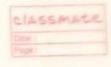
Assignment No.9



Title Find factorial of given number

problem statement -

write x86 ALP to find factorial of given integer number on command line by using recursion. Explicit stack manipulation is expected in the code.

Objective - To junderstand how to use stack segment for recursion.

Outcome = student will study recursion wing stack in ALP.

slw & hlw wed:

Core dual: i3/i5/i7
os linux 32/64 bit
editor godit
Assembler MASM
debugger gdB

PUSH - push operand onto the stack

push decrements the stack pointer by 2
if operand size aftibute of the instruction
is 16-bit of the ewise it decrements stack
pointer by a push the place the operand
on the new top of stack which is pointed
to by stack pointer.

The 80386 push esp instruction pushes the value of esp on it existed before the instruction.

This differs from the 8086, where push sp pinhas new value. (decrement by 2)

POP -> pop word from the stack.

pop replaces the previous contents of the memory,
the register of the segment register operand
with, addressed by 55:5p (address size attribute
of 16-bit) 55: ESP (address size, attribute of
32-bit.

Stack pointer SP is incremented by 2 for an operand size of 16-bit or by 4 for an operand size of 32-bit

