Client:

#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>

int find(char \*a)

{

int l=strlen(a);

if(a[l-1]=='#')

{

//printf("\nClient Turn\n");

return 1; // '#' is used to identify a client

}

//printf("\nServer Turn\n");

return 0; // '@' is used to identify a server.

}

void changeTurn(char \*a)

{

int l=strlen(a);

if(a[l-1]=='#') //if client turn to server

{

//printf("\nLine 1");

a[l-1]='@';

return ;

}

if(a[l-1]=='@') //if server turn to client

{

//printf("\nLine 2");

a[l-1]='#';

return ;

}

}

int main()

{

int id=0;

char \*a;

id=shmget(124,50,IPC\_CREAT | 0666);

a=shmat(id,NULL,0);

int j=1;

//Initially its the turn of the client.

strcpy(a,"#");

while(1==1)

{

if(strcmp(a,"end#")==0)

{

printf("\nChat Terminated\n");

exit(0);

}

if(find(a)) //meaning if client turn

{

if(a!=NULL)

{

puts(a);

}

printf("\nClient: ");

gets(a);

strcat(a,"#");

changeTurn(a);

if(strcmp(a,"end@")==0)

{

printf("\nChat Terminated\n");

exit(0);

}

printf("\n(Turn: Server)\n");

}

}

}//emg

Server:

#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>

int find(char \*a)

{

int l=strlen(a);

if(a[l-1]=='#')

{

//printf("\nClient Turn\n");

return 1; // '#' is used to identify a client

}

//printf("\nServer Turn\n");

return 0; // '@' is used to identify a server.

}

void changeTurn(char \*a)

{

int l=strlen(a);

if(a[l-1]=='#') //if client turn to server

{

//printf("\nLine 1");

a[l-1]='@';

return ;

}

if(a[l-1]=='@') //if server turn to client

{

//printf("\nLine 2");

a[l-1]='#';

return ;

}

}

int main()

{

int id=0;

char \*a;

char buff[100];

id=shmget(124,50,IPC\_CREAT | 0666);

a=shmat(id,NULL,0);

int j=1;

//Initially its the turn of the client.

while(1==1)

{

if(strcmp(a,"end@")==0)

{

printf("\nChat Terminated\n");

exit(0);

}

if(find(a)==0) //meaning if server turn

{

if(a!=NULL)

{

puts(a);

}

printf("\nServer: ");

gets(a);

strcat(a,"@");

changeTurn(a);

if(strcmp(a,"end#")==0)

{

printf("\nChat Terminated\n");

exit(0);

}

printf("\n(Turn: Client)\n");

}

}

}//emg

Output:

