

# Lab Manual

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CS609 – System Programming



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## Lab 2: Task 1

Write a TSR program that will set the CAPS LOCK on after every timer interrupt occurs. You have to access Keyboard Status byte to turn on CAPS LOCK and interrupt 8 for timer interrupt.

### Solution:

```
#include <dos.h>
void interrupt (*old)();
void interrupt new();
char far *scr=(char far* ) 0x00400017;

void main()
{
    old=getvect(0x08);
    setvect(0x08,new);
    keep(0,1000);
}

void interrupt new (){
    *scr=64;
    (*old)();
}
```

### Mechanism to Conduct Lab:

Write, compile, and run the code in VM Virtual Box.

Students and teacher communicate through Skype/Adobe Connect.

## Lab 2: Task 2

Write a TSR program that will suppress “g” key of the keyboard. Check the Keyboard Port for the scan code of “g”. At the end of the program, you should notify PIC for the end of interrupt. Scan code of “g” is 0x42.

### Solution:

```
#include <dos.h>
void interrupt(*old)();
void interrupt newint9();
void main() {

    old=getvect(0x09);
    setvect(0x09,newint9);
    keep(0,1000);
}

void interrupt newint9() {

    if (inportb(0x60)==0x42) {

        outportb(0x20,0x20);
        return;
    }
    (*old)();
}
```

### Mechanism to Conduct Lab:

Write, compile, and run the code in VM Virtual Box.

Students and teacher communicate through Skype/Adobe Connect.