

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

```
]0;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [00m: [01;34m~/Desktop/ipc [00m$ gcc case.c -o ca
]0;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [00m: [01;34m~/Desktop/ipc [00m$ gcc file_transer.c
-o file
]0;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [00m: [01;34m~/Desktop/ipc [00m$ gcc client.c -o c
]0;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [00m: [01;34m~/Desktop/ipc [00m$ gcc server.c -o s
]0;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [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;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [00m: [01;34m~/Desktop/ipc [00m$ cat fie [Kle _tra
nser.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(" %[^\\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("%[^\\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);
}
]0;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [00m: [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;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [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;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [00m: [01;34m~/Desktop/ipc [00m$ ./ca
Enter a string: kasd #    asd    24
Uppercase: KASDA24
]0;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [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;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [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;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [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;GAYU@GAYU: ~/Desktop/ipc [01;32mGAYU@GAYU [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