

## CSE 484 In-Class Worksheet #5 – Spring 2018

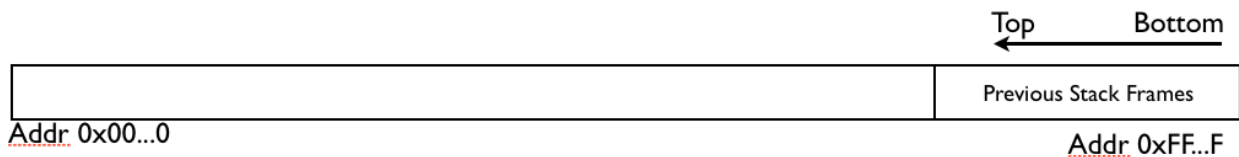
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**Q1:** In the figure below, draw what happens on the stack (x86) when this function is called. What might get overwritten if str is longer than 126 bytes?

```
void func(char *str) {  
    char buf[126];  
    strcpy(buf, str);  
}
```



**Q2:** Apache 1.3 had the following code:

```
strcpy(record, user);  
strcat(record, ":");  
strcat(record, cpw);
```

The published fix:

```
strncpy(record, user, MAX_STRING_LEN-1);  
strcat(record, ":");  
strncat(record, cpw, MAX_STRING_LEN-1);
```

Is this fix good? If so, why? If not, why not?

Q3: Consider this code:

```
void mycopy(char *input) {
    char buffer[512]; int i;

    for (i=0; i<=512; i++)
        buffer[i] = input[i];
}
void main(int argc, char *argv[]) {
    if (argc==2)
        mycopy(argv[1]);
}
```

Is this code exploitable? If not, why not? If so, why? You may use the diagram below to help answer this question, if you wish.

