#Operating System

1. *Question 1: What is the vm system called that is configured for assignment 0?*

Answer - OS\_161 supports a MIPS-only skeleton a VM System. It is just barely capable of running a single user level program as long as that program's not very large .

dumbvm

3. *Question 3. What bus/busses does OS/161 support?*

Answer - LAMEbus

Collected - from dev/lamebus/lamebus.c

5. *What function is called when user-level code generates a fatal fault?*

Answer - static void

kill\_curthread(vaddr\_t epc, unsigned code, vaddr\_t vaddr)

Collected from - kern/arch/mips/locore/trap.c

7. *Question 7. How many characters are allowed in an SFS volume name?*

Answer - 32 ( maximum length of volume name)

Collected from - Google

9. *Question 9. What is the standard interface to a file system (i.e., what functions must you implement to implement a new file system)?*

Answer - fs\_sync,fs\_getvolname, fs\_getroot, fs\_unmount

Collected from - kern/include/fs.h

11. *How large are OS/161 pids?*

Answer - \_\_i32 \_\_pid\_t; /\* Process ID \*/

Collected from - kern/include/kern/types.h

13. *What is the maximum path length in OS/161?*

Answer - #define \_\_PATH\_MAX 1024

Collected from - kern/include/kern/limits.h

15. *Question 15. Where is STDIN\_FILENO defined?*

Answer - /\* Constants for read/write/etc: special file handles \*/

#define STDIN\_FILENO 0 /\* Standard input \*/

Collected From - kern/include/kern/limits.h

17. *Question 17. What is the difference between splhigh and spl0?*

Answer - spl0() sets IPL to 0, enabling all interrupts.

splhigh() sets IPL to the highest value, disabling all interrupts.

Collected From - kern/include/spl.h

19. *Question 19. What is a zombie?*

Answer - Zombies are threads that have exited but still

need to have thread\_destroy called on them.

Collected From - kern/Thread/thread.c

21. *Question 21. What does a raw device name in OS/161 look like?*

Answer - kd\_rawname - Name of raw device (eg, "lhd0raw"). Is non-NULL if and

only if this device can have a filesystem mounted on

it.

Collected from - kern/vfs/vfslist.c

23. *Question 23. What device types are currently supported?*

Answer - Block and character devices

Collected From - kern/vfs/device.c