CSE 3666 - Lab 4
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Submit a report in PDF format. The report should have the following.

Code in print_ns() function, with concise comments. Clearly mark each of the five steps in the function.

```
# function
print_ns:
        addi sp, sp, -128       # move stack pointer down 128 bytes (step 2)
        add a1, x0, sp          # store address of sp in a1

        addi sp, sp, -4         # push address of a0 to stack (step 1)
        sw a0, 0(sp)

        addi sp, sp, -4         # push return address to stack (step 1)
        sw x1, 0(sp)

        jal ra, remove_spaces   # call to function (step 3)

        lw x1, 0(sp)            # pop return address from stack
        addi sp, sp, 4

        # load result into a0 and print result (step 4)
        li a7, 4
        add a0, x0, a1
        ecall

        lw a0, 0(sp)            # pop a0 address from stack (step 5)
        addi sp, sp, 4

        addi sp, sp, 128        # move stack pointer back to original position (step 5)

        jr      ra              # exit function

        # TODO
        # allocate a byte array of 128 bytes on stack to save result
        # call remove_spaces
        # print the result string
```

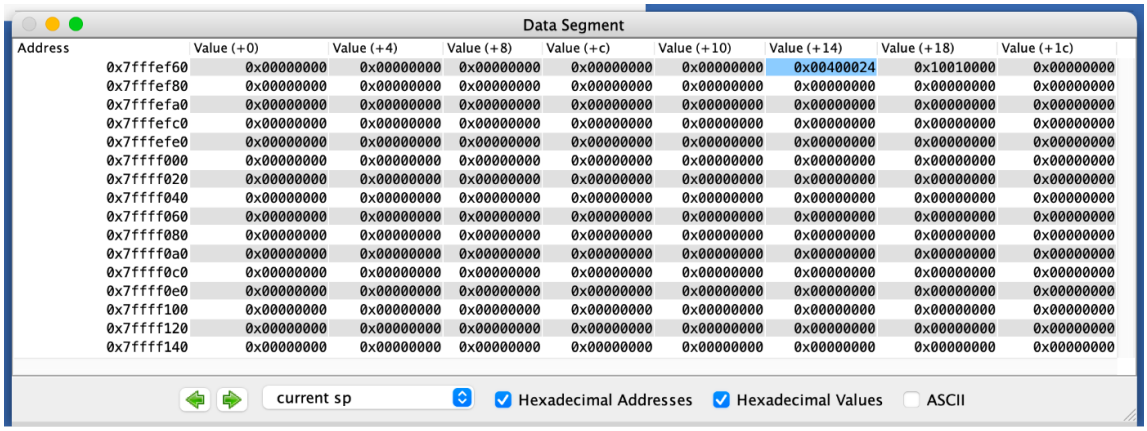
A screenshot of "Run I/O" tab showing that the program works and can process multiple lines from the console. Select some input lines yourself.

```
-- program is finished running (0) --

hey hey hey
heyheyhey
yo 12345 ay ay          ay
yo12345ayayay
    2                          3
23


-- program is finished running (0) --
```

A screenshot of Data Segment window showing the stack after registers are saved on the stack, i.e., after Step 1 in print_ns(). Find the saved return address on the stack and write down its value and address in text.



The saved return address after step 1 is 0x00400024