

# Υποβολή 4ης Άσκησης

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## Ερώτημα Α

*Λίστα τροποποιηθέντων αρχείων*

/usr/src/servers/vfs/open.c

*Τροποποιήσεις*

/usr/src/servers/vfs/open.c

Line	Code
609	If (r == OK) {
610	Printf("newdir: %s %o\n", fullpath, dirmode);
611	}

*Screenshots αποτελεσμάτων*

```
-bash-4.2# mkdir ask4
process forked
newdir: ask4 755
-bash-4.2# mkdir ask4
process forked
mkdir: ask4: file exists
```

## Ερώτημα Β

### *Λίστα τροποποιηθέντων αρχείων*

/usr/src/servers/pm/forkexit.c

### *Τροποποιήσεις*

/usr/src/servers/pm/forkexit.c

Line	Code
134	printf("process forked\n");

### *Screenshots αποτελεσμάτων*

```
-bash-4.2# mkdir ask4
process forked
newdir: ask4 755
-bash-4.2# mkdir ask4
process forked
mkdir: ask4: file exists
```

```
-bash-4.2# ls
process forked
.ashrc          .exrc          ask4            hw4.patch      test1.c
.bash_history   .lessht        changes.patch   test
.bashrc         .profile       create_patch    test.c
```

# Ερώτημα C

## Λίστα τροποποιηθέντων αρχείων

/usr/src/include/minix/callnr.h  
/usr/src/servers/pm/table.c  
/usr/src/servers/pm/proto.h  
/usr/src/servers/pm/Makefile  
/usr/src/servers/pm/ceid.c

## Τροποποιήσεις

/usr/src/include/minix/callnr.h

Line	Code
68	#define CEID 69

/usr/src/servers/pm/table.c

Line	Code
83	do_ceid, /* 69 = processes */

/usr/src/servers/pm/proto.h

Line	Code
59	int do_ceid(void);

/usr/src/servers/pm/Makefile

Line	Code
7	profile.c schedule.c ceid.c

/usr/src/servers/pm/ceid.c  
#include <stdio.h>  
#include "pm.h"  
#include "mproc.h"  
#include "glo.h"

```

int do_ceid()
{
    int i=0;
    int procs=0;
    clock_t mp_child_etime;
    clock_t mp_child_stime;

    struct statistics{
        clock_t etime, stime;
    };
    struct statistics stats;
    do {
        if (mproc[i].mp_pid != 0) {
            procs++;
            stats.etime += mproc[i].mp_child_etime;
            stats.stime += mproc[i].mp_child_stime;
        }
        i++;
    } while (i<NR_PROCS);
    printf("processes -> %d\n", procs);
    printf("user time -> %d\n", stats.etime);
    printf("system time -> %d\n", stats.stime);
    return 0;
}

```

### ***Screenshots αποτελεσμάτων***

```

-bash-4.2# ./test
process forked
processes -> 40
user time -> 143424
system time -> 146497

```

## Ερώτημα D

### Λίστα τροποποιηθέντων αρχείων

```
/usr/src/include/minix/callnr.h  
/usr/src/servers/pm/table.c  
/usr/src/servers/pm/proto.h  
/usr/src/servers/pm/Makefile  
/usr/src/servers/pm/ceidpid.c
```

### Τροποποιήσεις

```
/usr/src/include/minix/callnr.h
```

Line	Code
69	#define CEIDPID 70

```
/usr/src/servers/pm/table.c
```

Line	Code
84	do_ceidpid, /* 70 = ceidpid */

```
/usr/src/servers/pm/proto.h
```

Line	Code
60	int do_ceidpid(int var);

```
/usr/src/servers/pm/Makefile
```

Line	Code
7	profile.c schedule.c ceid.c ceidpid.c

```
/usr/src/servers/pm/ceidpid.c  
#include <stdio.h>  
#include "pm.h"  
#include "mproc.h"  
#include <stdlib.h>  
#include <lib.h>
```

```
#include <unistd.h>
#include <minix/type.h>
#include <string.h>

int do_ceidpid(int var)
{
    int i=0;
    int rtn=0;

    do {
        if (mproc[i].mp_pid == var) {
            rtn = 1;
        }
        i++;
    } while (i<NR_PROCS);
    return rtn;
}
```