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## Exercise 1:

We have created a system call which copies the given wolfie.txt (ASCII image). Given that the buffer is large enough. If the call succeeds, we return the number of bytes copied, else return a negative value(i.e., -1) which implies not valid.

The following are significant changes we made to create the system call we want.

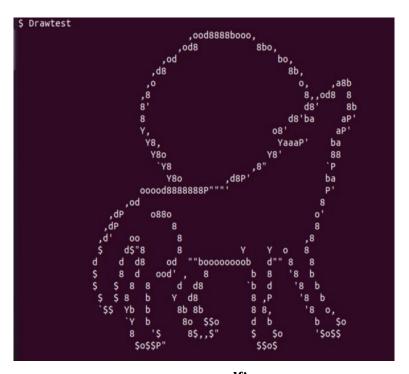
- **sysproc.c** : A function **int sys\_wolfie(void)** is implemented.
- **syscall.h**: It defines the position of system call vector(i.e., 22) which corresponds to the sys wolfie in the whole implementation.
- **syscall.c**: **extern int sys\_wolfie(void)**; connects the shell and kernel, and the system call function was added to the system call vector at the specified position in the syscall.h .
- **user.h**: Includes the system call **int wolfie(void \*buf,uint size);** in the user header file to copy the **wolfie.txt** image.
- **usys.s**: Creates a user level system call definition for the system call sys\_wolfie to connect user's call to the system call function.

## Exercise 2:

A file **Drawtest.c** was created that gets the image from the kernel, and prints it to the console if the buffer is large enough, else prints an error message.

- **Makefile** is edited so that includes just an extra line **\_Drawtest**\ in the **UPROGS**(user programs) part in the **Makefile**.
- And then we do **make clean** in xv6-public directory and **make** again. Now we run make qemu to see the image of **wolfie.txt** .
- Now we run **ls** to see the contents **fs.img** and then execute **Drawtest** in the xv6 shell's commnad prompt to get the wolfie image form kernel to print it to the console.

```
starting sh
 ls
                      512
README
echo
forktest
                 2
grep
                 2
init
                 2
kill
                 2
                 2
ln
ls
mkdir
stressfs
                   15
usertests
                   16
zombie
                   17
                       14824
Drawtest
                   18 15240
console
                 3
                   19 0
```



ls wolfie