

## Code Modification Report Project 2

### Makefile

```
CS333_PROJECT ?= 2
PRINT_SYSCALLS ?= 0
```

Line 21 :

```
CS333_UPROGS += #_date _time _ps
```

### p2-test.c

line 12 – 14

```
//#define CPUTIME_TEST
//#define GETPROCS_TEST
//#define TIME_TEST
```

### usys.S

Line 34 – 38

SYSCALL(getuid)

SYSCALL(getgid)

SYSCALL(getppid)

SYSCALL(setuid)

SYSCALL(setgid)

### syscall.h

Line 25 – 29

```
#define SYS_getuid    SYS_date+1
#define SYS_getgid    SYS_getuid+1
#define SYS_getppid   SYS_getgid+1
#define SYS_setuid    SYS_getppid+1
#define SYS_setgid    SYS_setuid+1
```

## proc.c

Line 9 – 11

```
#ifdef CS333_P2
#include "pdx.h"
#endif
```

Line 183 – 186

```
#ifdef CS333_P2
p->uid = DEFAULT_UID;
p->gid = DEFAULT_GID;
#endif // CS333_P2
```

Line 259 – 260

```
np->uid = curproc->uid;
np->gid = curproc->gid;
```

## user.h

Line 32 – 39

```
#ifdef CS333_P2
uint getuid(void);
uint getgid(void);
uint getppid(void);
int setuid(uint);
int setgid(uint);
int getprocs(uint max, struct uproc* table);
#endif // CS333_P2
```

## proc.h

Line 53 – 54

```
uint uid;
uint gid;
```

## syscall.c

Line 113 – 119

```
#ifdef CS333_P2
extern int sys_getuid(void);
extern int sys_getgid(void);
extern int sys_getppid(void);
extern int sys_setuid(void);
extern int sys_setgid(void);
#endif // CS333_P2
```

Line 149 – 155

```
#ifdef CS333_P2
[SYS_getuid] sys_getuid,
[SYS_getgid] sys_getgid,
[SYS_getppid] sys_getppid,
[SYS_setuid] sys_setuid,
[SYS_setgid] sys_setgid,
#endif // CS333_P2
```

Line 187 – 193

```
#ifdef CS333_P2
[SYS_getuid] "getuid",
[SYS_getgid] "getgid",
[SYS_getppid] "getppid",
[SYS_setuid] "setuid",
[SYS_setgid] "setgid",
#endif
```

## sysproc.c

Line 91 – 127

```
#ifdef CS333_P2
int
sys_getuid(void)
{
    return myproc()->uid;
}
int
sys_getgid(void)
{
```

```
    return myproc()->gid;
}
int
sys_getppid(void)
{
    if(myproc()->pid == 1)
        return myproc()->pid;
    return myproc()->parent->pid;
}
int
sys_setuid(void)
{
    int tmp;
    if(argint(0,&tmp) < 0 || tmp > 32767 || tmp < 0)
        return -1;
    myproc()->uid = (uint)tmp;
    return 0;
}
int
sys_setgid(void)
{
    int tmp;
    if(argint(0,&tmp) < 0 || tmp > 32767 || tmp < 0)
        return -1;
    myproc()->gid = (uint)tmp;
    return 0;
}
#endif
```