

Script started on 2020-03-29 21:43:05+0530

```
[0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc  
[00m$ gcc case.c -o ca
```

```
[0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc  
[00m$ gcc file_transer.c -o file
```

```
[0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc  
[00m$ gcc client.c -o c
```

```
[0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc  
[00m$ gcc server.c -o s
```

```
[0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc  
[00m$ cat case.c
```

```
#include<sys/ipc.h>
```

```
#define NULL 0
```

```
#include<sys/shm.h>
```

```
#include<sys/types.h>
```

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

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

```
#include<string.h>
```

```
#include<stdlib.h>
```

```
#include<sys/wait.h>
```

```
void strupr(char *a)
```

```
{
```

```
    for(int i = 0; a[i] != '\0'; i++)
```

```
        a[i] -= (a[i] >= 'a' && a[i] <= 'z') ? 32 : 0;
```

```
}
```

```
int main()
```

```
{
```

```
    int pid, id;
```

```
    char *a, *b;
```

```
    id = shmget(111, 50, IPC_CREAT | 00666);
```

```
    pid = fork();
```

```
    if(pid > 0)
```

```
{
```

```
        a = shmat(id, NULL, 0);
```

```
        a[0] = '\0';
```

```
        printf("Enter a string: ");
```

```
        scanf("%s", a);
```

```
        wait(NULL);
```

```
        shmdt(a);
```

```
}
```

```
else
```

```
{
```

```
        b = shmat(id, NULL, 0);
```

```

        while(b[0] == '\0');
       strupr(b);
        printf("Uppercase: %s\n", b);
        shmdt(b);
    }
    shmctl(id, IPC_RMID, NULL);
}

```

[0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc

[00m\$ cat fie [Kle \_transer.c

```

#include <sys/ipc.h>
# define NULL 0
#include <sys/shm.h>
#include <sys/types.h>
#include<unistd.h>
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
#include <sys/wait.h>
#include <stdio_ext.h>
#include<ctype.h>
#include<sys/stat.h>
#include<fcntl.h>
#include<unistd.h>

```

```

int main()
{
    char *a,*b,c;
    int id,n,i;
    int size;
    int pid;
    int fs;
    char *fname;
    printf("\n FILE TRANSER \n");
    int pid_file;
    int rd;
    pid_file = shmget(111,50, IPC_CREAT| 00666 );
    pid=fork();
    if(pid>0)
    {
        printf("Inside parent process \n");
        a = (char*)shmat(pid_file,NULL,0);
        printf("Enter the file name to be transferred \n");
    }
}

```

```

scanf(" %c\n",fname);
fs = open(fname, O_RDONLY);
if(fs == -1)
    printf("file does not exists \n");
else
{
    size = read(fs,a,500);
    a[size] = '\n';
}
wait(NULL);
close(fs);
shmdt(a);
}
else
{
    sleep(4);
    printf("Inside Child Process \n");

    b = (char*)shmat(pid_file,NULL,0);
    printf("Enter destination file name \n");
    scanf("%c\n",fname);
    int fd = open(fname,O_WRONLY |O_CREAT| O_TRUNC ,S_IRUSR|S_IRWXU| 00666);
    if(fd == -1)
    {
        printf("Destination doesnt exist \n");
        creat(fname,O_RDWR | 00666);
    }
    write(fd,b,200);
    printf("File copied \n");
    close(fd);
    shmdt(b);
}
shmctl(pid_file,IPC_RMID,NULL);
}

```

[01;32mHarshini@Harshini: ~/Desktop/ipc [01;34m~/.Desktop/ipc

[00m\$ cat server.c

```

#include<sys/ipc.h>
#define NULL 0
#include<sys/shm.h>
#include<sys/types.h>
#include<unistd.h>
#include<stdio.h>
#include<string.h>

```

```

#include<stdlib.h>
#include<sys/wait.h>
int main()
{
    int id;
    char *a;
    id = shmget(115, 50, IPC_CREAT | 00666);
    a = shmat(id, NULL, 0);
    while(1) {
        a[0] = '\0';
        printf("You: ");
        scanf("%s", a);
        if(a[0] == '*') break;
        sleep(1);
        while(a[0] == '\0');
        printf("Server: %s\n", a);
        if(a[0] == '*') break;
    }
    printf("Connection Ended!\n");
    shmdt(a);
    shmctl(id, IPC_RMID, NULL);
}

```

[0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc  
 [00m\$ cat client.c

```

#include<sys/ipc.h>
#define NULL 0
#include<sys/shm.h>
#include<sys/types.h>
#include<unistd.h>
#include<stdio.h>
#include<string.h>
#include<stdlib.h>
#include<sys/wait.h>
int main()
{
    char *a;
    int id = shmget(115, 50, IPC_CREAT | 00666);
    a = shmat(id, NULL, 0);
    while(1) {
        while(a[0] == '\0');
        printf("Client: %s\n", a);
        if(a[0] == '*') break;
    }
}

```

```

        a[0] = '\0';
        printf("You: ");
        scanf("%s", a);
        if(a[0] == '*') break;
        sleep(1);
    }
    printf("Connection Ended!\n");
    shmdt(a);
    shmctl(id, IPC_RMID, NULL);
}
]0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc
[00m$ ./ca
Enter a string: kasd #   asd   24
Uppercase: KASDA24
]0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc
[00m$ ./file

```

## FILE TRANSFER

Inside parent process

Enter the file name to be transferred

mcp.c

Inside Child Process

Enter destination file name

check.c

File copied

```

]0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc
[00m$ cat check.c [K [K.c
#include <stdio.h>
#include <stdlib.h>
#include <fcntl.h>
#include <errno.h>
#include <unistd.h>

```

```

int main(int argc, char *argv[])
{

```

```

    int src, dest, rd, wrt;
    char c;
    char *buff[1024];

```

```

    if(argc<3 | ]0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m:
[01;34m~/Desktop/ipc [00m$ ./c [Ks
You: Hi
Server: Hello

```

You: HGa    ave a gog    ood dat   y  
Server: server  
You: Server: a  
You: Server: good  
You: Server: day  
You: bye

]0;Harshini@Harshini: ~/Desktop/ipc [01;32mHarshini@Harshini [00m: [01;34m~/Desktop/ipc  
[00m\$ exit  
exit

// client output  
Client: Hi  
You: Hello server  
Client: Have  
You: Client: server  
You: you too  
Client: you  
You: Client: too  
You: \$bye

Script done on 2020-03-29 21:45:34+0530