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/* ANRC RHKI */
/* Lab8: Interrupt Handler Lab */
#include <linux/module.h>
#include <linux/kernel.h>
#include <linux/init.h>

#include <linux/interrupt.h>
#include <linux/io.h>

#define DRIVER_AUTHOR "ANRC"
#define DRIVER_DESC "Lab8"

MODULE_LICENSE("GPL");           // Get rid of taint message by declaring code as GPL.

/* Or with defines, like this: */
MODULE_AUTHOR(DRIVER_AUTHOR);    // Who wrote this module?
MODULE_DESCRIPTION(DRIVER_DESC); // What does this module do?

int init(void);
void cleanup(void);

/* service keyboard interrupts handler */
irq_handler_t irq_handler(int irq, void *dev_id, struct pt_regs *regs)
{
    static unsigned char scancode;

    /* read keyboard */
    scancode = inb( 0x60 );
    if((scancode == 0x01) || (scancode == 0x81)) printk("interkey: ESC pressed\n");

    return (irq_handler_t) IRQ_HANDLED;
}

/* register the irq handler */
static int keybrd_int_register(void)
{
    int result;
    /* request irq 1 for keyboard using request_irq */

    /* check for success/failure */
    if(result) printk("interkey: failed to get shared interrupt for keyboard irq 1");

    return result;
}

/* remove the handler */
static void keybrd_int_unregister(void)
{
    /* free irq handler using free_irq */
}

int init(void)
{
    printk(KERN_INFO "init_module() called\n");

    printk("interkey: registering keyboard interrupt handler\n");
    keybrd_int_register();

    return 0;
}

void cleanup(void)
{
    printk("interkey: unregistering keyboard interrupt handler\n");
    keybrd_int_unregister();
    printk(KERN_ALERT "Unloading interkey ...\n");
}
```

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module_init(init);  
module_exit(cleanup);
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