Types of System Calls

- `File Management` : are responsible for file manipulation such as creating a file, reading a file, writing into a file etc.

- `Information Maintenance` : handle information and its transfer between the operating system and the user program.

- `Process Control` : deal with processes such as process creation, process termination etc.

- `Device Management` : are responsible for device manipulation such as reading from device buffers, writing into device buffers etc.

- `Signalling` : are useful for interprocess communication. They also deal with creating and deleting a communication connection.

SysCall	Description	rax	rdi	rsi	rdx	r10	r8	r9
read	read from a file descriptor	0	unsigned int fd	char *buf	size_t count			
write	write to a file descriptor	1	unsigned int fd	const char *buf	size_t count			
open	open a file or device	2	const char *filename	int flags	int mode			
close	close a file descriptor	3	unsigned int fd					
stat	get file status	4	const char *filename	struct stat *statbuf				
fstat	get file status	5	unsigned int fd	struct stat *statbuf				
lstat	get file status	6	fconst char *filename	struct stat *statbuf				
poll	wait for some event on a file descriptor	7	struct poll_fd *ufds	unsigned int nfds	long timeout_msecs			
lseek	reposition read/write file offset	8	unsigned int fd	off_t offset	unsigned int origin			
mmap	map pages of memory	9	unsigned long addr	unsigned long len	unsigned long prot	unsigned long flags	unsigned long fd	unsigned long offset
mprotect	set protection of memory mapping	10	unsigned long start	size_t len	unsigned long prot			
munmap	unmap pages of memory	11	unsigned long addr	size_t len				
brk	change data segment size	12	unsigned long brk					
rt_sigaction	examine and change a signal action	13	int sig	const struct sigaction *act	struct sigaction *oact	size_t sigsetsize		
rt_sigprocmask	examine and change blocked signals	14	int how	sigset_t *nset	sigset_t *oset	size_t sigsetsize		
rt_sigreturn	return from signal handler and cleanup stack frame	15	unsigned long					
ioctl	control device	16	unsigned int fd	unsigned int cmd	unsigned long arg			
pread64	read from or write to a file descriptor at a given offset	17	unsigned long fd	char *buf	size_t count	loff_t pos		
cmd	a description	n						
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References

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- LINUX System Call Quick Reference
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