**\*\*\*SERVER.C\*\*\***

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

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

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

**#include<unistd.h>**

**#include<stdio.h>**

**#include<string.h>**

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

**#include<stdio\_ext.h>**

**#include<fcntl.h>**

**#include<sys/stat.h>**

**#include<stdlib.h>**

**void transfer(char name[50]);**

**void main(){**

**int op;**

**do{**

**int pid;**

**char \*a,\*b,\*c,name[50];**

**int id,n,i=0,option;**

**id=shmget(111,50,IPC\_CREAT|00666);**

**printf("\n1.To Enter a name which will be converted into uppercase that can be viewed by the client ");**

**printf("\n2.To share or Receive a file with the client");**

**printf("\n3.To chat with client");**

**scanf("\n%d",&op);**

**switch(op){**

**case 1:**

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

**printf("\n Enter the name");**

**scanf(" %[^\n]",a);**

**printf("%s",a);**

**sleep(20);**

**shmdt(a);**

**break;**

**case 2:**

**printf("\n1.Share a file to client" );**

**printf("\n2.Receive a file from client");**

**scanf("%d",&option);**

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

**if(option==1){**

**printf("\n Enter the name of the file that is to be shared with the client");**

**scanf(" %[^\n]",b);**

**sleep(20);}**

**else if(option==2){**

**transfer(b);**

**}**

**shmdt(b);**

**break;**

**case 3:**

**printf("\n1.Send a message to client" );**

**printf("\n2.To read all the chats");**

**scanf("%d",&option);**

**c=shmat(id,NULL,0);**

**if(option==1){**

**scanf(" %[^\n]",c);**

**sleep(15);**

**}**

**else if(option==2){**

**printf("%s",c);**

**}**

**shmdt(c);**

**}**

**shmctl(id,IPC\_RMID,NULL);**

**}while(op!=4);**

**}**

**void transfer(char name[50])**

**{**

**char \*c=(char\*)calloc(100,sizeof(char));**

**int fd=open(name,O\_RDONLY);**

**if(fd==-1){**

**printf("\nprocess failed");**

**exit(1);**

**}**

**else{**

**printf("\nsuccess in opening of the file");**

**int sz=read(fd,c,50);**

**c[sz]='\0';**

**printf("\n%s",c);**

**close(fd);**

**}**

**}**

**\*\*\*CLIENT.C\*\*\***

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

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

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

**#include<unistd.h>**

**#include<stdio.h>**

**#include<string.h>**

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

**#include<stdio\_ext.h>**

**#include<fcntl.h>**

**#include<sys/stat.h>**

**#include<stdlib.h>**

**#include<ctype.h>**

**void transfer(char name[50]);**

**void main(){**

**int op;**

**do{**

**int pid;**

**char \*a,\*b,\*c,name[50],ch;**

**int id,n,option,i=0;**

**id=shmget(111,50,IPC\_CREAT|00666);**

**printf("\n1.To Convert into uppercase given by the server");**

**printf("\n2.To share or Receive a file with the server");**

**printf("\n3.To chat with server");**

**scanf("\n%d",&op);**

**switch(op){**

**case 1:**

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

**n=strlen(a);**

**while (a[i]) {**

**ch = a[i];**

**putchar(toupper(ch));**

**i++;**

**}**

**shmdt(a);**

**break;**

**case 2:**

**printf("\n1.Share a file to client" );**

**printf("\n2.Receive a file from client");**

**scanf("%d",&option);**

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

**if(option==1){**

**printf("\n Enter the name of the file that is to be shared with the client");**

**scanf(" %[^\n]",b);**

**sleep(20);**

**}**

**else if(option==2){**

**transfer(b);**

**}**

**shmdt(b);**

**break;**

**case 3:**

**printf("\n1.Send a message to client" );**

**printf("\n2.To read all the chats");**

**scanf("%d",&option);**

**c=shmat(id,NULL,0);**

**if(option==1){**

**scanf(" %[^\n]",c);**

**sleep(15);**

**}**

**else if(option==2){**

**printf("%s",c);**

**}**

**shmdt(c);**

**break;**

**}**

**shmctl(id,IPC\_RMID,NULL);**

**}while(op!=4);**

**}**

**void transfer(char name[50])**

**{**

**char \*c=(char\*)calloc(100,sizeof(char));**

**int fd=open(name,O\_RDONLY);**

**if(fd==-1){**

**printf("\nprocess failed");**

**exit(1);**

**}**

**else{**

**printf("\nsuccess in opening of the file");**

**int sz=read(fd,c,50);**

**c[sz]='\0';**

**printf("\n%s",c);**

**close(fd);**

**}**

**}**

**\*\*\*SOURCE.TXT\*\*\***

**THIS IS OS LAB**