

# All Online Learning

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## **dup(),dup2() System Call:**

```
/*//dup.c
```

```
#include<unistd.h>
```

```
#include<stdio.h>
```

```
#include<fcntl.h>
```

```
int main()
```

```
{
```

```
int old_fd, new_fd;
```

```
old_fd=open("test.txt",O_RDWR);
```

```
printf("File descriptor is %d\n",old_fd);
```

```
new_fd=dup(old_fd);
```

```
printf("New file descriptor is %d\n",new_fd);
```

```
}
```

```
*/
```

```
/*OUTPUT
```

```
lm@lm-VirtualBox:~$ gcc dup.c
```

```
lm@lm-VirtualBox:~$ ./a.out
```

```
File descriptor is 3
```

```
New file descriptor is 4
```

```
*/
```

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```
/*//dup2.c
#include<unistd.h>
#include<stdio.h>
#include<fcntl.h>
int main()
{
int old_fd, new_fd;
old_fd=open("test.txt",O_RDWR);
printf("File descriptor is %d\n",old_fd);
new_fd=dup2(old_fd,7);
printf("New file descriptor is %d\n",new_fd);
}
*/
```

/\*OUTPUT

lm@lm-VirtualBox:~\$ gcc dup.c

lm@lm-VirtualBox:~\$ ./a.out

File descriptor is 3

New file descriptor is 7

\*/

//Program to show that both file descriptor point to the same file and same pointer position is maintained

```
#include<unistd.h>
```

```
#include<stdio.h>
```

```
#include<fcntl.h>
```

```
int main()
```

```
{
```

```
int old_fd, new_fd;
```

```
char buff[10];
```

```
old_fd=open("test.txt",O_RDWR);
```

```
read(old_fd,buff,10);//read first 10 characters using old file descriptor
```

```
write(1,buff,10);//prints them on screen
```

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```
new_fd=dup(old_fd);//duplicates file descriptor
read(old_fd,buff,10);//this read will read the next 10 characters even if new
file descriptor is used
write(1,buff,10);
}
```

/\*OUTPUT

```
lm@lm-VirtualBox:~$ cat test.txt
```

This is test.text file

```
lm@lm-VirtualBox:~$ gcc dup.c
```

```
lm@lm-VirtualBox:~$ ./a.out
```

This is test.text fi

```
lm@lm-VirtualBox:~$ */
```