Homework 2

CDA 3104 Computer Organization and Assembly Language Programming
Due date: Oct. 2, 2013 11:59pm

Requirements:

1. This assignment as well as other assignments in this class must be finished on Windows operating system.
2. Zip your programs and submit the zip file on Canvas.
3. You must add enough comments in your programs.

Part I:

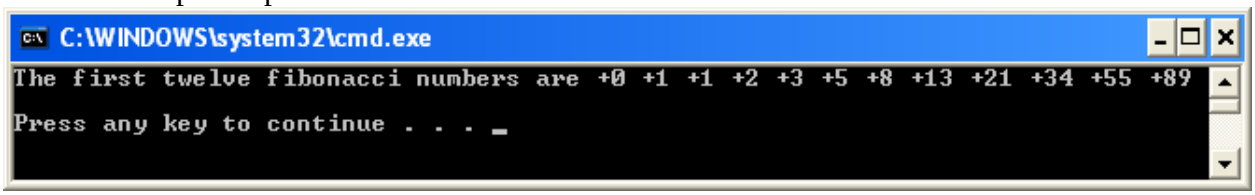
Write a program that uses loops to calculate and display the first twelve Fibonacci numbers, each two numbers are delimited by a space. Fibonacci number is defined as follows:

Fibonacci(0)=0
Fibonacci(1)=1
Fibonacci(n)=Fibonacci(n-1)+Fibonacci(n-2)

Your program must contain two phases as follows:

1. Find the first twelve Fibonacci numbers and save them in a **DWORD array** without displaying them.
2. Display the Fibonacci numbers in the DWORD array.

Here is a sample output:



Part II

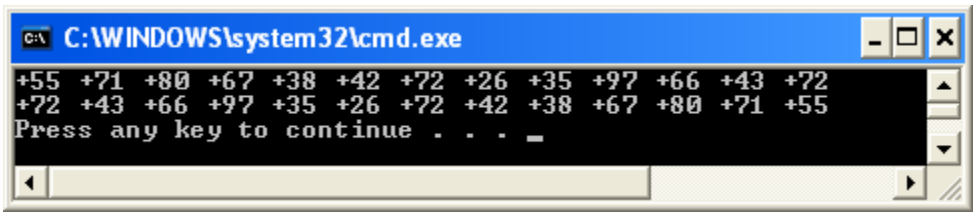
Write a program to do the following:

1. Within a DWORD array, use a loop to assign each element a random number [0,99)
2. Use another loop to display each number. Every two numbers are delimited by an empty space
3. Use the third loop to reverse the elements in the array.
4. Use the last loop to display the reversed array.

You must use the following data segment in your program without any change or addition:

```
.data
ARRAY_SIZE = 13
RAND_MAX = 100
HALF_ARRAY_SIZE = ARRAY_SIZE/2
rands DWORD ARRAY_SIZE dup(0)
```

Here is a sample output:



Grading Policies:

Part I	
Correct calculation of Fibonacci numbers	40%
Correctly display the Fibonacci numbers	10%

Part II	
Correct generation of rand numbers	20%
Correct reversion of array element	20%
Correctly display reversed array	10%