

a) When we need more advanced tools like only the mutex locks can unlock it, using signals alongside with mutexes (conditional variables) we can't use semaphores for that.

```
b) int main(char *argv[], int argc) {  
    char argv2[16][128];  
    while (1) {  
        read_commands(&argv2); // scan and parse it into argv2  
        if (strcmp(argv2[0], "exit") == 0 ||  
            strcmp(argv2[0], "chdir") == 0) {  
            execve(argv2[0], argv2, NULL);  
        }  
    }  
}
```

c)