

ECE 109 – Practice HW 9

The following is a list of programs you can complete to practice for Exam II. The answers will be posted on Wednesday, April 2 by 5pm on the course webpage.

<http://courses.ncsu.edu/ece109/lec/001>

- 1) Write a program that reads in a string from the user and validates that the string is a valid Hexadecimal number. Basically this program should make sure the only characters in the string are 0-9, A-F, or a-f. If the user inputs an invalid string print "INVALID HEX NUMBER" and prompt the user for input again.

Examples of Valid hex numbers:

AFEFFFEFF000a909

FEEF

DEAF

0

9

Examples of Invalid hex numbers:

DEAF DEAF DEAF

123456GGG

0x9999

- 2) Write a program that reads in a list of values from the user via the console. The user will enter each value followed by an enter. For simplicity assume the user will only input single digit decimal numbers (0-9).

When the user inputs something other than 0-9, the program should put the SUM into R2, and print whether the SUM was odd or even.

If I prompt the user with the string "Value?" each time, a run of the program would look like something below. (The values entered by the user are in **bold**)

Value? **5**

Value? **9**

Value? **0**

Value? **6**

Value? X

SUM is even!

- 3) Write a program that reads in a string from the user and switches lower-case letters to upper and vice-versa. An example is shown below: (user input in **bold**)

Enter a string: **HeLLo**

Flipped: hEIlO