

```

#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <sys/types.h>
#include <sys/wait.h>

int join(char *com1[], char* com2[])
{
    int p[2], status;

    switch (fork()) {
        case -1:
            perror("1st fork in join");
            exit(1);
        case 0:
            break;
        default:
            wait(&status);
            return(status);
    }

    if (pipe(p) == -1) {
        perror("pipe in join");
        exit(2);
    }

    switch(fork()) {
        case -1:
            perror("1st fork in join");
            exit(1);
        case 0:
            dup2(p[1], 1);
            close(p[0]);
            close(p[1]);

            execvp(com1[0], com1);
        default:
            dup2(p[0], 0);
            close(p[0]);
            close(p[1]);

            execvp(com2[0], com2);
    }
}

```

```
void main()
{
    char *one[4] = {"ls", "-l", ".", NULL};
    char *two[3] = {"grep", "a.out", NULL};

    int ret;

    ret = join(one, two);
    printf("join returned %d\n", ret);

    exit(0);
}
```