```c
/* to demonstrate use of dup() system call  */

#include<fcntl.h>

#include<unistd.h>

int main()

{

        int fd1, fd2;

        fd1=open("txt1.txt", O_RDONLY|O_CREAT,777);  //this file will be kept in slot 3.

        close(2); //0 is the file descriptor for std input, 1 for std output and 2 for error

//we are closing error file descriptor. Dup keeps the duplicated file descriptor to the immediate available fd slot. So generated fd should be kept in slot 2.

        dup(fd1);

        while(1)

        {


        }

}
```

```
/* how to test */

gcc –o dup Dup.c

./dup &

/* & is to find what is the process id */

[3] 2937

cd /proc/2937

/* proc is the file system that is tracking all the running processes */

/proc/2937$ ls

/*this is the process control block*/
```

/proc/2937$ cd fd

/proc/2937/fd$ ls –lrt

0 and 1 are standard input and output respectively.

Slot 3 is for txt1.txt and slot 2 is duplicated for txt1.txt