60-266 Winter 2013 Assignment #2

Due Date: Friday, April 5, 2013

1. Write a procedure called CheckPrime that sets the Zero flag if the 32-bit integer passed in the EAX register is a prime number. Write a program that prompts the user for a positive integer between 1 and 9999 and checks if the input is within the proper range. If so, it calls CheckPrime. The program then displays an appropriate message indicating whether the number entered is a prime. Note that, you may want to handle separately the cases when the user input is 1 or 2.

2. Write a program to do the following:
   a. Declare and initialize a string called str1 consisting of a sequence of '0's and '1's.
   b. Calculate the integer value corresponding to the string and display it as an unsigned decimal number.

   For example for the string "10101100" the program should output a value of 172. You may assume str1 is a valid string with the proper characters and contains no more than 32 characters. Do <u>NOT</u> use directives such as .IF, .ENDIF etc.

3. Write a program that prompts the user for the radius of a circle (given as a floating point number). Calculate and display the circle's area and circumference. You should use the *ReadFloat* and *WriteFloat* procedures from the book's library.