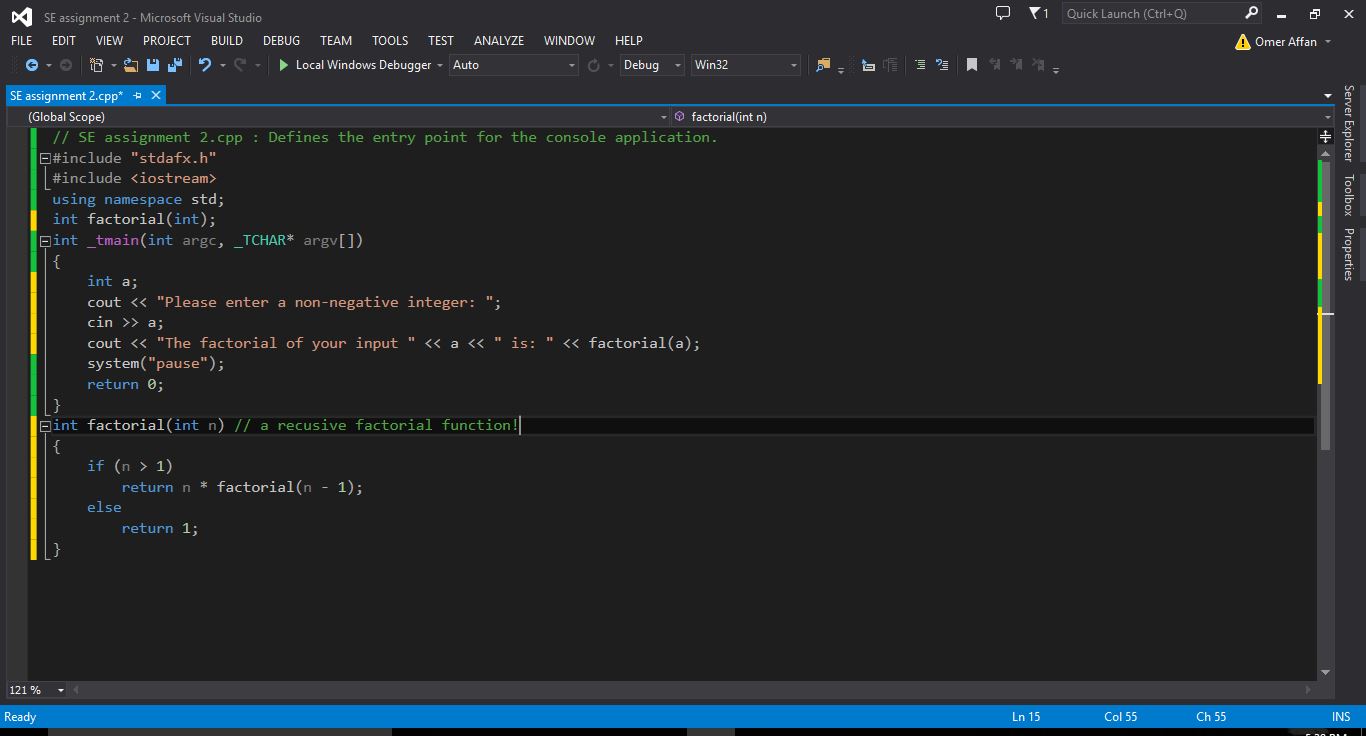
Test# 5



Result



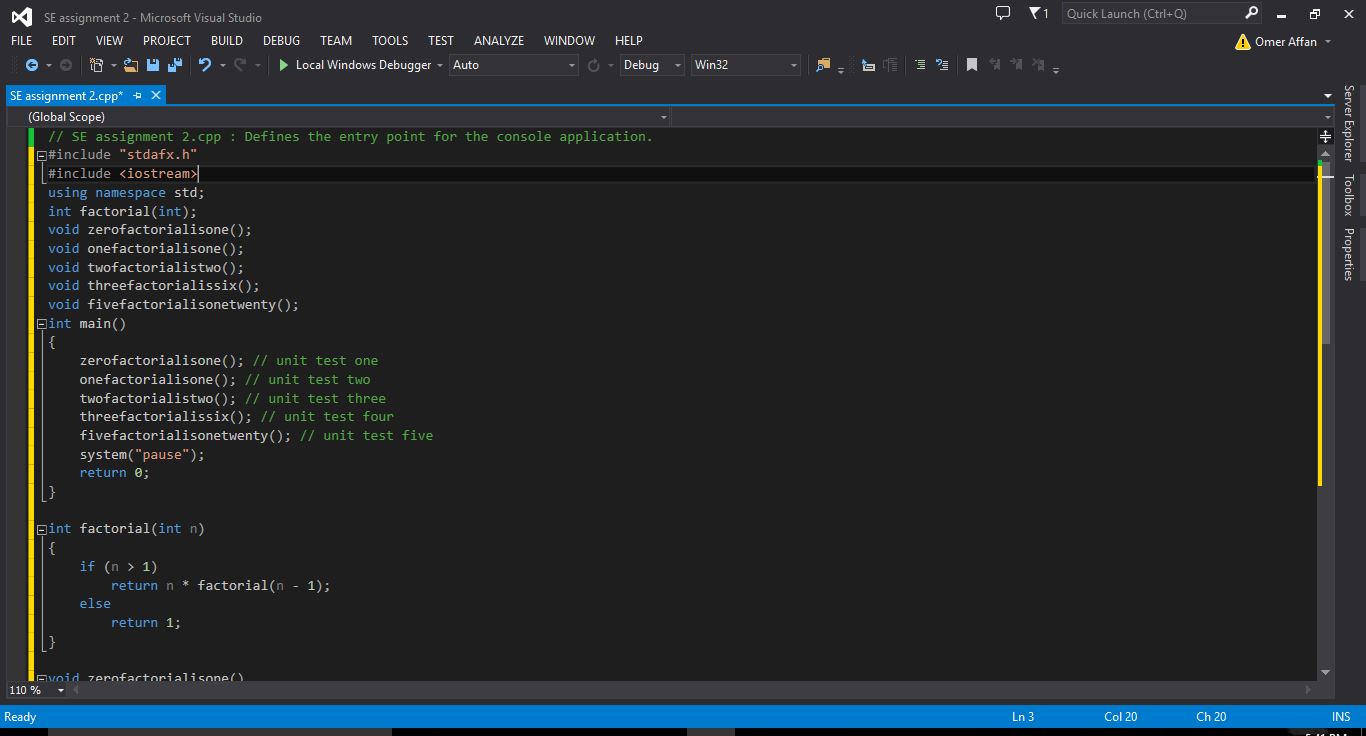
Testing formula for factorial:

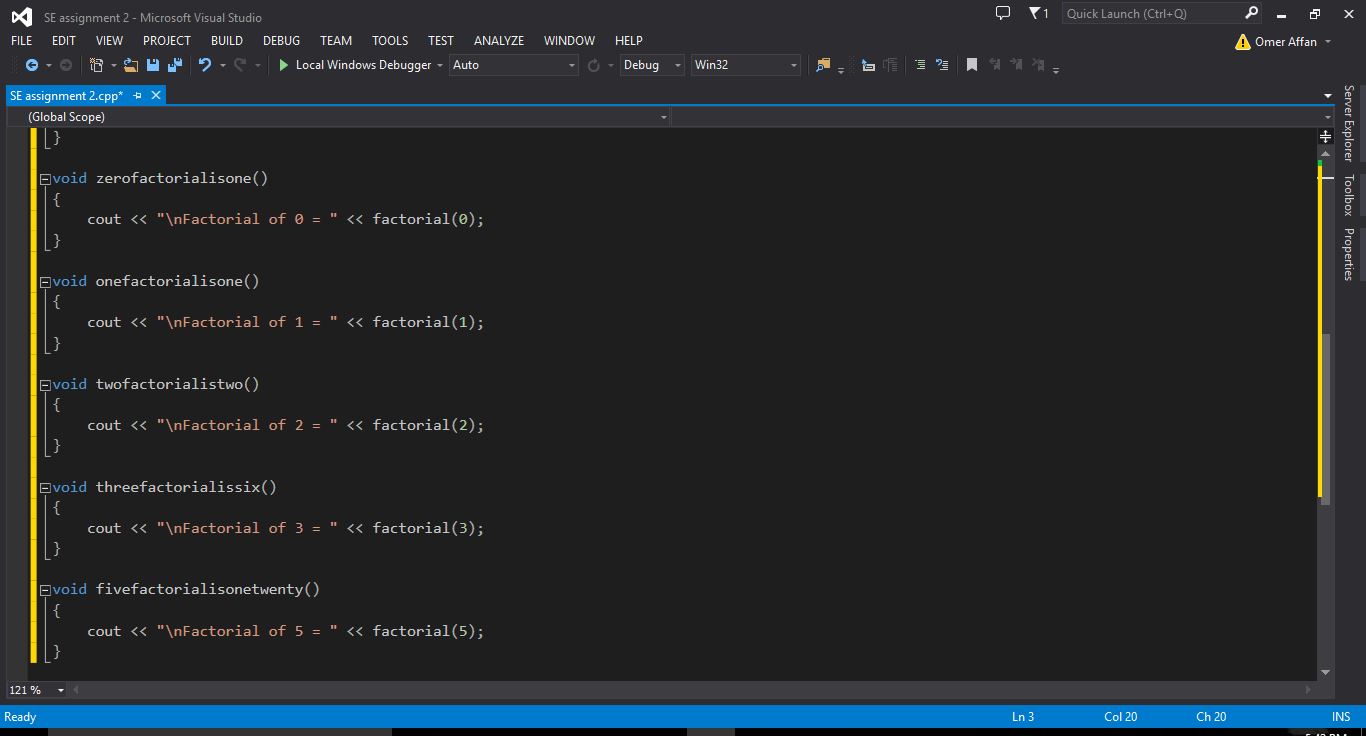


Sample input & Result



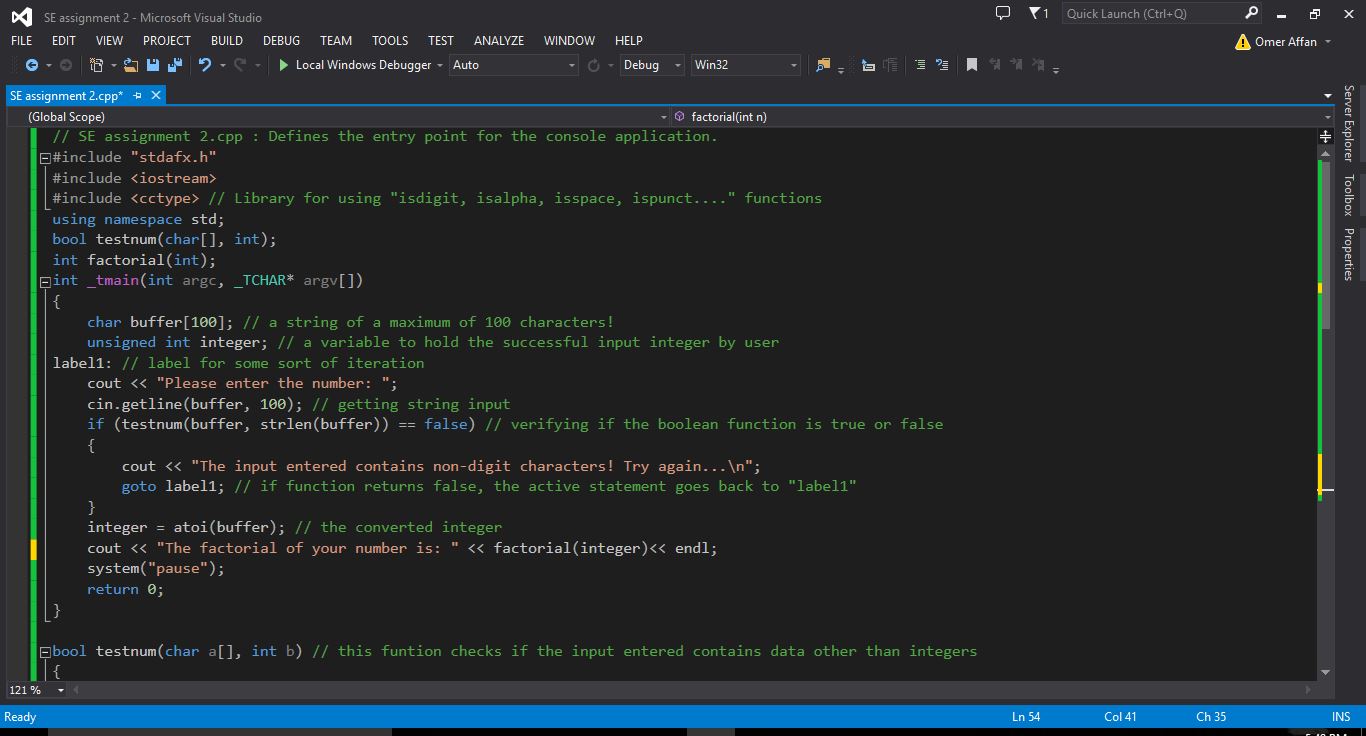
Testing Factorial Results with the derived formula

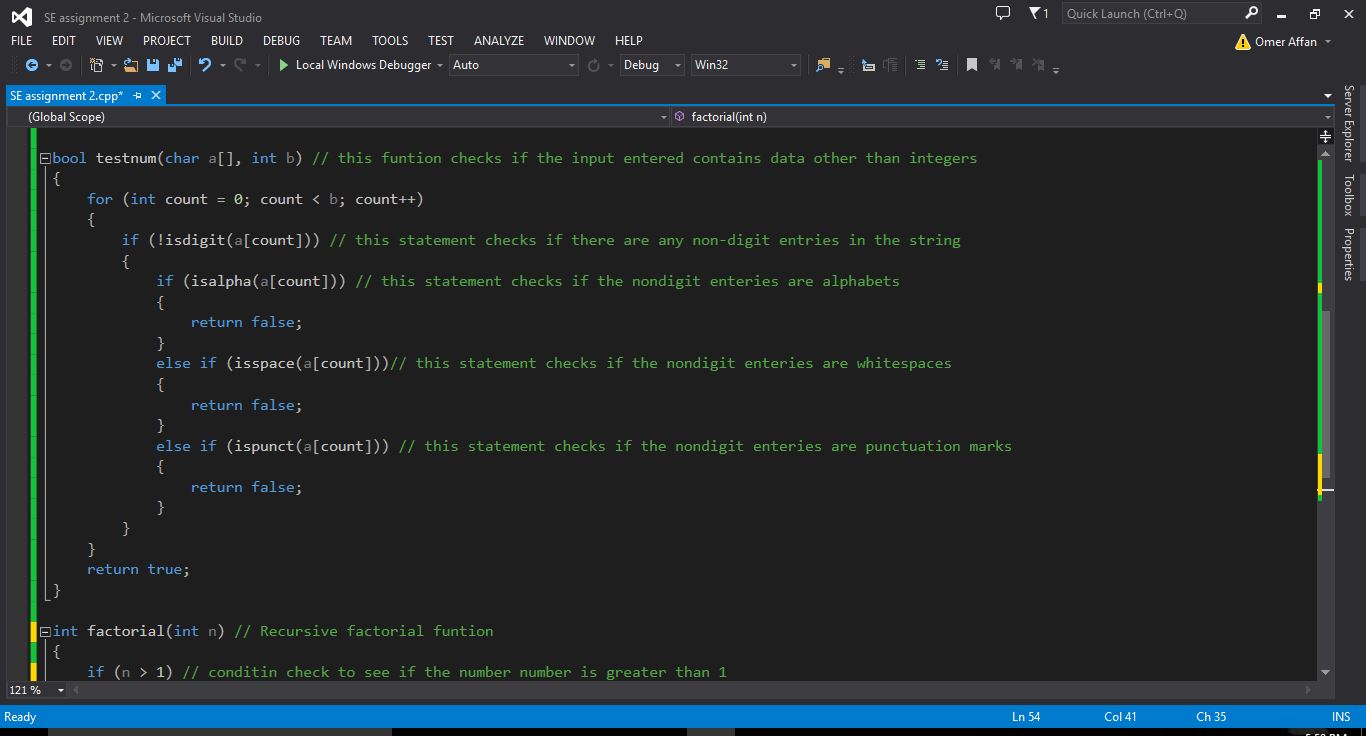


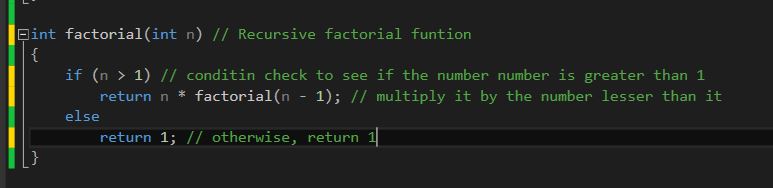




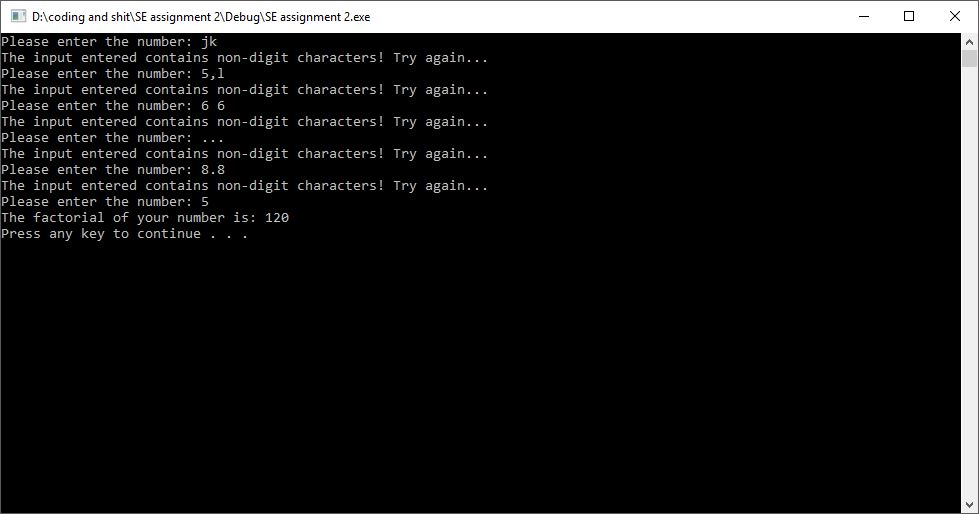
Final Code:







Sample Inputs and Outputs:



***Approach used to meet the requirements:***

TDD via Pair Programming

Navigator: Arham Gillani  
Programmer: Omer Affan