

EE 315 Lab Assignment for Week 05

Important Note: The problem below is to be solved individually by each student.

Download the project folder

The project assembly code is "EE315Week05.s". Go over the comments of the code. You will realise that the main function calls two functions/subroutines

- o "Factorial": calculates the factorial of R0 and writes it into R1.
- o "Power": calculates the the power of R0 to R1 ,i.e. R0(R1, and writes it into R2.
- o "AddMul": calculates the formula below. Where N is given in R0 register and and the result will be kept in R1 register. :

$$\sum_{i=1}^N (i - 1) * i = 0*1+1*2+2*3+3*4+.....+(N-1)*N$$

- The "Factorial" and "Power" subroutines are already coded. Analyse this code very carefully.
- Write the necessary codes for the "AddMul" subroutine yourself. (Factorial and Power codes will help).
- During the lab session, go over the main part of the program and debug the calls to both of these functions. Verify that the subroutines are working by checking the register values during debugging.