CSC 323 Assembly Program 2
Write an Intel x86 assembly program which will implement a RPN calculator.
This is a group program worth 100 points

READ ENTIRE PROGRAM DESCRIPTION BEFORE WRITING CODE.

- Include the program name, program number, group number, and group members names at the top of the program.
- Properly comment the program.
- Name the program GxP2.ASM where x is the group number.
- This calculator will have a 8 element stack and will be capable of performing the following operations:

  + addition
  - subtraction
  * multiplication
  / division
  X exchange the top two elements of the stack
  N negate the top element of the stack
  U Roll the stack up. The top of the stack moves to the bottom of the stack and all positions move toward the top one position. Only used, n, positions will roll.
  D Roll the stack down. The bottom of the stack moves to the top of the stack and all positions move toward the bottom one position. Only used, n, positions will roll.
  V View all active, n, elements of the stack.
  C clear the stack
  Q Quit program

  ENTER Enters the number onto the top of the stack or processes the operation.
- The calculator will process positive and negative integer numbers.
- When a number is entered it is placed on top of the stack.
- When an operation is entered the top two elements of the stack are processed and the result is placed on the top of the stack.
- After each operation the top element of the stack is displayed.
- When the stack is full, no more values will be accepted.
- Turn the program in, as an ASCII file, thumb drive, e-mail with a clear subject line. Include your name, class, and program name on the submission.
- Subroutines are used for the processes.

An example: 7 + 8 * 2 + 6 / 3

	Start	7 ENTER	8 ENTER	2 ENTER	* ENTER
Display	X	7	8	2	16
Stack top	X	7	8	2	16
	x	x	7	8	7
	x	x	x	7	x
	x	x	x	x	x
	x	x	x	x	x
	x	x	x	x	x
	x	x	x	x	x
	x	x	x	x	x

	6 ENTER	3 ENTER	/ ENTER	+ ENTER	+ ENTER
Display	6	3	2	18	25
Stack top	6	3	2	18	25
	16	6	16	7	x
	7	16	7	x	x
	x	7	x	x	x
	x	x	x	x	x
	x	x	x	x	x
	x	x	x	x	x
	x	x	x	x	x