the Description of Problem 1

PsTree

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1. **Files**

   - pstree.c
   - Makefile

2. **How to operate**

   - Use command *make* to generate pstree.ko.
   - Use command *emulator –avd Y ourAvdName –kernelKernelLocation –show − kernel* to start AVD with a new kernel.
   - Use command *adb push #sourcepath# #target path on device#* to push pstree.ko to AVD.
   - Use command *adb shell* to use shell command like linux in AVD.
   - Use command *insmod pstree.ko* to install mod.
   - Use command *lsmod* to show whether the mod has been installed.

3. **Programming instructions**

   - static int pstree(struct prinfo *buf, int *nr)

     Instruction.

     Call function df sand use read_lock and read_unlock to protect the data. Then call function copy_pstree to copy data from task to buf.

   - void dfs(struct task_struct start, int deep)

     Instruction.

     Call function copyTask to traverse all data, use function $list_foreach$ to recursively call itself.

   - void copyTask(struct task_struct task, struct prinfo target, int depth)

     Instruction.

     Called by df s. in this function, copy those data from task[] to target[].