**Console Apps Solutions Ltd.**

Detailed Function Specification

|  |
| --- |
| Name of Function:  **factorial** |
| Brief Description (Purpose of Function):  **To provide the user with the opportunity to enter a number whose factorial they wish to be calculated and to calculate and display the factorial** |
| Inputs to the Function:  **userNum** |
| Outputs from the Function:  **userNum**  **fact** |
| Algorithm / PseudoEnglish statements:  (a detailed description of the actions required to fulfil the role of this function)  **Prompt the user to enter a whole number**  **Get the whole number from the keyboard**  **\*\* A check of the validity of the user’s input is NOT required \*\***  **Store the whole number provided and display it on screen**  **Calculate the factorial of userNum, where**  **factorial = fact**  **is the** [**product**](http://en.wikipedia.org/wiki/Product_(mathematics)) **of all positive integers less than or equal to userNum**  **e.g.**  **The factorial of 5 (represented mathematically as 5!) is calculated by multiplying 5 by 4 then by 3, then by 2 and finally by 1**  **5! = 5\*4\*3\*2\*1**  **= 120**    **Therefore**  **6! =6\*5!**  **= 720**  **Store and display the factorial calculated** |
| Author: **Juan Alvarez** Date: **09/11/2017** |