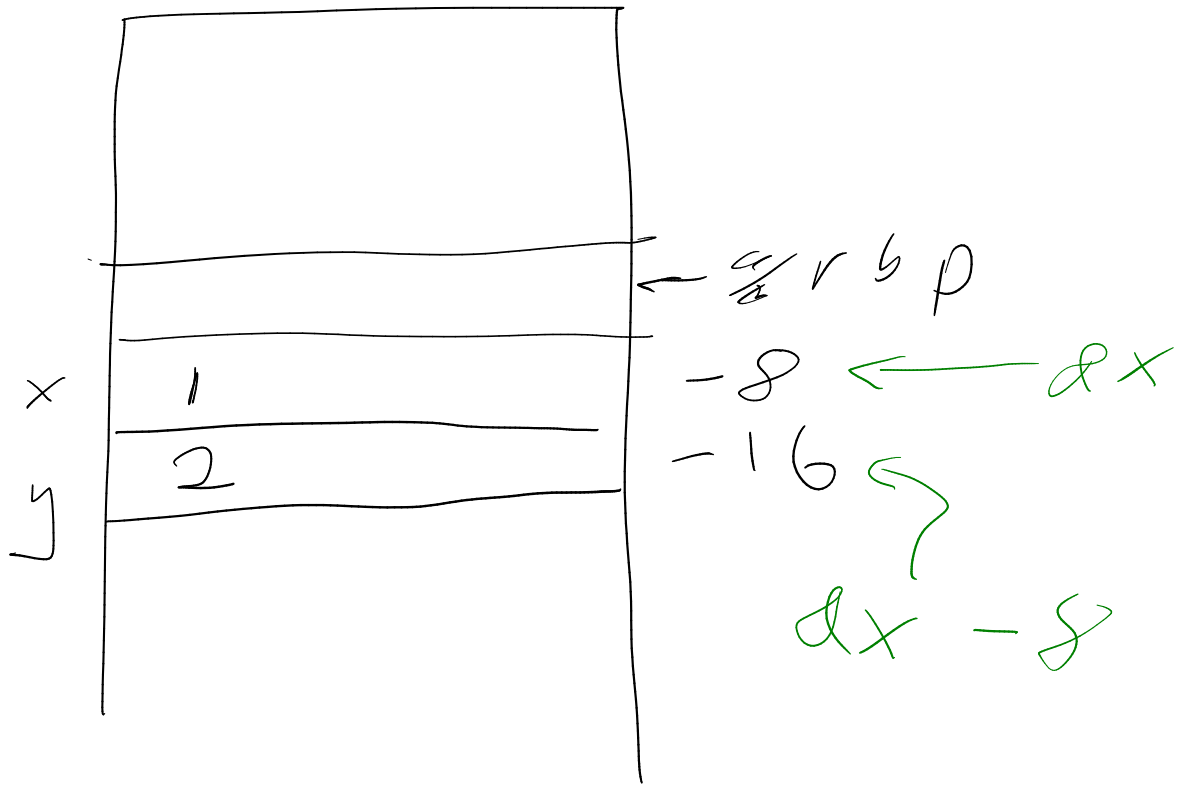


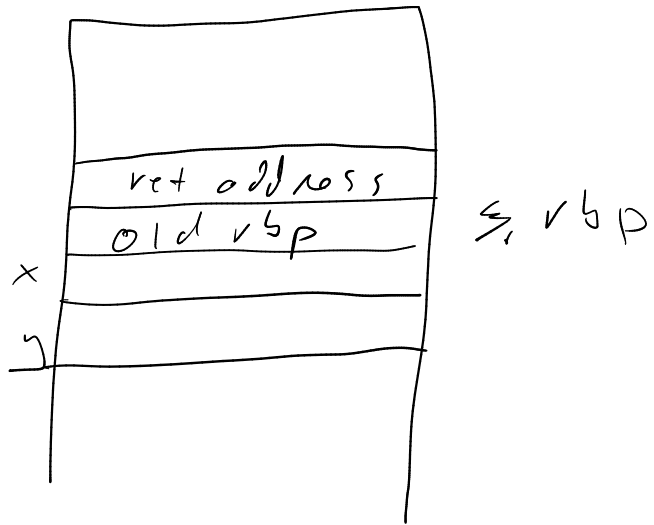
Diagram illustrating a stack operation:

```

    graph TD
      Stack["stack"]
      Stack --> Pop["pop & ord i"]
      Pop --> Call["call f"]
      Call --> Push["push & ord ax"]
  
```

The stack is represented by a rectangle. The label "codegen-expr" is written to the right of the stack. The operations listed are: "pop & ord i", "call f", and "push & ord ax".





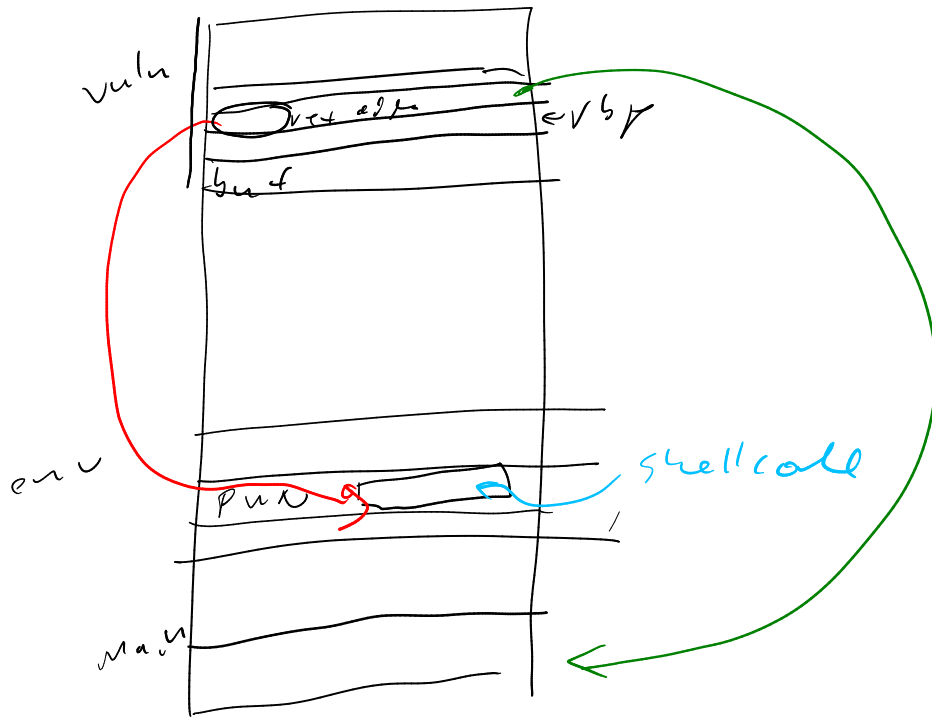
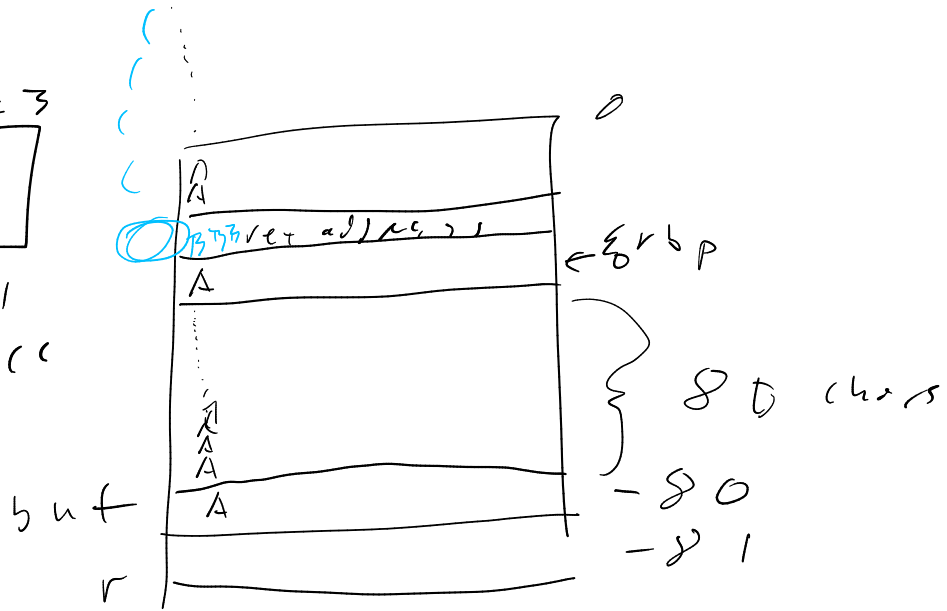
AAA.....

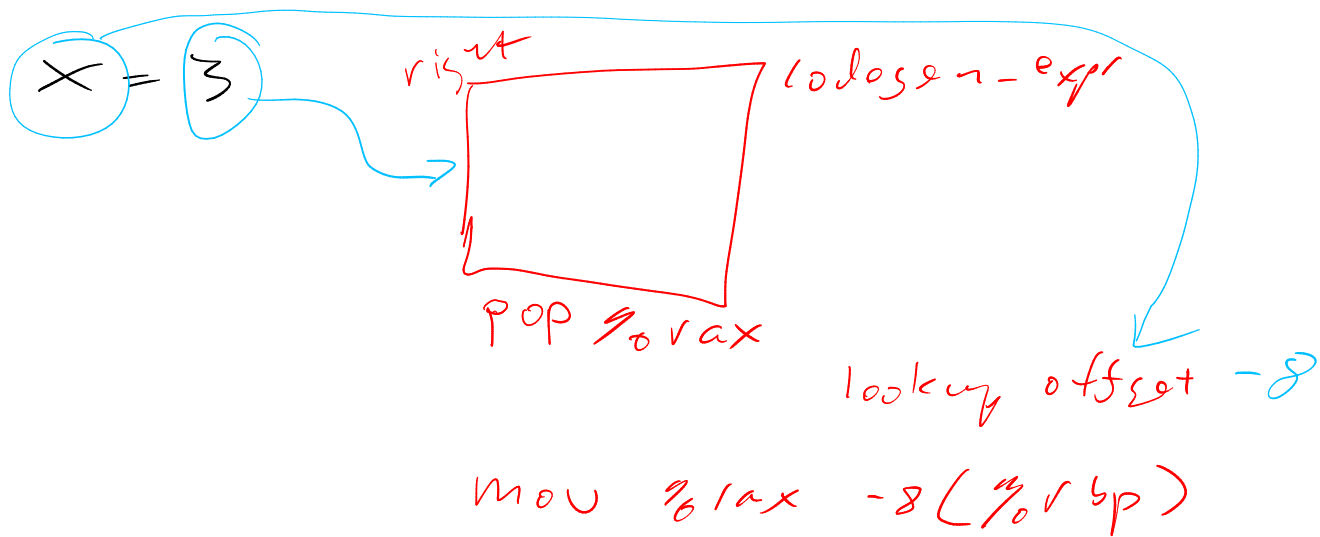
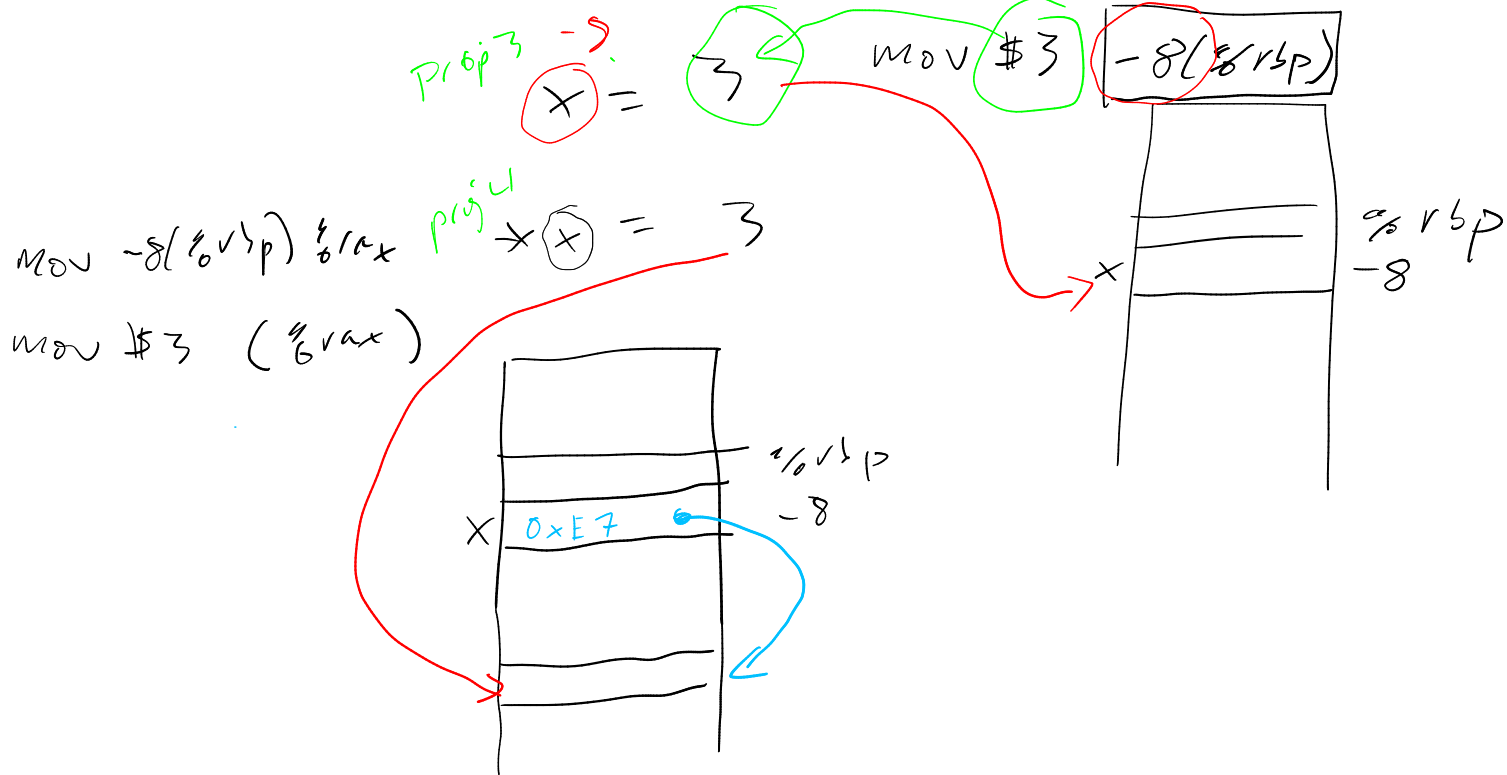
0xE1 0xE2 0xE3



0 1 2 3 4

AA... BB... CCC





`MOV_TO_OFFSET("%rax", offset)`

if(x < y)  
return 1  
else return 0

cmp  
j

!(x < y) ==> x >= y

jg >  
jge >=  
jl <  
jle <=

$x < y$   
%rax %rbx

mov %rbx, %rax  
cmp %rbx, %rax

cmp %rax, %rbx

y < x

jge label if  $x \geq y$

mov \$1, %rax  
jmp end

label:

mov \$0, %rax

end:

$x < y \Rightarrow y > x$   
 $\Rightarrow \neg(y \leq x)$

$x < y \Rightarrow x - y < 0$   
 $\neg(x < y) \Rightarrow \neg(x >= y) = \neg(x - y \geq 0)$

= <

= != < > <= >=