lab5 test

陈俊卉　学号：2020212256　班级：2020219111

Task 1

- 首先make

- 然后将文件引入blitz的模拟disk
- 最后运行

```
harryovo@harryovo-virtual-machine:~/Desktop/lab5$ make
kpl Kernel -unsafe
asm Kernel.s
lddd Runtime.o Switch.o System.o List.o BitMap.o Kernel.o Main.o -o os
harryovo@harryovo-virtual-machine:~/Desktop/lab5$ diskUtil -i
harryovo@harryovo-virtual-machine:~/Desktop/lab5$ diskUtil -a MyProgram MyProgram
harryovo@harryovo-virtual-machine:~/Desktop/lab5$ blitz -g os
Beginning execution...
===================  KPL PROGRAM STARTING  ====================
Initializing Thread Scheduler...
Initializing Thread Manager...
Initializing Frame Manager...
AllocateRandomFrames called.  NUMBER_OF_PHYSICAL_PAGE_FRAMES = 100
Initializing Disk Driver...
Initializing File Manager...

My user-level program is running!!!

FATAL ERROR in UserProgram: "Syscall 'Shutdown' was invoked by a user thread" -- TERMINATING!

(To find out where execution was when the problem arose, type 'st' at the emulator prompt.)

===================  KPL PROGRAM TERMINATION  ====================
```

Task2、3

- 首先make

- 然后将文件引入blitz的模拟disk
- 最后运行

```
harryovo@harryovo-virtual-machine:~/Desktop/lab5$ make
kpl Kernel -unsafe
asm Kernel.s
lddd Runtime.o Switch.o System.o List.o BitMap.o Kernel.o Main.o -o os
harryovo@harryovo-virtual-machine:~/Desktop/lab5$ diskUtil -i
harryovo@harryovo-virtual-machine:~/Desktop/lab5$ diskUtil -a TestProgram1 TestProgram1
harryovo@harryovo-virtual-machine:~/Desktop/lab5$ diskUtil -a TestProgram2 TestProgram2
harryovo@harryovo-virtual-machine:~/Desktop/lab5$ blitz -g os
Beginning execution...
==================== KPL PROGRAM STARTING ====================
Initializing Thread Scheduler...
Initializing Thread Manager...
Initializing Frame Manager...
AllocateRandomFrames called.  NUMBER_OF_PHYSICAL_PAGE_FRAMES = 100
Initializing Disk Driver...
Initializing File Manager...
User-level program 'TestProgram1' is running...

***** Testing Syscall Parameter Passing *****

***** About to call Sys_Yield...
***** Should print:
*****     Handle_Sys_Yield invoked!

Handle_Sys_Yield invoked!

***** About to call Sys_Fork...
***** Should print:
*****     Handle_Sys_Fork invoked!

Handle_Sys_Fork invoked!
```

```
***** About to call Sys_Join...
***** Should print:
*****      Handle_Sys_Join invoked!
*****      processID = 1111


Handle_Sys_Join invoked!
processID = 1111


***** About to call Sys_Create...
***** Should print:
*****      Handle_Sys_Create invoked!
*****      virt addr of filename = 0x0000BFF8
*****      filename = MyFileName


Handle_Sys_Create invoked!
virt addr of filename  = 0x0000BFF8
filename = MyFileName


***** About to call Sys_Open...
***** Should print:
*****      Handle_Sys_Open invoked!
*****      virt addr of filename = 0x0000BFF8
*****      filename = MyFileName


Handle_Sys_Open invoked!
virt addr of filename  = 0x0000BFF8
filename = MyFileName
```

```
***** About to call Sys_Read...
***** Should print:
*****        Handle_Sys_Read invoked!
*****        fileDesc = 2222
*****        virt addr of buffer = 0x0000B0B0
*****        sizeInBytes = 3333


Handle_Sys_Read invoked!
fileDesc = 2222
virt addr of buffer  = 0x0000B0B0
sizeInBytes = 3333


***** About to call Sys_Write...
***** Should print:
*****        Handle_Sys_Write invoked!
*****        fileDesc = 4444
*****        virt addr of buffer = 0x0000B0B0
*****        sizeInBytes = 5555


Handle_Sys_Write invoked!
fileDesc = 4444
virt addr of buffer  = 0x0000B0B0
sizeInBytes = 5555


***** About to call Sys_Seek...
***** Should print:
*****        Handle_Sys_Seek invoked!
*****        fileDesc = 6666
*****        newCurrentPos = 7777
```

```
Handle_Sys_Seek invoked!
fileDesc = 6666
newCurrentPos =7777

***** About to call Sys_Close...
***** Should print:
*****        Handle_Sys_Close invoked!
*****        fileDesc = 8888

Handle_Sys_Close invoked!
FileDesc = 8888

***** About to call Sys_Exit...
***** Should print:
*****        Handle_Sys_Exit invoked!
*****        returnStatus = 9999

Handle_Sys_Exit invoked!
returnStatus = 9999

***** Syscall Test Complete *****

***** Testing Exec Syscall *****

***** About to call Sys_Exec with a non-existant file...
***** Should print:
*****        Okay

Okay
```

易看版：

```
***** About to call Sys_Exec with an overly long file name...
***** Should print:
*****        Okay

Okay

***** About to perform a successful Exec and jump to TestProgram2...
***** Should print:
*****        User-level program 'TestProgram2' is running!

User-level program 'TestProgram2' is running!

***** About to call Sys_Shutdown...
***** Should print:
*****        FATAL ERROR in UserProgram: "Syscall 'Shutdown' was invoked by a user thread" -- TERMINATING!

FATAL ERROR in UserProgram: "Syscall 'Shutdown' was invoked by a user thread" -- TERMINATING!

(To find out where execution was when the problem arose, type 'st' at the emulator prompt.)

=================== KPL PROGRAM TERMINATION  ===================
```

易看版：

```
 1   harryovo@harryovo-virtual-machine:~/Desktop/lab5$ make
 2   kpl Kernel -unsafe
 3   asm Kernel.s
 4   lddd Runtime.o Switch.o System.o List.o BitMap.o Kernel.o Main.o -o os
 5   harryovo@harryovo-virtual-machine:~/Desktop/lab5$ diskUtil -i
 6   harryovo@harryovo-virtual-machine:~/Desktop/lab5$ diskUtil -a TestProgram1
     TestProgram1
 7   harryovo@harryovo-virtual-machine:~/Desktop/lab5$ diskUtil -a TestProgram2
     TestProgram2
 8   harryovo@harryovo-virtual-machine:~/Desktop/lab5$ blitz -g os
 9   Beginning execution...
10   ====================  KPL PROGRAM STARTING  ====================
11   Initializing Thread Scheduler...
12   Initializing Thread Manager...
13   Initializing Frame Manager...
14   AllocateRandomFrames called.  NUMBER_OF_PHYSICAL_PAGE_FRAMES = 100
15   Initializing Disk Driver...
16   Initializing File Manager...
17   User-level program 'TestProgram1' is running...
18
19   ***** Testing Syscall Parameter Passing *****
20
21   ***** About to call Sys_Yield...
22   ***** Should print:
23   *****     Handle_Sys_Yield invoked!
24
25   Handle_Sys_Yield invoked!
26
27   ***** About to call Sys_Fork...
28   ***** Should print:
29   *****     Handle_Sys_Fork invoked!
30
31   Handle_Sys_Fork invoked!
32
33   ***** About to call Sys_Join...
34   ***** Should print:
35   *****     Handle_Sys_Join invoked!
36   *****     processID = 1111
37
38   Handle_Sys_Join invoked!
39   processID = 1111
40
41   ***** About to call Sys_Create...
42   ***** Should print:
43   *****     Handle_Sys_Create invoked!
44   *****     virt addr of filename = 0x0000BFF8
45   *****     filename = MyFileName
46
47   Handle_Sys_Create invoked!
48   virt addr of filename  = 0x0000BFF8
49   filename = MyFileName
50
51   ***** About to call Sys_Open...
52   ***** Should print:
53   *****     Handle_Sys_Open invoked!
54   *****     virt addr of filename = 0x0000BFF8
55   *****     filename = MyFileName
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```
Handle_Sys_Open invoked!
virt addr of filename  = 0x0000BFF8
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Handle_Sys_Close invoked!
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***** Should print:
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*****      returnStatus = 9999

Handle_Sys_Exit invoked!
returnStatus = 9999

***** Syscall Test Complete *****

***** Testing Exec Syscall *****
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```
***** About to call Sys_Exec with a non-existant file...
***** Should print:
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***** About to call Sys_Exec with an overly long file name...
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