

Lab 3 Report

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Registered Lab Session: 3A

Bo Tsai

EECS 20

Table of Contents:

Code for Lab, Page 2-4

Screenshot for Before, Page 4

Screenshot for After, Page 5

Code for Lab 3

.ORIG x2000

SOP AND R0, R0, #0
 LEA R0, TEXT1
 TRAP x22

TEXT1 .STRINGZ "\nEnter 1 for converting Fahrenheit to Celsius, or 2 to exit.\n"

 AND R0, R0, #0 ; CLEARS REGISTERS 0 AND 1 TO CHECK
FOR INPUTS

 AND R1, R1, #0

 TRAP x20

 ADD R1, R1, #15
 ADD R1, R1, #15
 ADD R1, R1, #15
 ADD R1, R1, #5
 NOT R1, R1
 ADD R1, R1, #1

 ADD R1, R1, R0 ; ADDING R0 AND R1 TO SEE IF ITS
NEGATIVE OR POSITIVE FOR EACH INPUT

 BRz EOP ; GOES TOWARDS THE END OF THE
PROGRAM TO GIVE FINAL STATEMENT AND TRAP COMMAND

 AND R1, R1, #0
 ADD R1, R1, #15
 ADD R1, R1, #15
 ADD R1, R1, #2

 AND R2, R2, #0 ; -32
 ADD R2, R2, R1
 NOT R2, R2
 ADD R2, R2, #1

 L5 AND R3, R3, #0 ; CLEARS REGISTERS FOR CALCULATION
OF CELSIUS

```
AND R4, R4, #0
AND R5, R5, #0
AND R6, R6, #0
```

```
ADD R3, R1, R2          ; ADDS -32 INTO R1 AND PUTS IT INTO R2
```

```
ADD R3, R3, -2
BRn L4
```

```
LL  ADD R4, R4, #1
    ADD R3, R3, -2
    BRzp LL
```

```
L4  AND R0, R0, #0          ; DISPLAYS RESULT
    ADD R5, R5, #15
    ADD R5, R5, #15
    ADD R5, R5, #15
    ADD R5, R5, #3
    ADD R0, R5, R4
    TRAP x21
```

```
ADD R1, R1, #1          ; INCREMENTS R1
```

```
ADD R6, R6, #15
ADD R6, R6, #15
ADD R6, R6, #15
ADD R6, R6, #5
NOT R6, R6
ADD R6, R6, #1
```

```
ADD R6, R6, R1
```

```
BRnz L5
BRnzp SOP
```

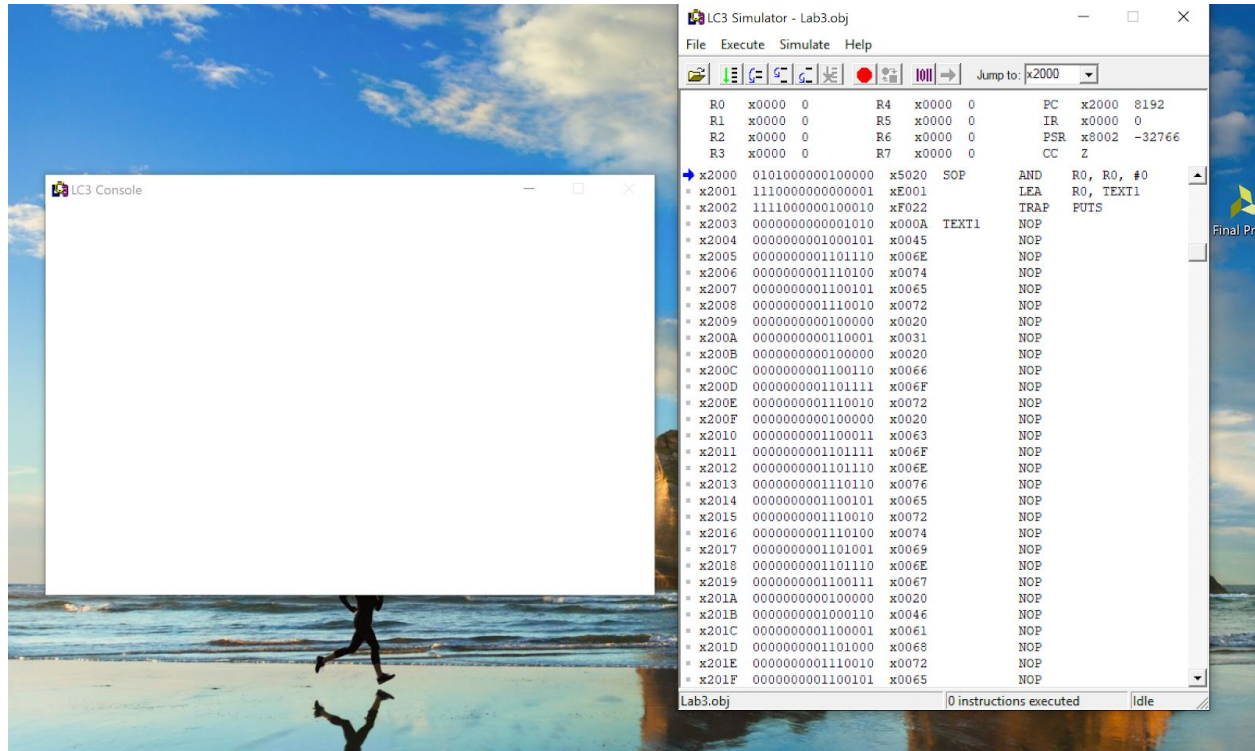
```
EOP AND R0, R0, #0
    LEA R0, TEXT2
    TRAP x22
```

```

TEXT2      .STRINGZ "Goodbye Adrian"
TRAP x25
.END

```

Screenshot for BEFORE



Screenshot for AFTER

