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#include<stdio.h>

#include<stdlib.h>

#include<sys/socket.h>

#include<sys/types.h>

#include<netinet/in.h>

#include<sys/time.h>

#include<string.h>

#include<unistd.h>

#include<arpa/inet.h>

int main()

{

int c_sock;

c_sock=socket(AF_INET,SOCK_STREAM,0);

struct sockaddr_in client;

memset(&client,0,sizeof(client));

client.sin_family=AF_INET;

client.sin_port=htons(9009);

client.sin_addr.s_addr=inet_addr("127.0.0.1");

if(connect(c_sock,(struct sockaddr*)&client,sizeof(client))!=-1)

{

printf("Connection failed");

return 0;

}

printf("\n\tClient-with individual acknowledgement scheme\n\n");

char msg1[50]="acknowledgement of:";

char msg2[50];

char buff[100];

int flag=1,flg=1,i;

for(i=0;i<=9;i++)

{

flg=1;

bzero(buff,sizeof(buff));

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bzero(msg2,sizeof(msg2));

if(i==8&&flag==1)
{
printf("here\n");
flag=0;
read(c_sock,buff,sizeof(buff));
}
int n=read(c_sock,buff,sizeof(buff));
if(buff[strlen(buff)-1]!=i+'0')
{
printf("Discarded as out of order\n");
i--;
}
else
{
printf("Message received from server:%s\t%d\n",buff,i);
printf("Acknowledgement sent for message\n");
strcpy(msg2,msg1);
msg2[strlen(msg2)]=i+'0';
write(c_sock,msg2,sizeof(msg2));
}
}

close(c_sock);

return 0;
}
```