

Assignment 6

Hacking in C

March 24th, 2016

Initial state

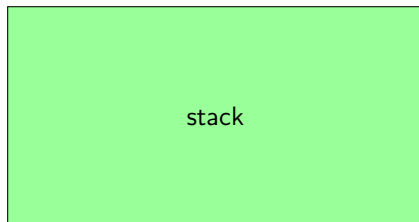
RAX 0x??????????????????

RBX 0x??????????????????

RDX 0x??????????????????

RDI

RSI



RSP

xor %rax, %rax

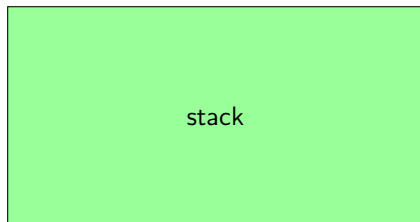
RAX 0x????????????????

RBX 0x????????????????

RDX 0x????????????????

RDI

RSI



RSP

```
xor %rax, %rax
```

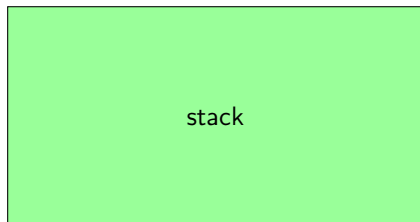
RAX	0x????????????????
-----	--------------------

RBX	0x????????????????
-----	--------------------

RDX	0x????????????????
-----	--------------------

RDI

RSI



RSP

xor %rax, %rax

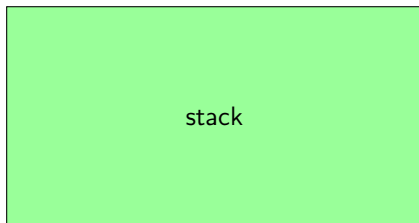
RAX 0x0000000000000000

RBX 0x??????????????????

RDX 0x??????????????????

RDI

RSI



RSP

xor %rdx, %rdx

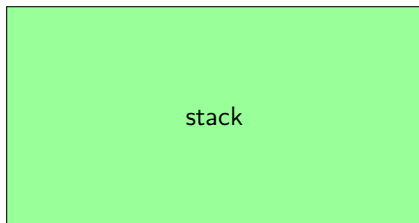
RAX	0x0000000000000000
-----	--------------------

RBX	0x????????????????
-----	--------------------

RDX	0x????????????????
-----	--------------------

RDI

RSI



RSP

xor %rdx, %rdx

RAX	0x0000000000000000
-----	--------------------

RBX	0x????????????????
-----	--------------------

RDX	0x????????????????
-----	--------------------

RDI

RSI



RSP

xor %rdx, %rdx

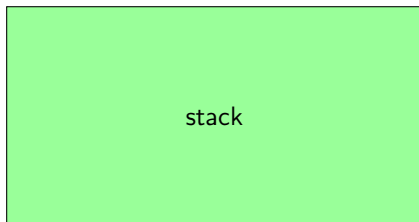
RAX	0x0000000000000000
-----	--------------------

RBX	0x????????????????
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



RSP




```
mov $0x68732f6e69622f41, %rbx
```

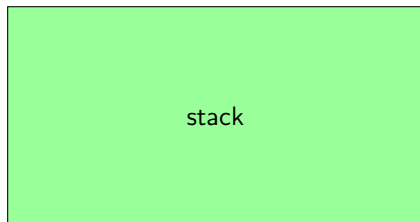
RAX	0x0000000000000000
-----	--------------------

RBX	0x??????????????????
-----	----------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



RSP

```
mov $0x68732f6e69622f41, %rbx
```

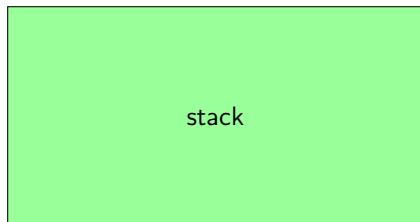
RAX	0x0000000000000000
-----	--------------------

RBX	0x????????????????
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



RSP

```
mov $0x68732f6e69622f41, %rbx
```

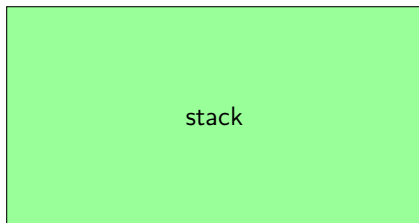
RAX	0x0000000000000000
-----	--------------------

RBX	0x68732f6e69622f41
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



RSP

shr \$0x8, %rbx

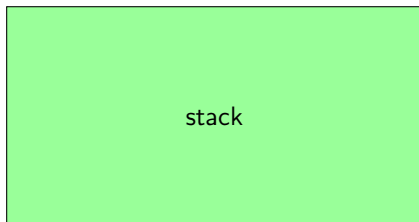
RAX	0x0000000000000000
-----	--------------------

RBX	0x68732f6e69622f41
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



RSP

shr \$0x8, %rbx

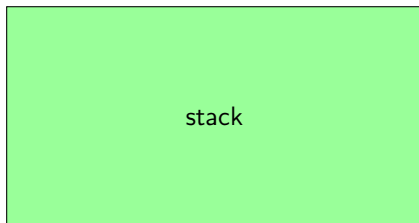
RAX	0x0000000000000000
-----	--------------------

RBX	0x68732f6e69622f41
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



RSP

shr \$0x8, %rbx

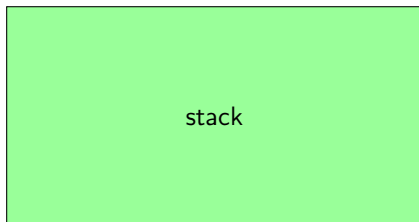
RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



RSP

push %rbx

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



RSP

push %rbx

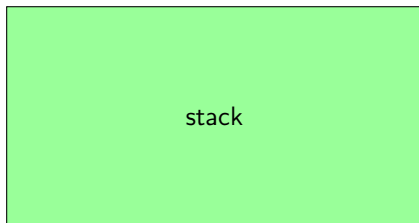
RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

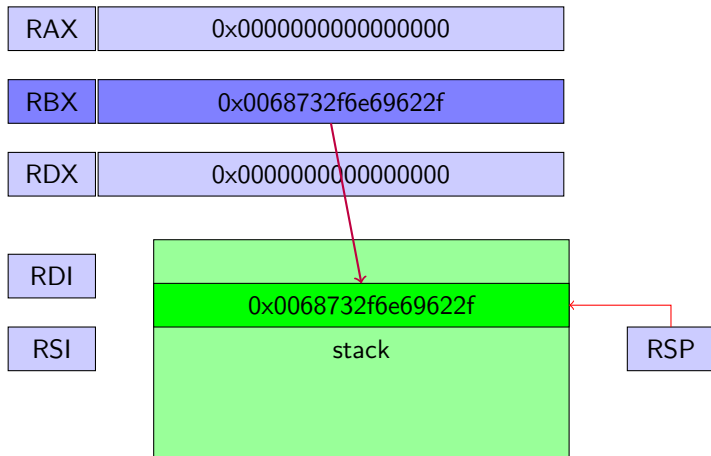
RDI

RSI



RSP

push %rbx



mov %rsp, %rdi

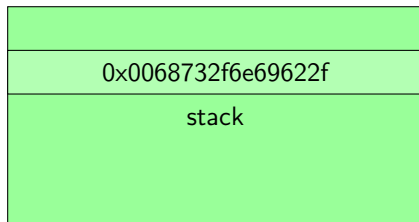
RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



RSP

mov %rsp, %rdi

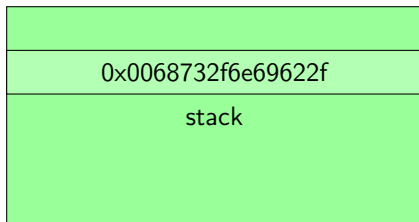
RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



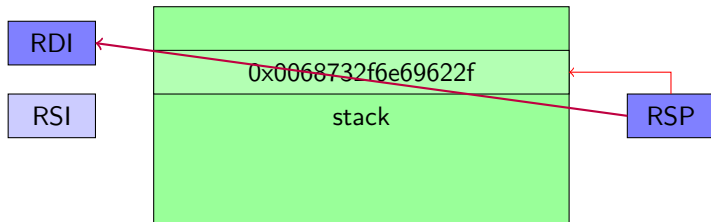
RSP

mov %rsp, %rdi

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

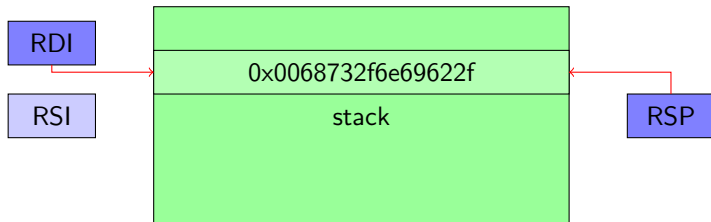


mov %rsp, %rdi

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------



push %rdx

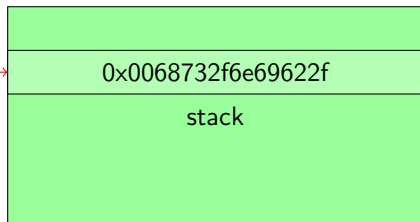
RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

RDI

RSI



RSP

push %rdx

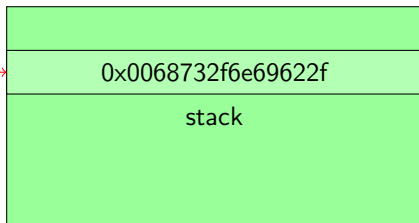
RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

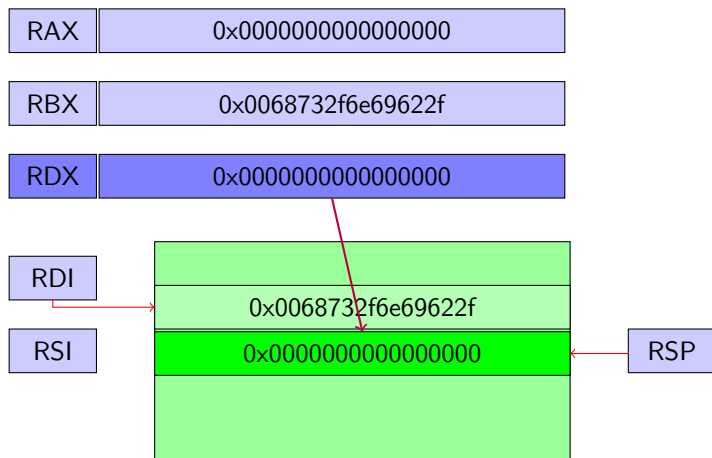
RDI

RSI



RSP

push %rdx

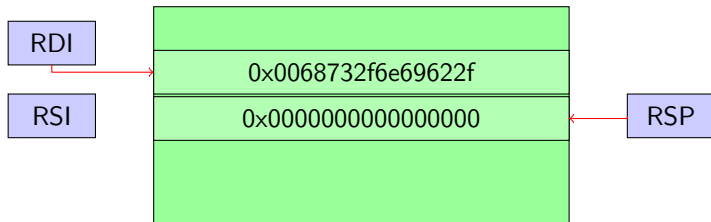


push %rdi

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

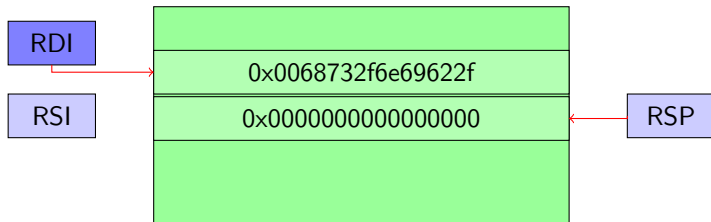


push %rdi

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

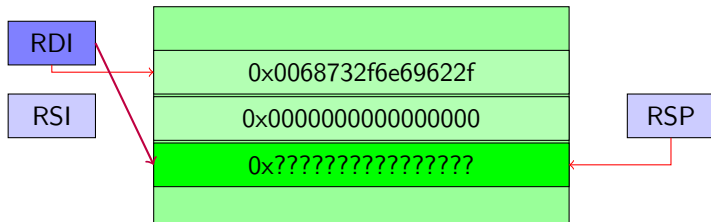


push %rdi

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

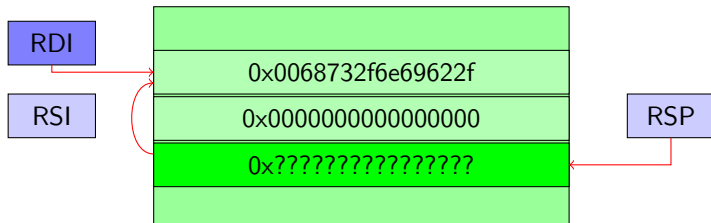


push %rdi

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

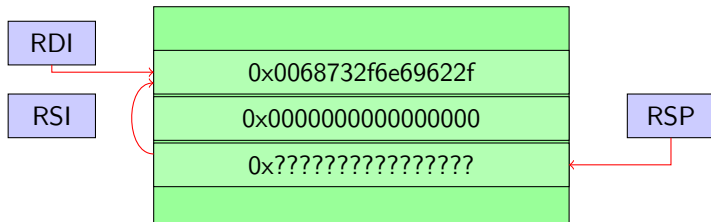


mov %rsp, %rsi

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

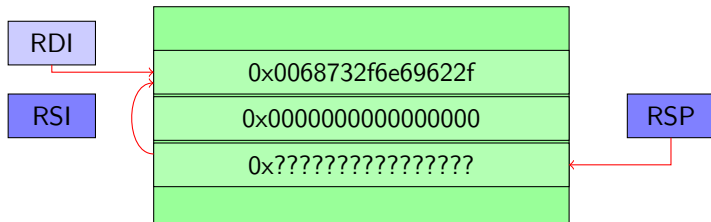


mov %rsp, %rsi

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

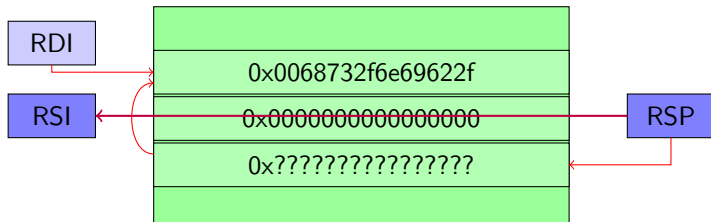


mov %rsp, %rsi

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

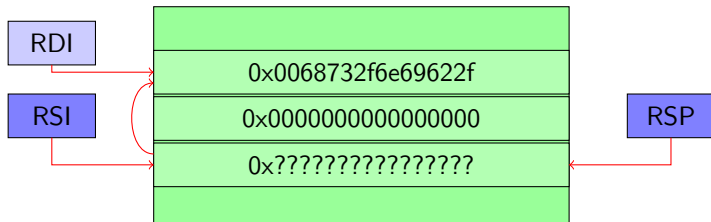


mov %rsp, %rsi

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

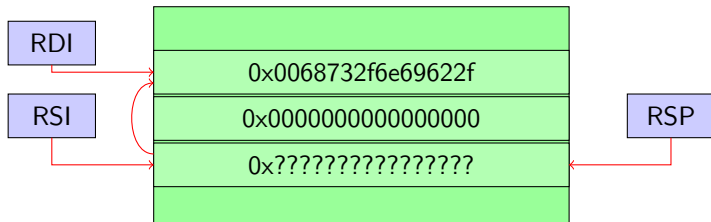



```
mov %0x3b, %al
```

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

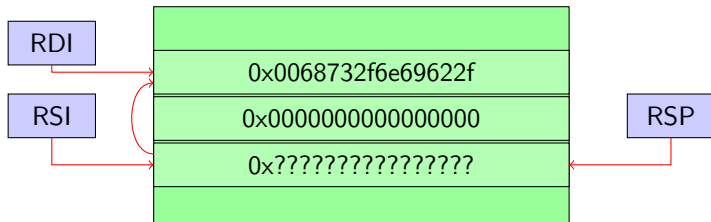


```
mov %0x3b, %al
```

RAX	0x0000000000000000
-----	--------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

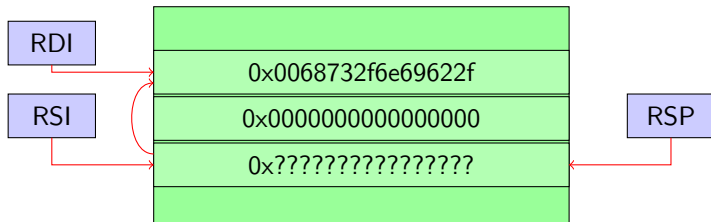


```
mov %0x3b, %al
```

RAX	0x0000000000000003b
-----	---------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------

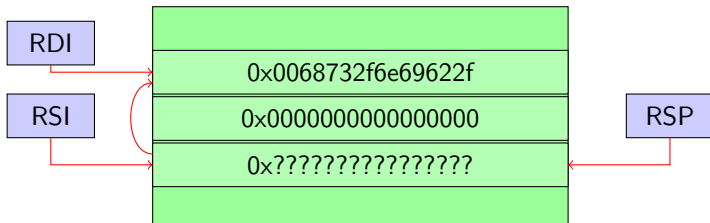


syscall

RAX	0x0000000000000003b
-----	---------------------

RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x00000000000000000
-----	---------------------

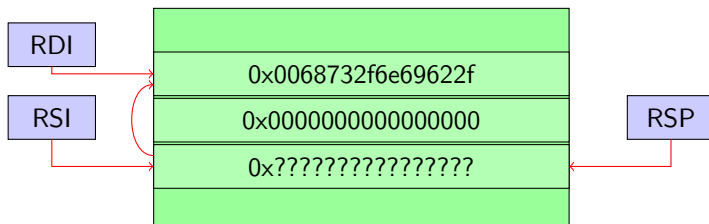


syscall

RAX	0x000000000000003b	sys_execve
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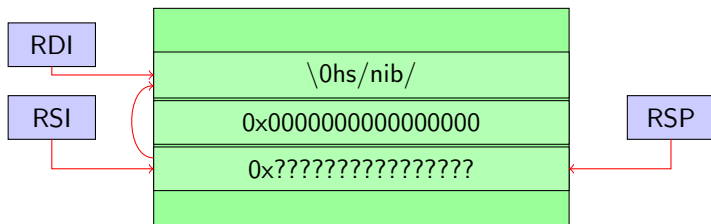
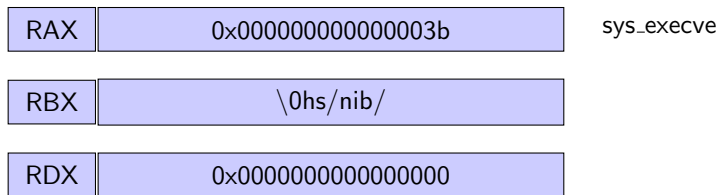
RBX	0x0068732f6e69622f
-----	--------------------

RDX	0x0000000000000000
-----	--------------------



```
sys_execve(char *filename, char *argv[], char *envp[]);
```

syscall



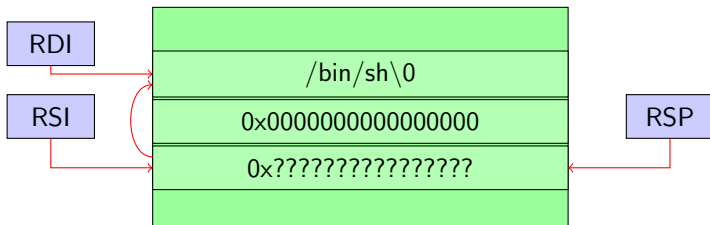
```
sys_execve(char *filename, char *argv[], char *envp[]);
```

syscall

RAX 0x000000000000003b sys_execve

RBX /bin/sh\0

RDX 0x0000000000000000



```
sys_execve( "/bin/sh" , ["/bin/sh"], NULL);
```