ASSIGNMENT 1 OPERATING SYSTEM

CODE MODIFICATION REPORT

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Makefile

```
(Line 3 - 8)
  CS333 PROJECT ?= 1
                        set sesuai keperluan
                        set sesuai keperluan
  PRINT SYSCALLS ?= 1
  CS333 CFLAGS ?= -DPDX XV6
  ifeq ($(CS333 CFLAGS), -DPDX XV6)
  CS333 UPROGS += halt uptime
  Endif
> syscall.c
  (Line 187 – 189 = System Call Tracing)
  #ifdef CS333 P1
    cprintf("%s -> %d\n",syscallnames[num],curproc->tf->eax);
  #endif //CS333 P1
  (Line 109 – 111 = Adding A New System Call)
  #ifdef CS333 P1
    extern int sys_date(void);
  #endif //CS333 P1
  (Line 138 – 140 = Adding A New System Call)
  #ifdef CS333 P1
```

```
[SYS_date] sys_date,
  #endif //CS333 P1
  (Line 169 - 171 = Adding A New System Call)
  #ifdef CS333 P1
     [SYS_date] "date",
  #endif //CS333_P1
> syscall.h
  (Line 24)
  #define SYS_date SYS_halt+1 //CS333_P1
> sysproc.c
  (Line 101 - 114)
  #ifdef CS333 P1
   int
   sys_date(void)
      struct rtcdate *d;
      if (argptr(0, (void*)&d, sizeof(struct rtcdate)) < 0){
          return -1;
      }
      else{
          cmostime(d);
          return 0;
      }
  #endif //CS333 P1
```

```
> usys.S
  (Line 33)
  SYSCALL(date)
> user.h
  (Line 46 - 48)
  #ifdef CS333 P1
     int date(struct rtcdate*);
  #endif //CS333_P1
> proc.h
  (Line 52 - 54)
  #ifdef CS333 P1
     uint start ticks; // ticks global
  #endif //CS333 P1
> proc.c
  (Line 151 - 153 = Control P)
  #ifdef CS333 P1
     p->start ticks = ticks;
  #endif //CS333 P1
  (Line 564 - 577 = Control P)
  #elif defined CS333_P1
    procdumpP1(struct proc *p, char *state_string)
        uint elapsed;
        uint sec;
```

```
uint millsec;

elapsed = ticks - p->start_ticks;
sec = (elapsed / 1000);
millsec = (elapsed % 1000);
cprintf("%d\t%s\t\t%d.%d\t%s\t%d\t", p->pid,p->name,sec,millsec,state_string,p->sz);
}
#endif //CS333_P1
```