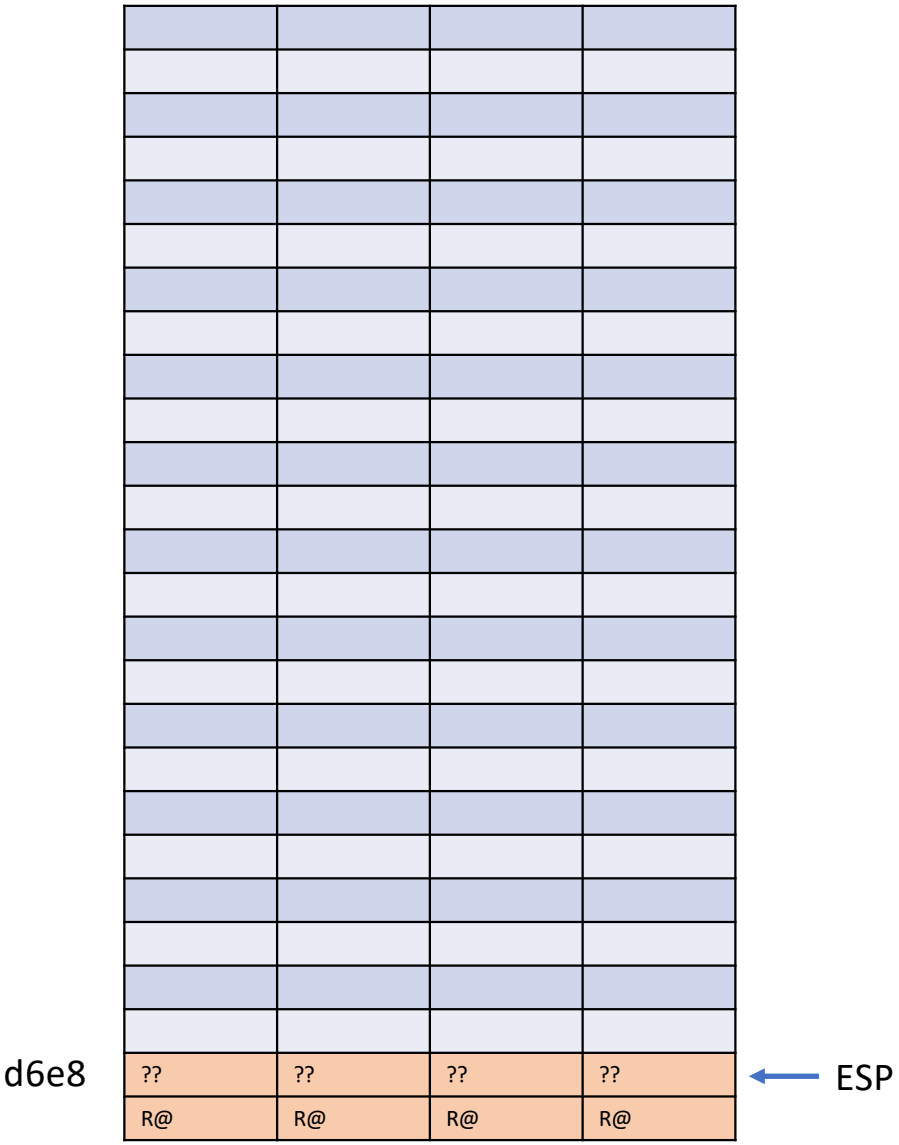
Stack & Function call

Simple source code

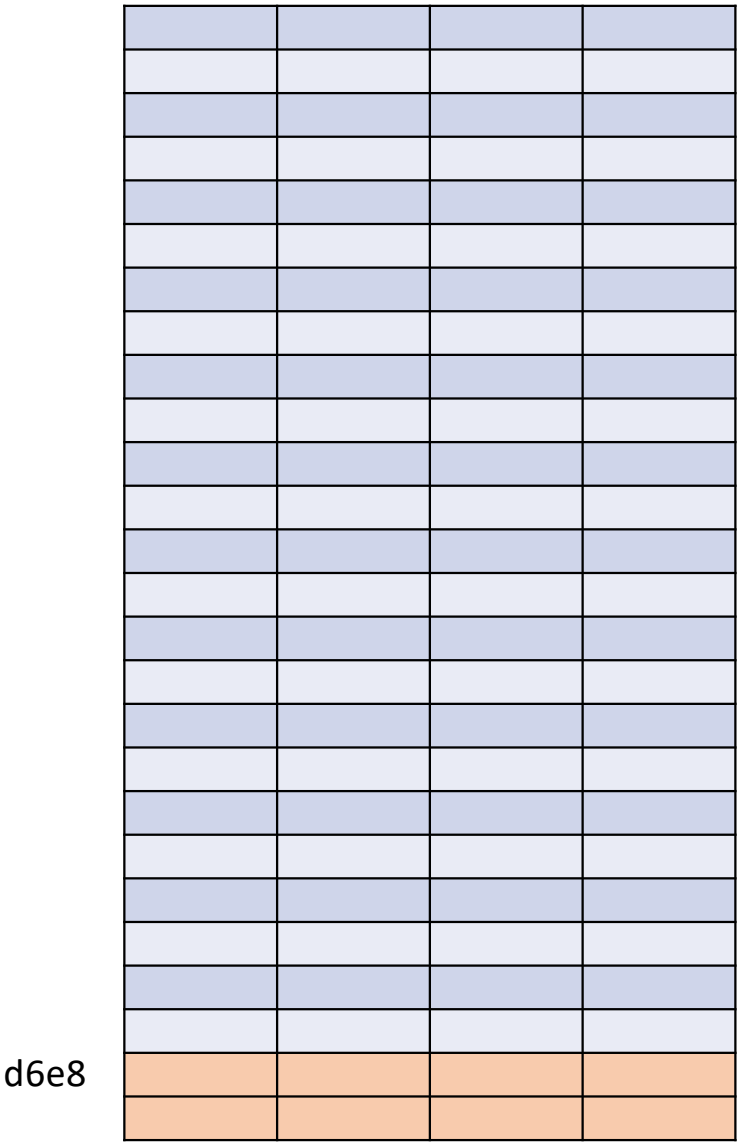
```
int f1(int a, int b) {
volatile int c;
      c=a+b;
      return c;
}

int main() {
volatile int x;
volatile int a, b, c, d;
      a = 0x1111; b = 0x2222; c = 0x3333; d = 0x4444;
      x=f1(a,b);
      ...
```




```
0x80482e0 <main>:        push   %ebp
0x80482e1 <main+1>:      mov    %esp,%ebp
0x80482e3 <main+3>:      sub    $0x20,%esp
0x80482e6 <main+6>:      movl   $0x1111,-0x10(%ebp)
0x80482ed <main+13>:     movl   $0x2222,-0xc(%ebp)
0x80482f4 <main+20>:     movl   $0x3333,-0x8(%ebp)
0x80482fb <main+27>:     movl   $0x4444,-0x4(%ebp)
0x8048302 <main+34>:     mov    -0xc(%ebp),%edx
0x8048305 <main+37>:     mov    -0x10(%ebp),%eax
0x8048308 <main+40>:     push   %edx
0x8048309 <main+41>:     push   %eax
0x804830a <main+42>:     call   0x804843b <f1>
0x804830f <main+47>:     mov    %eax,-0x14(%ebp)
0x8048312 <main+50>:     mov    -0x14(%ebp),%eax
0x8048315 <main+53>:     pop    %ecx
0x8048316 <main+54>:     pop    %edx
0x8048317 <main+55>:     cmp    $0x7,%eax
```

esp	ff	ff	d6	e8
ebp	??	??	??	??

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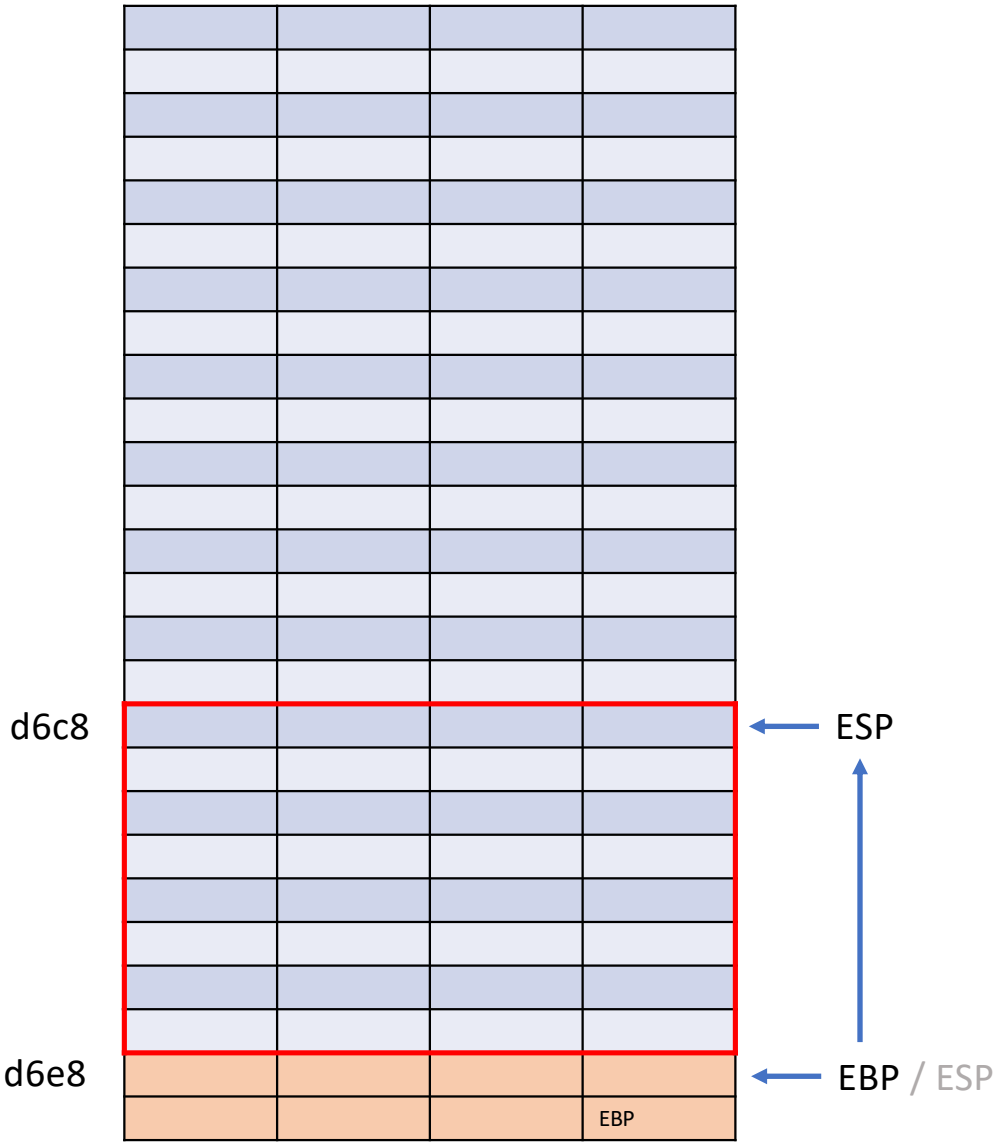
0x8048316 <main+54>:     pop    %edx
0x8048317 <main+55>:     cmp    $0x7,%eax
```

esp	ff	ff	d6	e8
ebp	ff	ff	d6	e8

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```
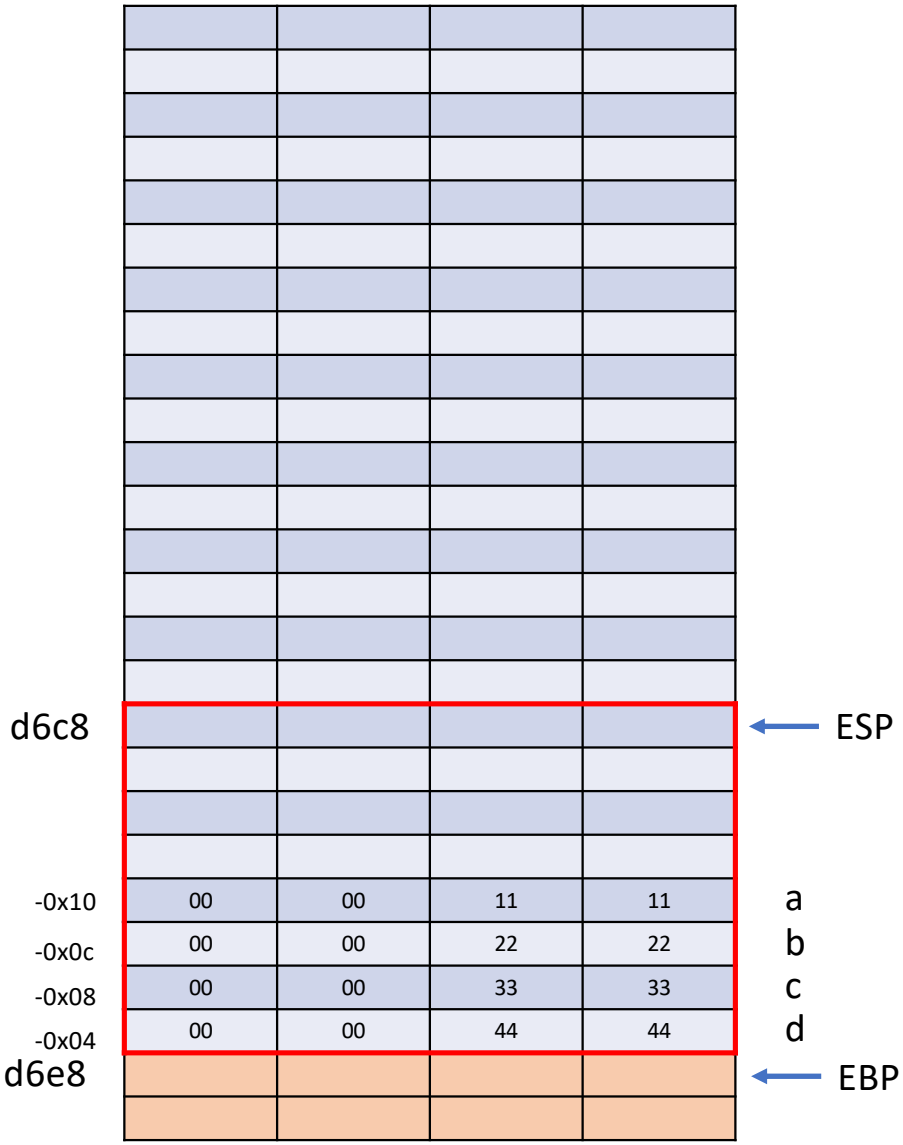

esp	ff	ff	d6	c8
ebp	ff	ff	d6	e8

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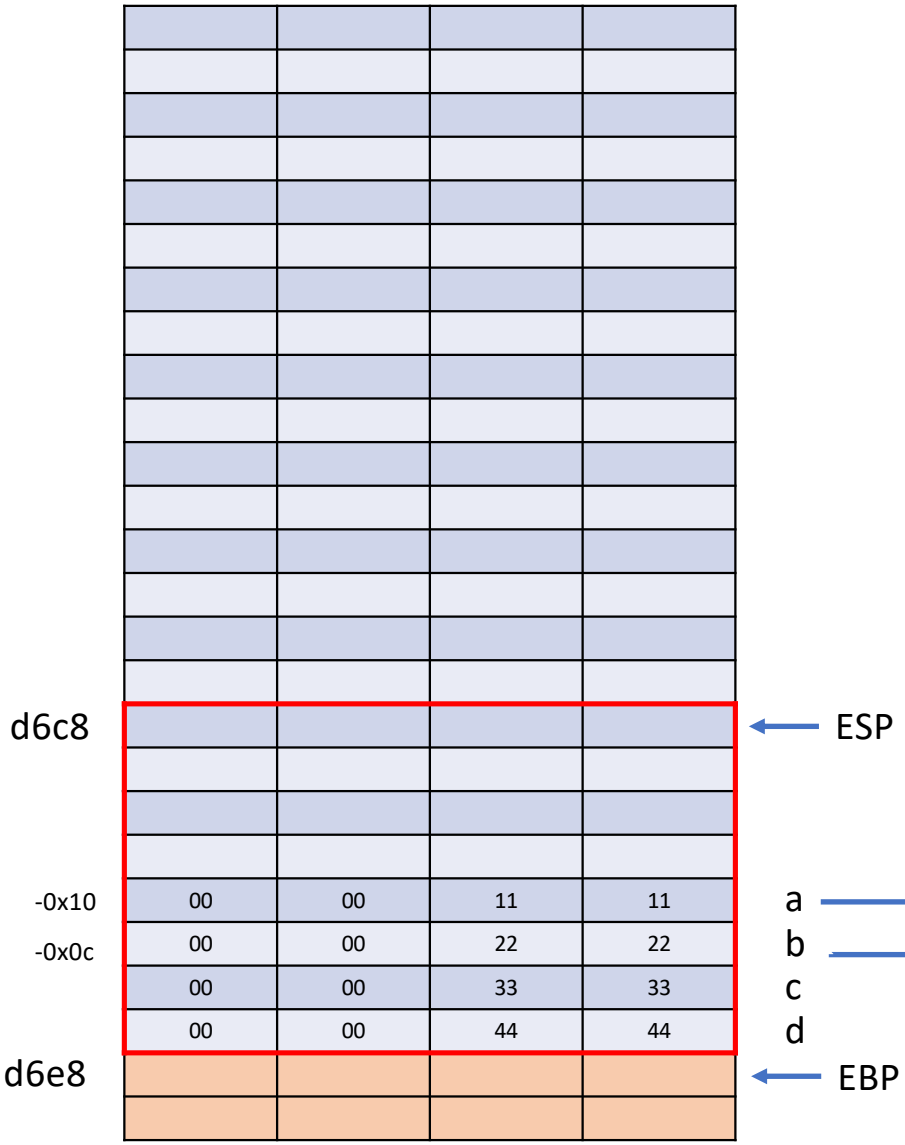
```

esp	ff	ff	d6	c8
ebp	ff	ff	d6	E8
edx				
eax				

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```
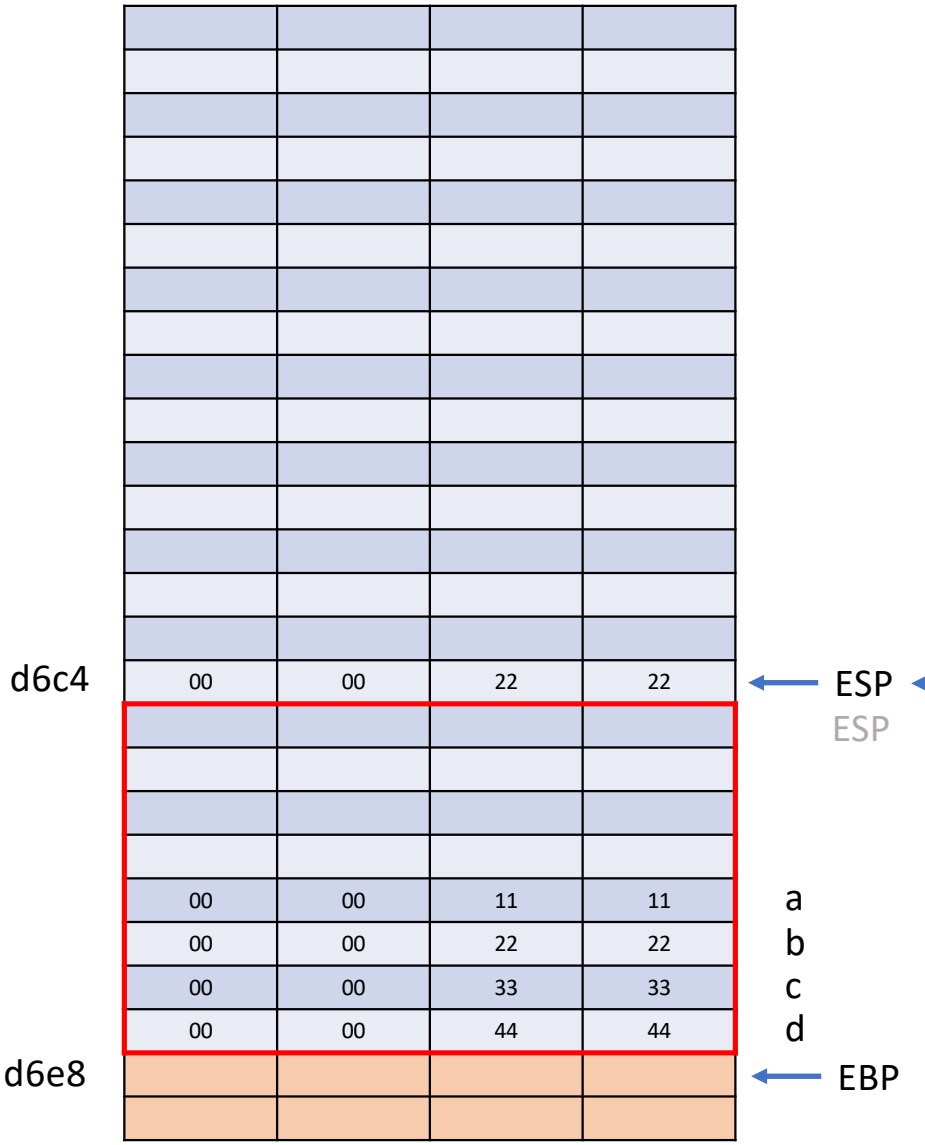

esp	ff	ff	d6	c8
ebp	ff	ff	d6	E8
eax	00	00	11	11
edx	00	00	22	22

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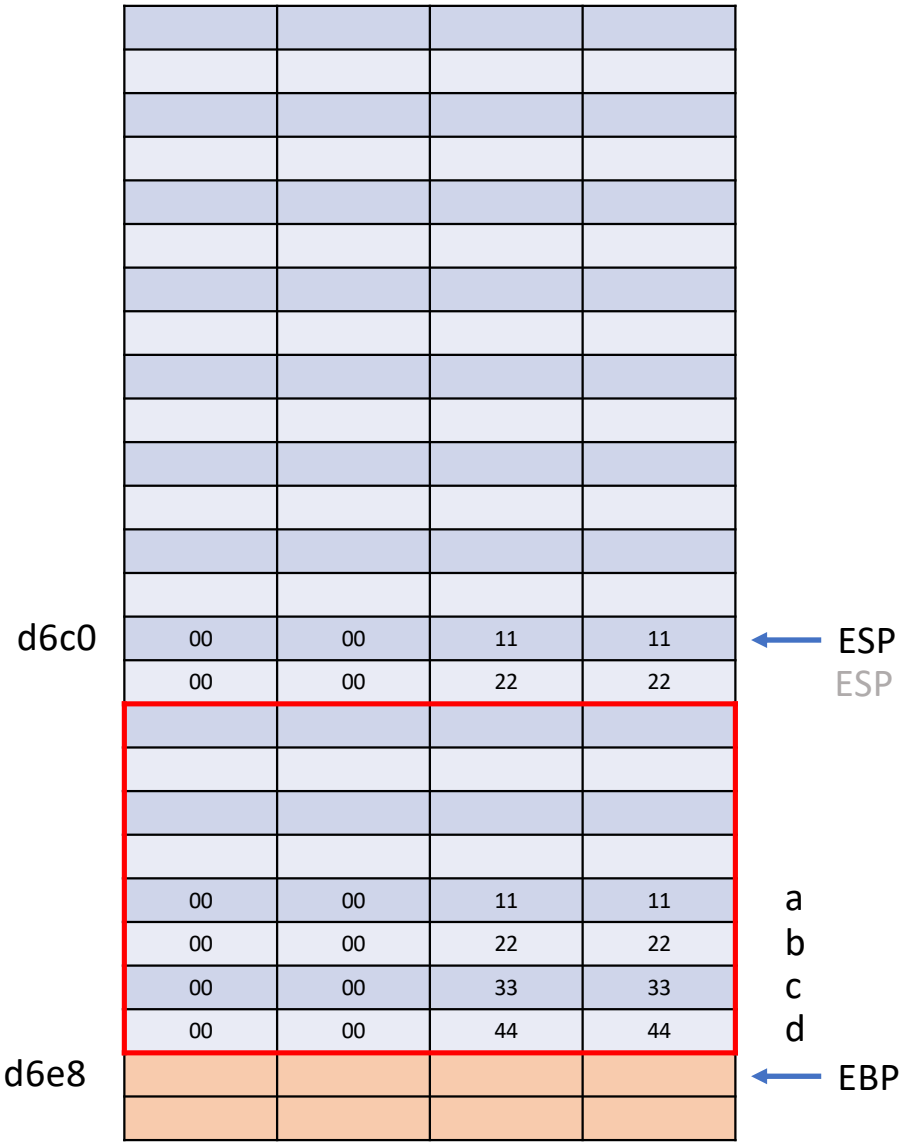
0x8048316 <main+54>:     pop    %edx
0x8048317 <main+55>:     cmp    $0x7,%eax
```

esp	ff	ff	d6	c4
ebp	ff	ff	d6	E8
eax	00	00	11	11
edx	00	00	22	22

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0x8048317 <main+55>:     cmp    $0x7,%eax
```
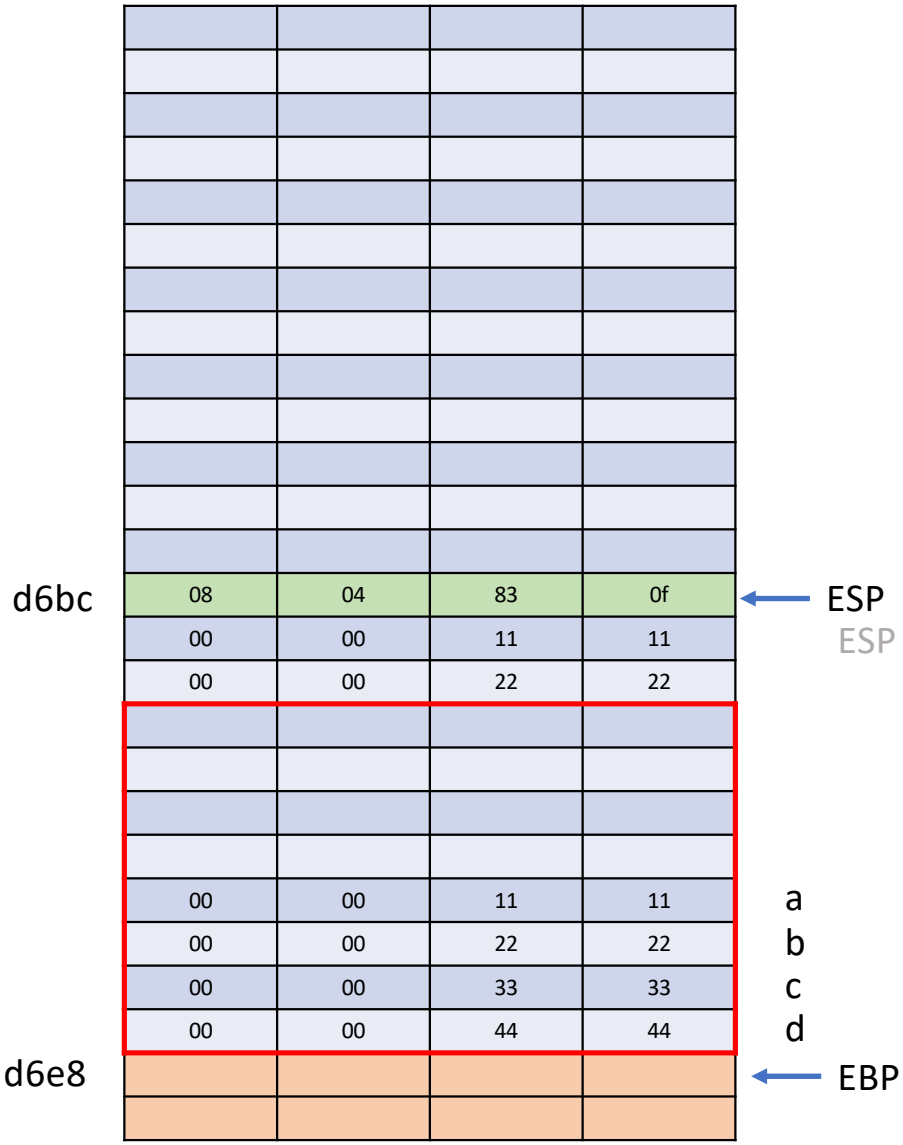

esp	ff	ff	d6	c0
ebp	ff	ff	d6	E8
eax	00	00	11	11
edx	00	00	22	22

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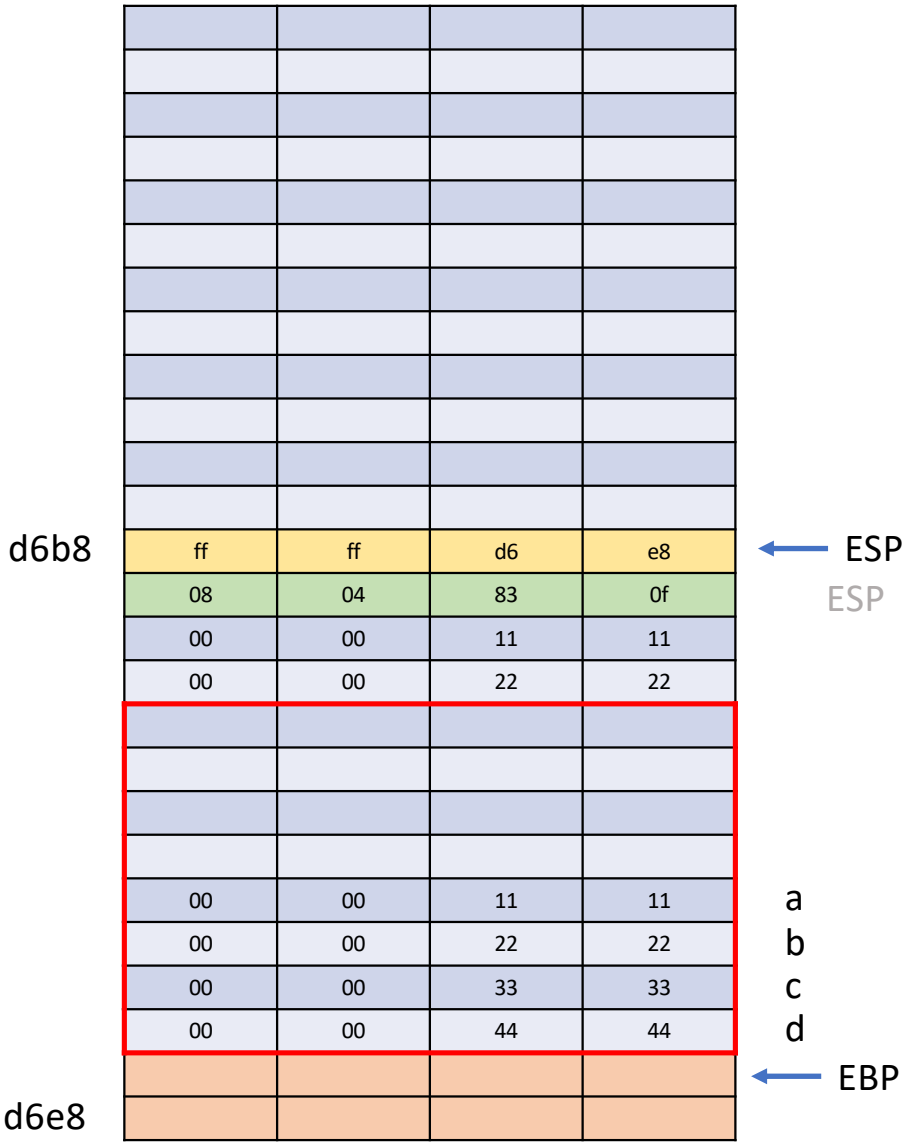
```

esp	ff	ff	d6	bc
ebp	ff	ff	d6	e8
eax	00	00	11	11
edx	00	00	22	22

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0x804843b <f1>:          push   %ebp
0x804843c <f1+1>:        mov    %esp,%ebp
0x804843e <f1+3>:        sub    $0x10,%esp
0x8048441 <f1+6>:        mov    0xc(%ebp),%eax
0x8048444 <f1+9>:        add    0x8(%ebp),%eax
0x8048447 <f1+12>:       mov    %eax,-0x4(%ebp)
0x804844a <f1+15>:       mov    -0x4(%ebp),%eax
0x804844d <f1+18>:       leave
0x804844e <f1+19>:       ret
```
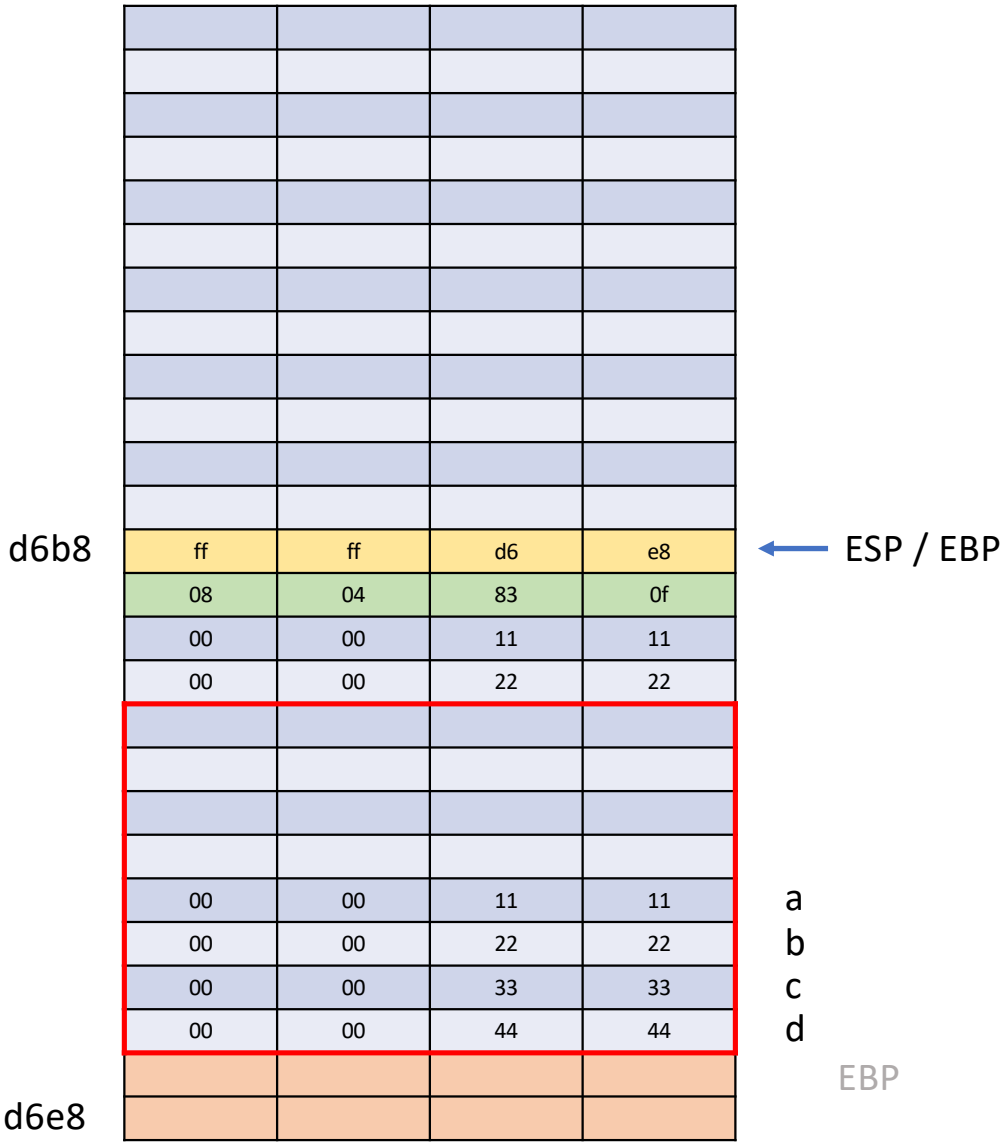

esp	ff	ff	d6	b8
ebp	ff	ff	d6	e8
eax	00	00	11	11
edx	00	00	22	22

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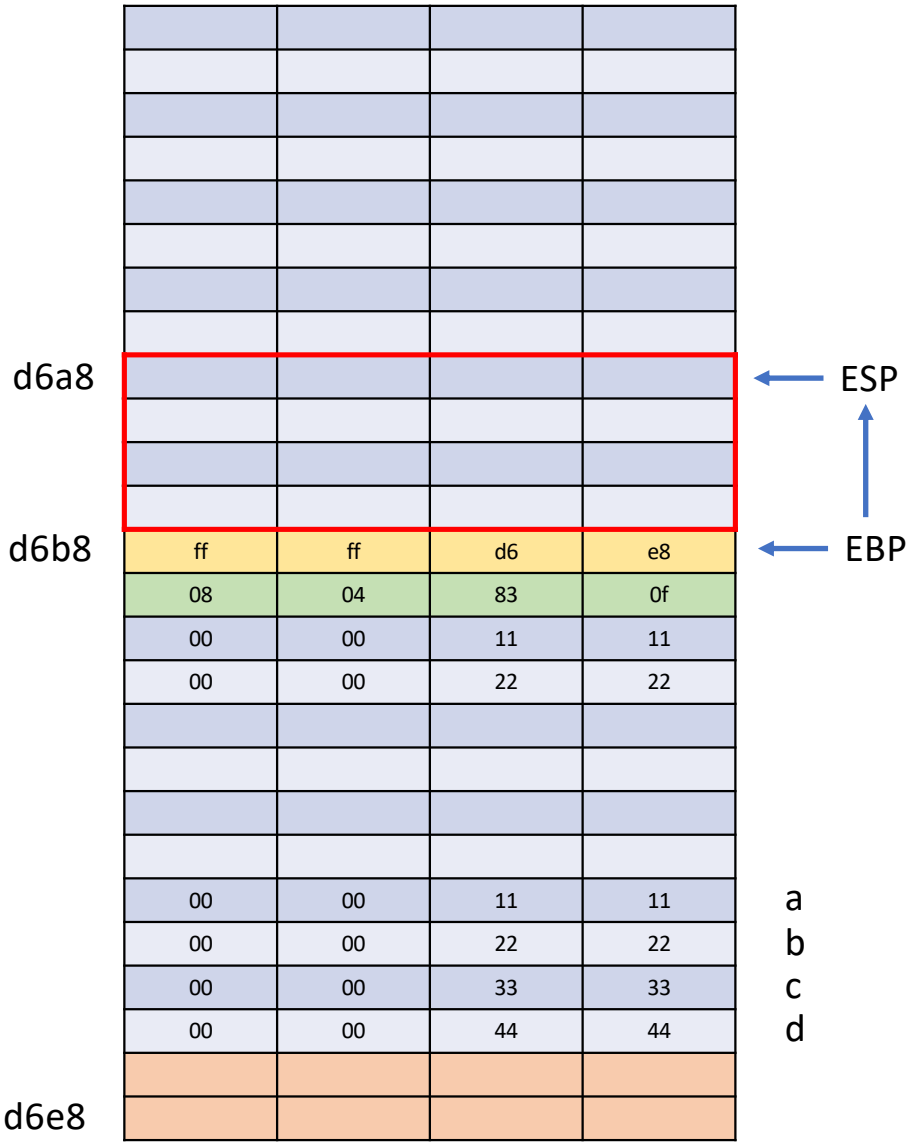
esp	ff	ff	d6	b8
ebp	ff	ff	d6	b8
eax	00	00	11	11
edx	00	00	22	22

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0x804844e <f1+19>:       ret
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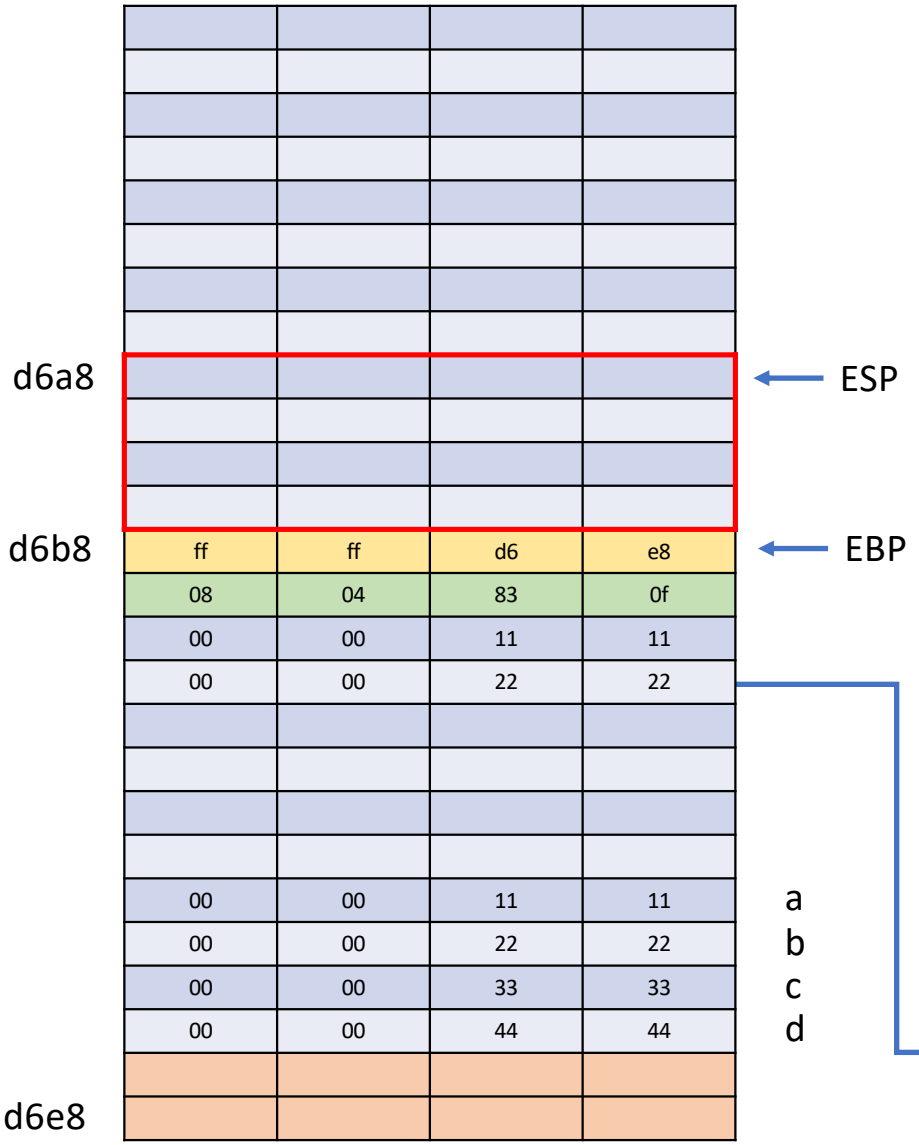
esp	ff	ff	d6	a8
ebp	ff	ff	d6	b8
eax	00	00	11	11
edx	00	00	22	22

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0x804843b <f1>:          push   %ebp
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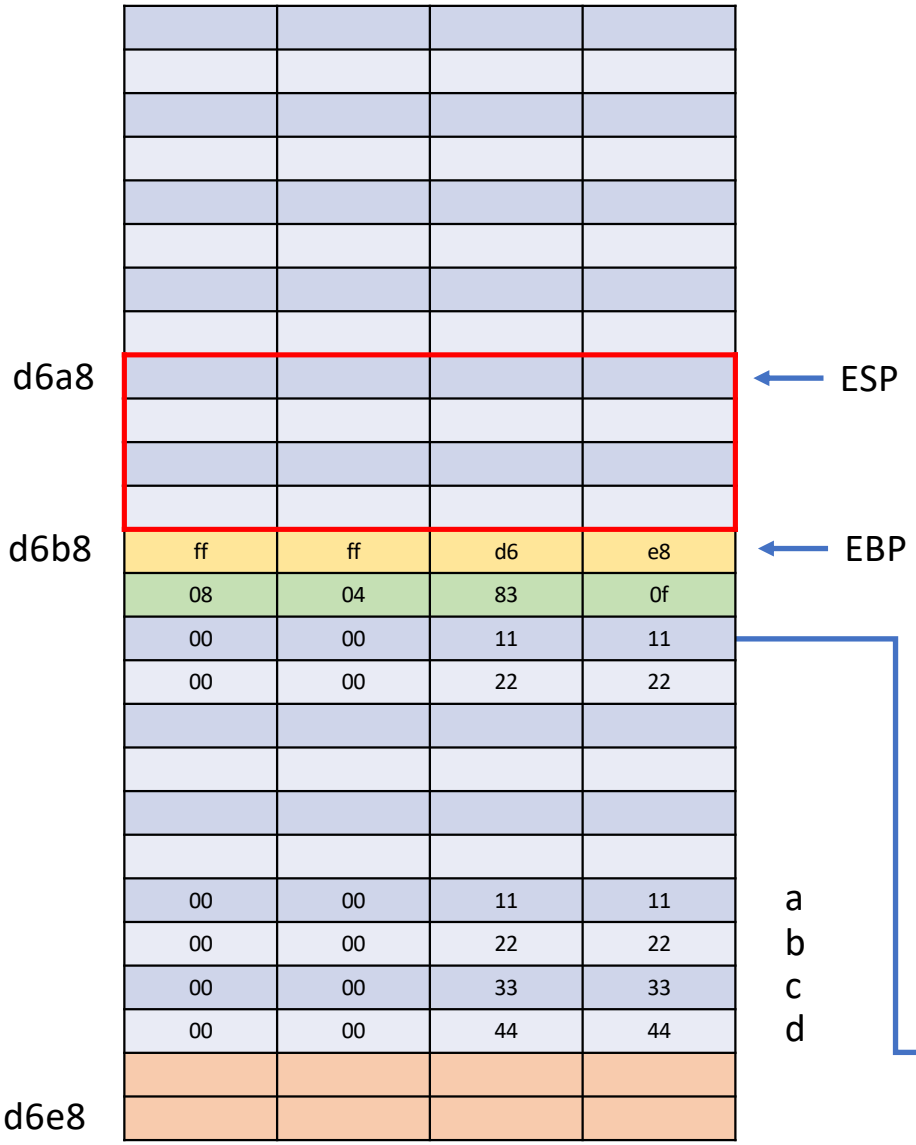
0x804844e <f1+19>:       ret
```

esp	ff	ff	d6	a8
ebp	ff	ff	d6	b8
eax	00	00	22	22
edx	00	00	22	22

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0x804844d <f1+18>:       leave
0x804844e <f1+19>:       ret
```
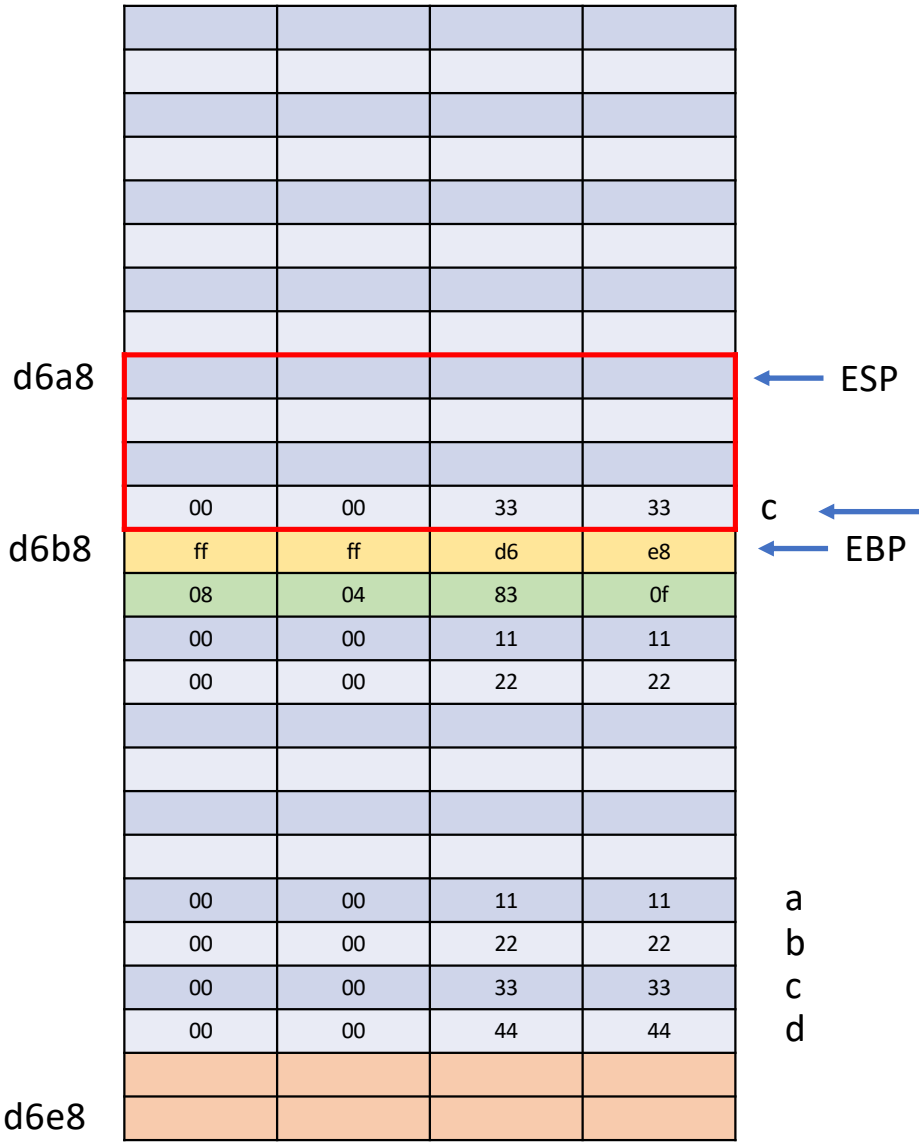

esp	ff	ff	d6	a8
ebp	ff	ff	d6	b8
eax	00	00	33	33
edx	00	00	22	22

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0x804843b <f1>:          push   %ebp
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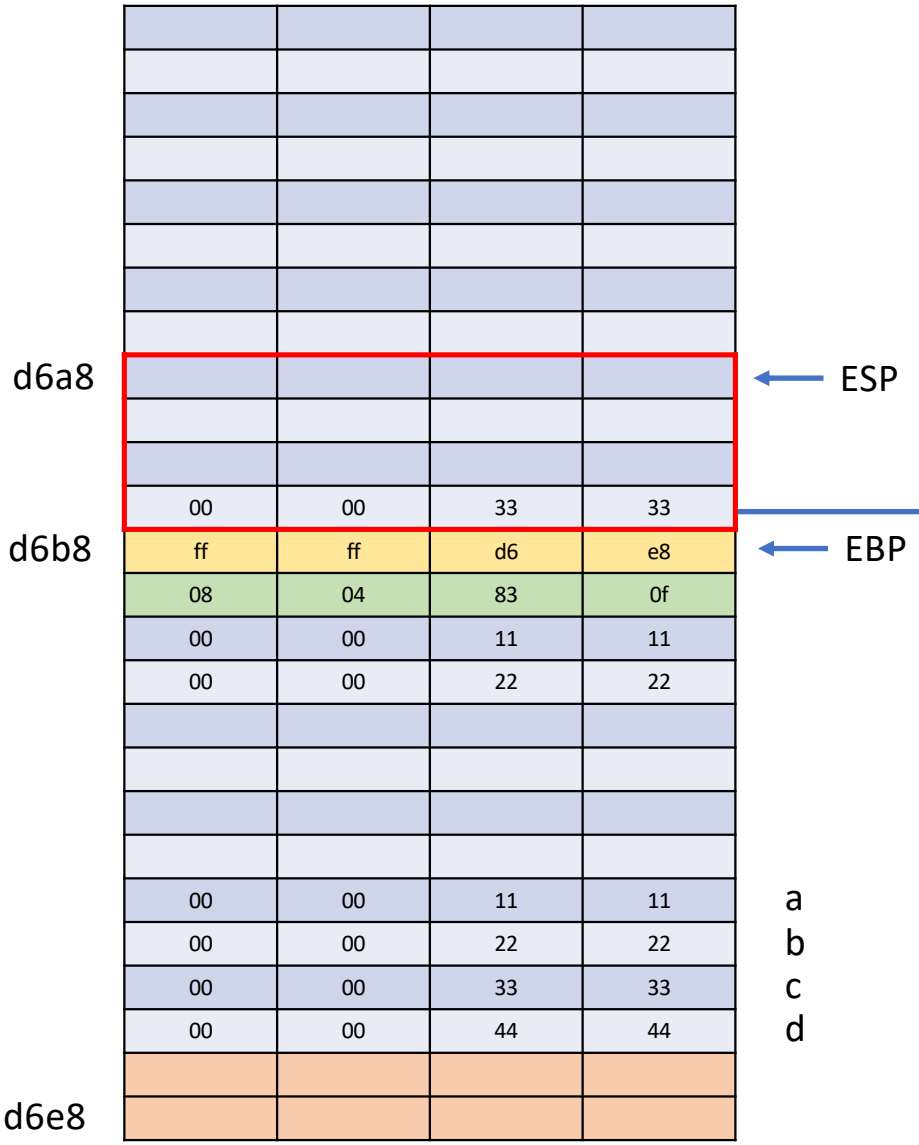
esp	ff	ff	d6	a8
ebp	ff	ff	d6	b8
eax	00	00	33	33
edx	00	00	22	22

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0x804843b <f1>:          push   %ebp
0x804843c <f1+1>:        mov    %esp,%ebp
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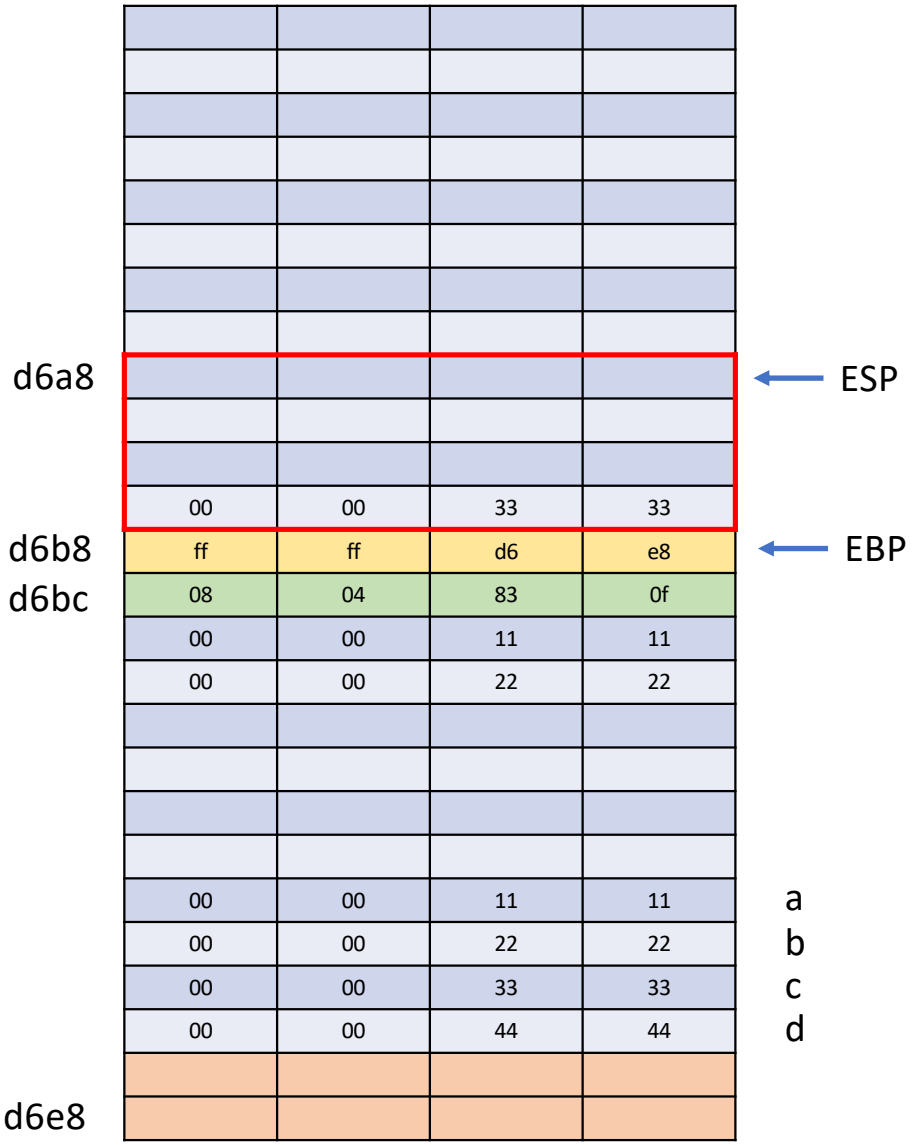
0x804844a <f1+15>:       mov    -0x4(%ebp),%eax
0x804844d <f1+18>:       leave
0x804844e <f1+19>:       ret
```

esp	ff	ff	d6	a8
ebp	ff	ff	d6	b8
eax	00	00	33	33
edx	00	00	22	22

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0x804843b <f1>:          push   %ebp
0x804843c <f1+1>:        mov    %esp,%ebp
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0x804844a <f1+15>:       mov    -0x4(%ebp),%eax
0x804844d <f1+18>:       leave
0x804844e <f1+19>:       ret
```
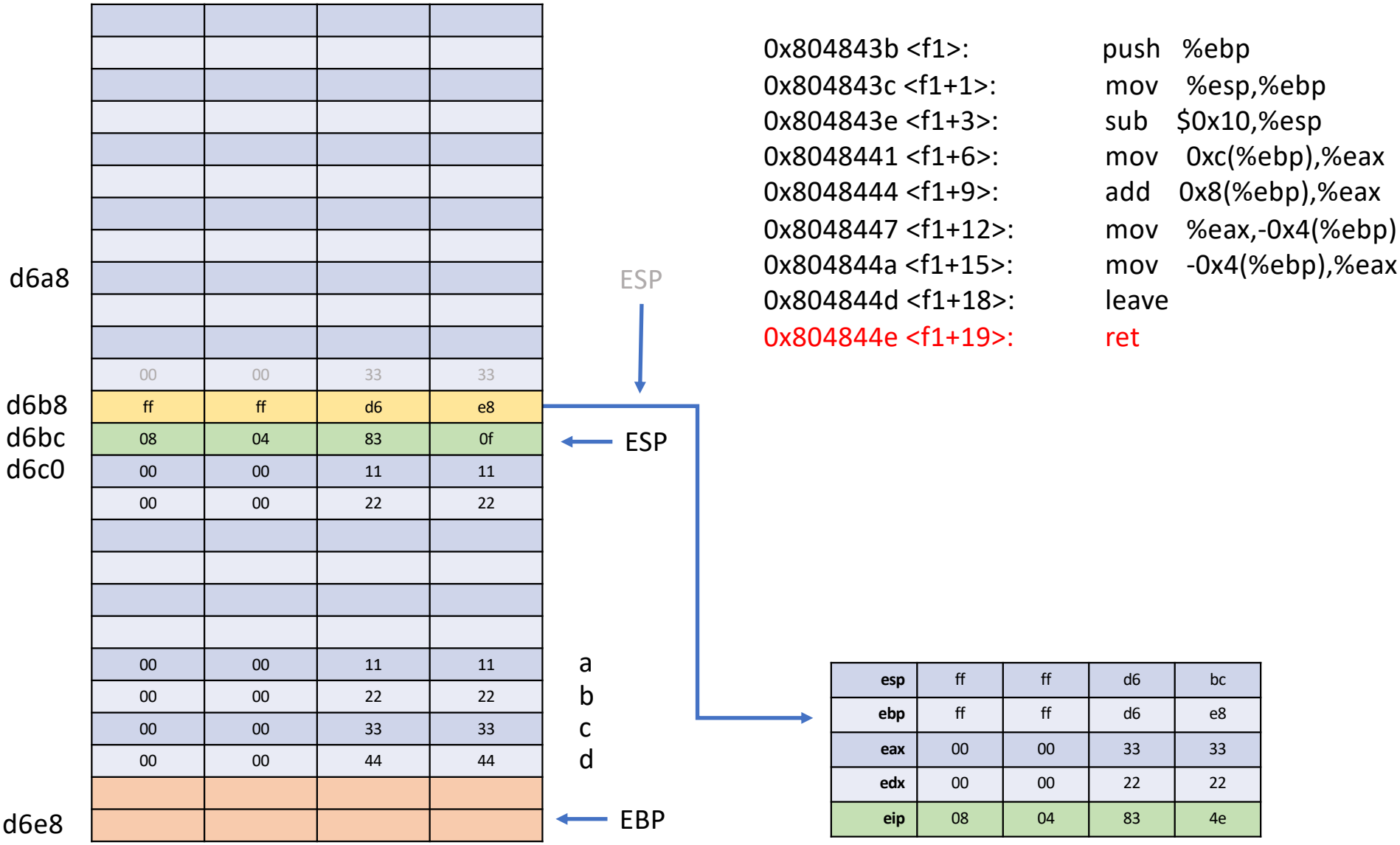
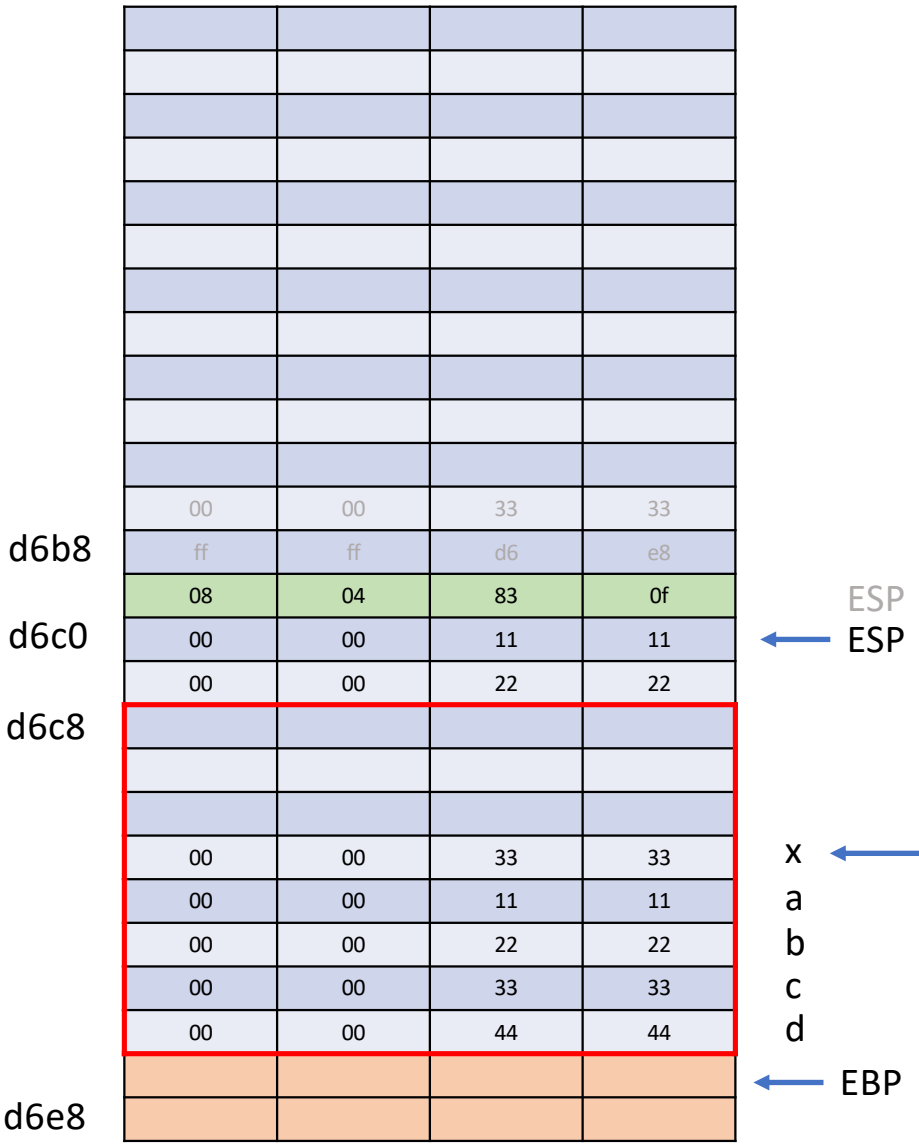
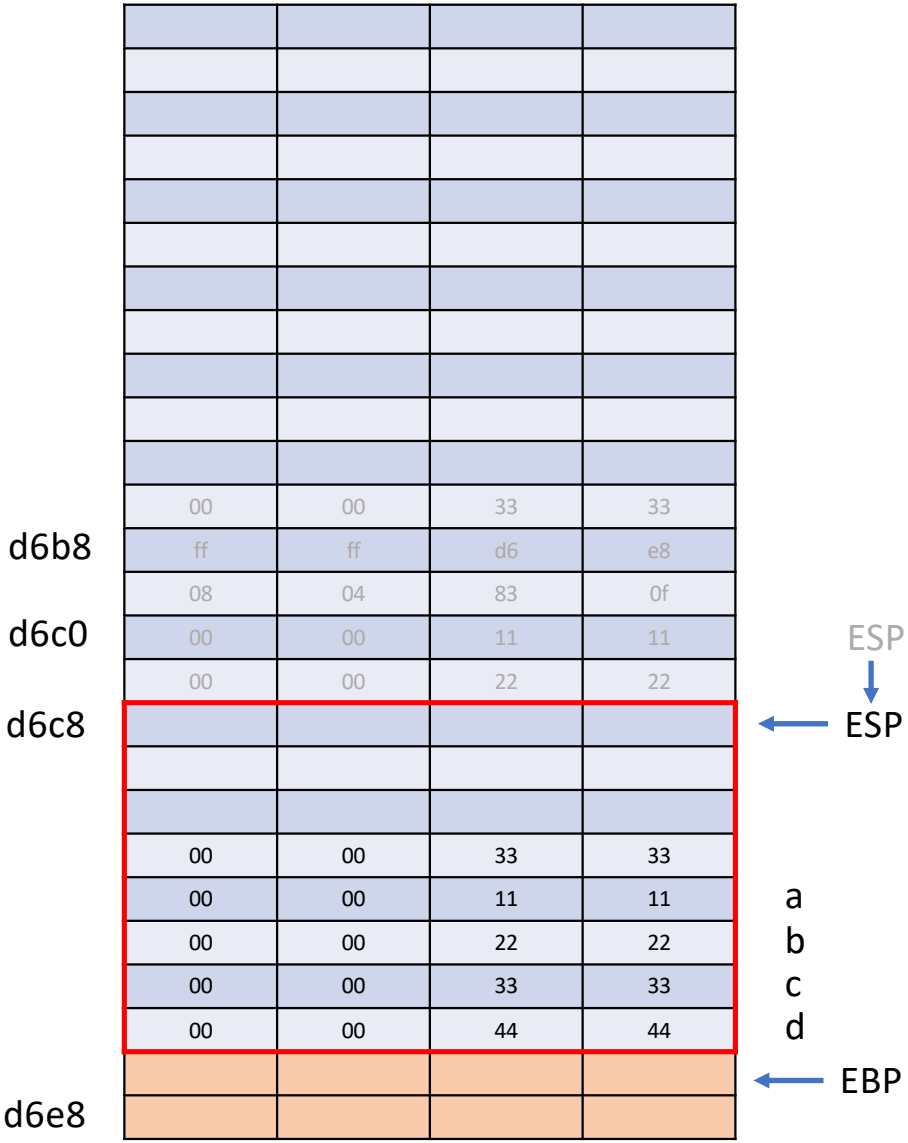

esp	ff	ff	d6	a8
ebp	ff	ff	d6	b8
eax	00	00	33	33
edx	00	00	22	22
eip	08	04	84	4d


d6a8
00 00 33 33
d6b8 ff ff d6 e8
d6bc 08 04 83 0f
d6c0 00 00 11 11
00 00 22 22
00 00 11 11
00 00 22 22
00 00 33 33
00 00 44 44
d6e8
ESP
ESP
EBP
a
b
c
d
0x804843b <f1>: push %ebp
0x804843c <f1+1>: mov %esp,%ebp
0x804843e <f1+3>: sub $0x10,%esp
0x8048441 <f1+6>: mov 0xc(%ebp),%eax
0x8048444 <f1+9>: add 0x8(%ebp),%eax
0x8048447 <f1+12>: mov %eax,-0x4(%ebp)
0x804844a <f1+15>: mov -0x4(%ebp),%eax
0x804844d <f1+18>: leave
0x804844e <f1+19>: ret
esp ff ff d6 bc
ebp ff ff d6 e8
eax 00 00 33 33
edx 00 00 22 22
eip 08 04 83 4e




```
0x80482e0 <main>:        push   %ebp
0x80482e1 <main+1>:      mov    %esp,%ebp
0x80482e3 <main+3>:      sub    $0x20,%esp
0x80482e6 <main+6>:      movl   $0x1111,-0x10(%ebp)
0x80482ed <main+13>:     movl   $0x2222,-0xc(%ebp)
0x80482f4 <main+20>:     movl   $0x3333,-0x8(%ebp)
0x80482fb <main+27>:     movl   $0x4444,-0x4(%ebp)
0x8048302 <main+34>:     mov    -0xc(%ebp),%edx
0x8048305 <main+37>:     mov    -0x10(%ebp),%eax
0x8048308 <main+40>:     push   %edx
0x8048309 <main+41>:     push   %eax
0x804830a <main+42>:     call   0x804843b <f1>
0x804830f <main+47>:     mov    %eax,-0x14(%ebp)
0x8048312 <main+50>:     mov    -0x14(%ebp),%eax
0x8048315 <main+53>:     pop    %ecx
0x8048316 <main+54>:     pop    %edx
0x8048317 <main+55>:     cmp    $0x7,%eax
```

esp	ff	ff	d6	c0
ebp	ff	ff	d6	e8
eax	00	00	33	33
edx	00	00	22	22
eip	08	04	83	0f



	00	00	33	33
d6b8	ff	ff	d6	e8
	08	04	83	0f
d6c0	00	00	11	11
	00	00	22	22
d6c8				
	00	00	33	33
	00	00	11	11
	00	00	22	22
	00	00	33	33
	00	00	44	44
d6e8				

```
0x80482e0 <main>:        push   %ebp
0x80482e1 <main+1>:      mov    %esp,%ebp
0x80482e3 <main+3>:      sub    $0x20,%esp
0x80482e6 <main+6>:      movl   $0x1111,-0x10(%ebp)
0x80482ed <main+13>:     movl   $0x2222,-0xc(%ebp)
0x80482f4 <main+20>:     movl   $0x3333,-0x8(%ebp)
0x80482fb <main+27>:     movl   $0x4444,-0x4(%ebp)
0x8048302 <main+34>:     mov    -0xc(%ebp),%edx
0x8048305 <main+37>:     mov    -0x10(%ebp),%eax
0x8048308 <main+40>:     push   %edx
0x8048309 <main+41>:     push   %eax
0x804830a <main+42>:     call   0x804843b <f1>
0x804830f <main+47>:     mov    %eax,-0x14(%ebp)
0x8048312 <main+50>:     mov    -0x14(%ebp),%eax
0x8048315 <main+53>:     pop    %ecx
0x8048316 <main+54>:     pop    %edx
0x8048317 <main+55>:     cmp    $0x7,%eax
```

esp	ff	ff	d6	c8
ebp	ff	ff	d6	e8
eax	00	00	33	33
edx	00	00	22	22
eip	08	04	83	0f