Midterm 2

COMP – 520, Spring 2024

Please fill in today's date (YYYY-MM-DD)

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Write your name and PID here:

_____

Write your ALIAS here:

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Your alias and PID should be written on ALL exam pages.
Your alias represents you and will be equivalent to your name
throughout the exam.

Instructions

1. Open notes. (Anything you wrote down)
2. Open course website. (Including lectures)
3. Limited IDE access. (IntelliJ, Eclipse, Notepad, etc.)
    a. IDE access is given so that you can reliably see the syntax highlighting of your code, and that's it!
    b. You may open your IDE but not write any new code.
    c. You may NOT compile any code. (javac)
    d. You may NOT run anything in your IDE.
4. No websites other than the course website/gradescope.
    a. No Piazza, Canvas, Sakai, email, etc.
    b. You MAY use the resources specified for PA4.
5. No phones at all, even if you forgot your laptop.
6. No collaboration. No communication with anyone other than instructors, TAs, and proctors.

7. Be concise in your answers.
8. You get about the full class period (70 minutes).
9. Sign below with either your name or alias.

I pledge I have not given nor received unauthorized aid on this exam:

_____

Cheat Sheet

x64:

    pop rm: Stores data at [rsp] into rm, and rsp += 8

    push rm: Does rsp -= 8, then stores rm at [rsp]

    cmp rm,r: Compares rm to r

    je/jz label: Jump if equal/zero to "label"

    jmp label: Unconditional jump to "label"

    mov rm,r: Takes r, stores it in rm

    mov rm,imm32: Stores imm32 in rm

RM examples:

Form	Example
r	# rdx
[rdisp + disp]	# [rbp-10]
[ridx*mult + disp]	# [rcx*8+11223344]
[rdisp + ridx*mult + disp]	# [rbx+rsi*4-8]
[disp]	# [11223344]

General Registers:

    rax, rcx, rdx, rbx, rsp, rbp, rsi, rdi

    r8, r9, r10, r11, r12, r13, r14, r15