Michael Gil

**Assignment 4 and 5**

**4.2.8 Section Review**

1. inc val2

2. sub eax, val3

3. mov ax, val4

sub val2, ax

4. CF = 0, SF = 1.

5. OF = 1, SF = 1.

6. a) CF = 1 SF = 0 ZF = 1 OF = 0

b) CF = 0 SF = 1 ZF = 0 OF = 1

c) CF = 0 SF = 1 ZF = 0 OF = 0

**4.3.8 Section Review**

1. FALSE

2. FALSE

3. TRUE

4. FALSE

5. TRUE

**4.4.5 Section Review**

4. True.

5. a) AL = 10h

b) AL = 40h

c) AX = 3Bh

d) EDX = 3

e) EDX = 3

f) EAX = 2

**4.10 Programming Exercise Question 7**

**Had issues with this one, tried 32 and 64 bit, best I could come up with. Vc 2017 is a pain.**

|  |
| --- |
|  |
|  |

|  |
| --- |
| INCLUDE Irvine32.inc |
|  |

|  |
| --- |
| WriteString PROTO |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
|  |
| ; data source and target bytes for char reversal |

|  |
| --- |
| .data |
|  |

|  |
| --- |
| source BYTE "This is the source string",0 |
|  |

|  |
| --- |
| target BYTE SIZEOF source DUP('#') |
|  |
|  |

|  |
| --- |
|  |
| ; main code as usual |

|  |
| --- |
| .code |
|  |

|  |
| --- |
| main PROC |
|  |

|  |
| --- |
| mov esi,0 |
|  |

|  |
| --- |
| mov edi,LENGTHOF source - 2 |
|  |

|  |
| --- |
| mov ecx,SIZEOF source |
|  |

|  |
| --- |
| L1: |
|  |

|  |
| --- |
| mov al,source[esi] |
|  |

|  |
| --- |
| mov target[edi],al |
|  |

|  |
| --- |
| inc esi |
|  |

|  |
| --- |
| dec edi |
|  |

|  |
| --- |
| loop L1 |
|  |

|  |
| --- |
| mov edx, OFFSET target |
|  |

|  |
| --- |
| call WriteString |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| exit |
|  |

|  |
| --- |
| main ENDP |
|  |

END main