**CSE3030-02 Assembly Programming (Spring 2021)**

**Final Exam**

**2021.06.16 (WED)**

**Time**

* 08:30 - 09:00 Identity Verification, Question Distribution
* 09:00 - 10:30 Test

|  |
| --- |
| Total 3 questions, Total score: 50 points   1. Question 1 [Triangle Star]: 15 points 2. Question 2 [Reverse String]: 15 points 3. Question 3 [Palindrome]: 20 points |

**Program 1 [15 points]**

Write a program that prints stars in Triangle.

NOTE:

1) Each test will have single integer as input.

2) Every Input will be bigger than 0. You don’t have to care about the exceptions.

3) The size of star will not exceed 100.

1. Each program runs only one time.

Example

|  |
| --- |
| C:\>s171234↲  Input : 4  \*  \*\*  \*\*\*  \*\*\*\*  C:\> ↲  C:\>s171234↲  Input : 7  \*  \*\*  \*\*\*  \*\*\*\*  \*\*\*\*\*  \*\*\*\*\*\*  \*\*\*\*\*\*\*  C:\> ↲  C:\>s171234↲  Input : 11  \*  \*\*  \*\*\*  \*\*\*\*  \*\*\*\*\*  \*\*\*\*\*\*  \*\*\*\*\*\*\*  \*\*\*\*\*\*\*\*  \*\*\*\*\*\*\*\*\*  \*\*\*\*\*\*\*\*\*\*  \*\*\*\*\*\*\*\*\*\*\*  C:\> ↲ |

**Program 2 [15 points]**

Make a program that takes the string as input from the user and prints the reversed string as output. In this assignment, you should make a procedure, which reads a string from the memory, and print the string in reverse order. The sample for your program is shown in below box.

NOTE:

1. The string length should not exceed 40 characters.
2. Enter character (<ent>) is not counted in string length.
3. If input string is larger than 40 characters, ignore the string and get input again.

Example

|  |
| --- |
| C:\> s171234↲  Type\_A\_String\_To\_Reverse: I like music.↲  Reversed\_String: .cisum ekil I  Type\_A\_String\_To\_Reverse: I like assembly programming.↲  Reversed\_String: .gnimmargorp ylbmessa ekil I  Type\_A\_String\_To\_Reverse:↲  Bye!  C:\> |

**Program 3 [20 points]**

A palindrome is a word, number, phrase, or other sequence of characters which reads the same backward as forward, such as madam or racecar.

Write a program that checks the input string is palindrome or not.

NOTE:

1) String length does not exceed 20.

2) Print the Result like the example below.

1. Program checks palindrome one time and then exit.

Example

|  |
| --- |
| C:\>s171234↲  Is this string palindrome? : racecar  It's a palindrome!  C:\> ↲  C:\>s171234  Is this string palindrome? : assembly  It's NOT a palindrome  C:\> ↲ |

**Submission:**

* Submission Due Date: 6/16 (Wed) 10:30 AM ***(late submission is not allowed)***
* You need to submit **three code files, each corresponds to each task**
* Name the .asm files with the last 6-digits of your student id and an underscore (‘\_’) and the number of the program. (e.g. **171234\_1.asm, 171234\_2.asm, 171234\_3.asm**)
* Compress source code files into **zip format** and name it with your last 6-digits. (e.g. 171234.zip)
* Please submit your test under **Final Exam** in Assignment menu in Cyber Campus

**Grading Policy:**

* If there is an assemble error, you will get 0 point.
* You will get minus 10% point for each wrong file name.
* Your program will be tested with different input test cases.
* **Don’t use screen clear function such as Clrscr, (if use, -50%)**

---- 수고 하였습니다. 즐거운 방학 되세요. ----