Group: Ctrl See

CIS-11 - Nguyen

CIS-11 Project – Program 2

Program Name: Name Reverse

Purpose: The user will type in his or her name into the Windows console when prompted. The program will then show the user exactly what was typed in, and afterwards will show the input reversed in the next two lines. A message box will then appear explicitly telling the user that the name reversed is presented on the console, and will end once the user hits “OK” in the message box.

Terminator

Program sets a 32-bit directive, selects a flat memory model, identifies the stdcall calling convention, and allows the labels to be non-case sensitive. Also includes all necessary libraries.

Procedure - Start

Entry point of the program is start, so the program calls for user input.

Data

Contains a prototype for a procedure to be used in the program, as well as byte strings to be passed into the message box once the string is reversed. Also includes allocated doublewords up to 60 bytes to store two strings: one that the user inputs, and the other for that same string but reversed.

Procedure – reverse\_text

Reverse\_text would be the next procedure called, which is used to actually reverse the string. Program prints out a message to show what the string reversed will look like, followed by a procedure used to reverse the string, and finally prints out the data stored in the address where the reversed string is located. Procedure ends in a newline before returning.

Procedure – original\_text

Upon re-entry into the start procedure, the program then invokes the original\_text procedure, and passes in the user-inputted string, now in the label originalstr, as a parameter. The program then prints a message showing what was typed, followed by what was actually typed, then outputs a newline before returning back to start.

Input

Program prompts for user to input a string, and stores that in pre-allocated memory. Once the user terminates the string by pressing ENTER, control is passed back to start.

Terminator

With the program completing its objective, a message box is displayed, telling the user that their name reversed is in the same console window they typed it in. Once OK is hit, program exits, and the start procedure ends.