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/* FocalPoint LKI */
/* 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 " FocalPoint "
#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);
```