

# CS344:Assignment-1

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## Ans-1

We edited the following files to add the system call:

(i)**syscall.h**-This file assigns numbers to system calls.**SYS\_draw** is the 22nd system call thus we add the following line:**#define SYS\_draw 22**

(ii)**syscall.c**-We add the following lines:**extern int sys\_draw(void)** and **[SYS\_draw] sys\_draw.**

(iii)**sysproc.c**-We implemented the system call function

```
int sys_draw(void){
```

```
}
```

(iv)**user.h**-We added the declaration for the following function which will be called by the user program **int draw(void\* buf, uint size);**

(v)**usys.S**-To create an interface to allow the user program to access system call we add the following line: **SYSCALL(draw)**

The call to the draw() function by the user program is mapped to the corresponding system call number 22 defined by the macro **SYS\_draw**.

## Ans-2

We save the **Drawtest.c** file in the **xv6-public** directory after which we make the following changes in the Makefile:

(i)We add **\_Drawtest\** under the **UPROGS** section in the Makefile

(ii)We add **Drawtest.c\** under the **EXTRA** section in the Makefile

After this we went into the **xv6-public** directory and ran the following commands:

(i)**make clean**(deletes old object files)

(ii)**make**(creates new object files after the changes in Makefile)

(iii)**make qemu**(starts qemu)

We check the contents of **fs.img** using the **ls** command and then execute the **Drawtest** file to draw the ascii art.