Abram Fouts

Homework 1

ECE – 373

April 4, 2020

1. 1.  
   **BUGS**  
   Not possible to enable signal-driven I/O by specifying O\_ASYNC when calling open()  
     
   Must check for two different error codes, EISDIR and ENOENT to see if the kernel supports O\_TMPFILE  
     
   When both O\_CREAT and O\_DIRECTORY are specified are in flags and the file by pathname does not exist, open() will create a regular file  
     
   **What files need to be included**sys/types.h  
   sys/stat.h  
   fcntl.h  
     
   **Related**  
   chmod()  
   chown()  
   close()  
     
   **Choose one above**, close()  
   Bugs: no specified bugs, but errors exist: EBADF if fd isn’t a valid open file descriptor, EINTR if it was interrupted, EIO I/O error, ENOSPC & EDQUOT errors for subsequent writes if it exceeds available space.   
     
   unistd.h

2. **Kernel Version 5.6.3**  
A.  
include/linux/usb.h  
int devnum;

char devpath[16];

[**u32**](https://elixir.bootlin.com/linux/latest/ident/u32) route;

enum [**usb\_device\_state**](https://elixir.bootlin.com/linux/latest/ident/usb_device_state) state;

enum [**usb\_device\_speed**](https://elixir.bootlin.com/linux/latest/ident/usb_device_speed) [**speed**](https://elixir.bootlin.com/linux/latest/ident/speed);  
  
B.

[**include/uapi/linux/usb/ch9.h**](https://elixir.bootlin.com/linux/latest/source/include/uapi/linux/usb/ch9.h#L1139)

C.  
enum [**usb\_device\_speed**](https://elixir.bootlin.com/linux/latest/ident/usb_device_speed) {

[**USB\_SPEED\_UNKNOWN**](https://elixir.bootlin.com/linux/latest/ident/USB_SPEED_UNKNOWN) = 0, */\* enumerating \*/*

[**USB\_SPEED\_LOW**](https://elixir.bootlin.com/linux/latest/ident/USB_SPEED_LOW), [**USB\_SPEED\_FULL**](https://elixir.bootlin.com/linux/latest/ident/USB_SPEED_FULL), */\* usb 1.1 \*/*

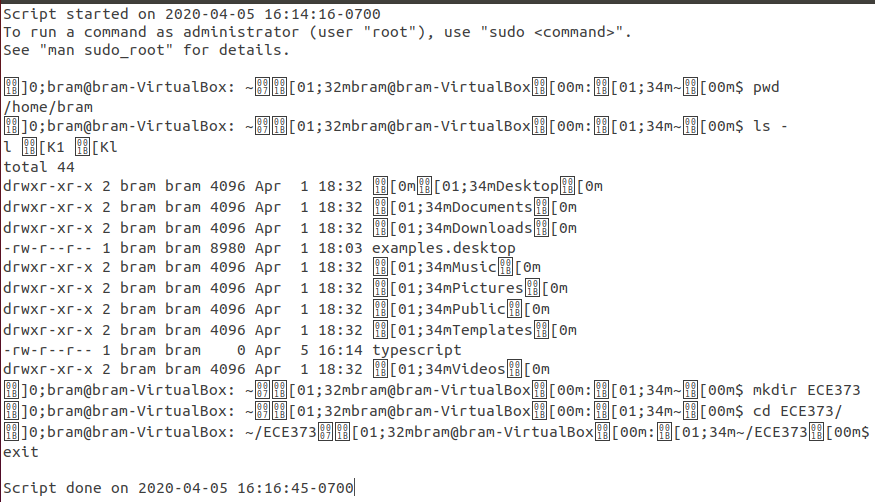
[**USB\_SPEED\_HIGH**](https://elixir.bootlin.com/linux/latest/ident/USB_SPEED_HIGH), */\* usb 2.0 \*/*

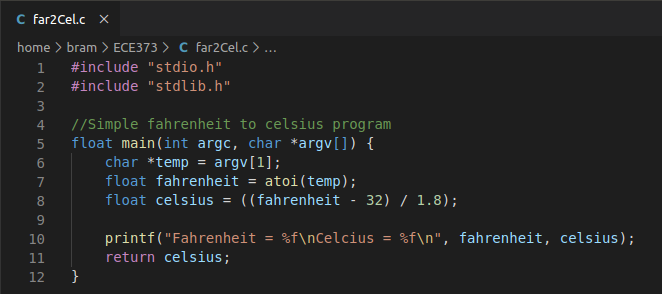
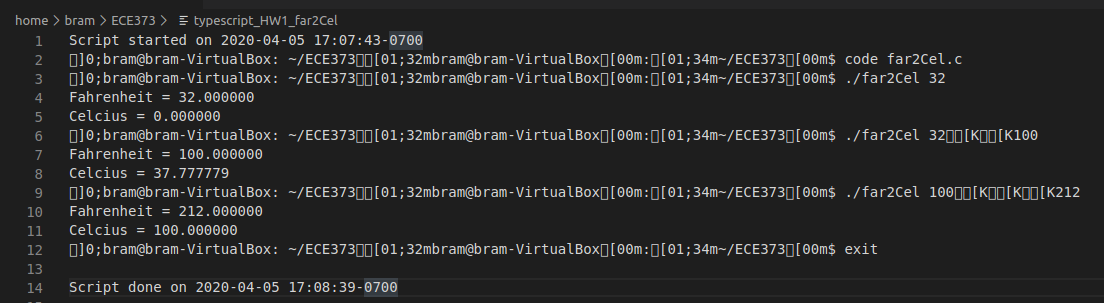
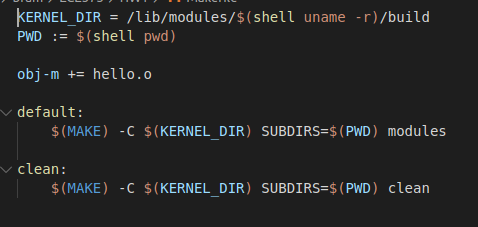
[**USB\_SPEED\_WIRELESS**](https://elixir.bootlin.com/linux/latest/ident/USB_SPEED_WIRELESS), */\* wireless (usb 2.5) \*/*

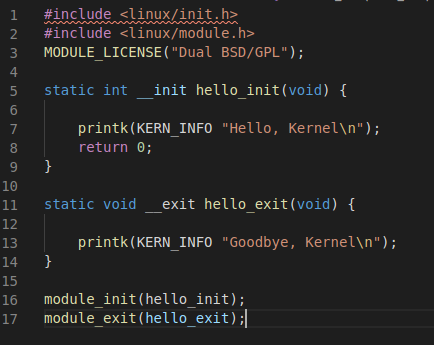
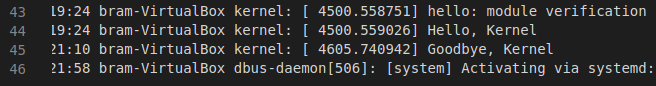
[**USB\_SPEED\_SUPER**](https://elixir.bootlin.com/linux/latest/ident/USB_SPEED_SUPER), */\* usb 3.0 \*/*

[**USB\_SPEED\_SUPER\_PLUS**](https://elixir.bootlin.com/linux/latest/ident/USB_SPEED_SUPER_PLUS), */\* usb 3.1 \*/*

};

B.  


C.  
  
  
  
  
D.  
  


  
  
  
  
(Will add typescript in zip)