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1  #include <sys/types.h>
2  #include <sys/socket.h>
3  #include <stdio.h>
4  #include <netinet/in.h>
5  #define MAXLINESIZE 100
6  #define SERV_PORT 8000
7
8
9  int main(int argc, char** argv)
10 {
11     int sockfd;
12     struct sockaddr_in servaddr, cliaddr;
13     int n;
14     socklen_t len;
15     char mesg [MAXLINESIZE];
16
17     /*Create socket*/
18     sockfd = socket(AF_INET,SOCK_DGRAM,0);
19
20     /*Initialize socket address structure*/
21     bzero(&servaddr,sizeof(servaddr));
22     servaddr.sin_family = AF_INET;
23     servaddr.sin_addr.s_addr = htonl(INADDR_ANY);
24     servaddr.sin_port = htons(SERV_PORT);
25
26     /*bind socket address to the socket*/
27     bind(sockfd,(struct sockaddr*)&servaddr,sizeof(servaddr));
28
29     for(;; )
30     {
31         len=sizeof(cliaddr);
32         /*wait for datagram to arrive, receive a datagram*/
33         n=recvfrom(sockfd,mesg,MAXLINESIZE,0,(struct sockaddr*)&cliaddr,&len);
34         /*send back the datagram to the client from which it arrived*/
35         sendto(sockfd,mesg,n,0,(struct sockaddr*)&cliaddr,len);
36     }
37 }
38
39
40
41
42
43
44 ECHOUDPCLIENT
45
46 #include <sys/types.h>
47 #include <sys/socket.h>
48 #include <stdio.h>
49 #include <netinet/in.h>
50 #define MAXLINE 100
51 #define SERV_PORT 8000
52
53
54 int main(int argc, char** argv)
55 {
56     int sockfd;
57     struct sockaddr_in servaddr;
58     int n;
59     char sendline[MAXLINE],recvline[MAXLINE];
60
61     if(argc!=2)
62     {
63         fprintf(stderr,"Usage: %s IP-Address\n",argv[0]);
64         exit(-1);
65     }
66
67     /*Initialize socket address structure*/
68     bzero(&servaddr,sizeof(servaddr));
69     servaddr.sin_family = AF_INET;

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70     if(inet_pton(AF_INET,argv[1], &servaddr.sin_addr)<0)
71         fprintf(stderr,"Error in inet_pton");
72     servaddr.sin_port = htons(SERV_PORT);
73
74     /*Create socket*/
75     sockfd = socket (AF_INET,SOCK_DGRAM,0);
76     while(fgets(sendline,MAXLINE,stdin)!=NULL)
77     {
78         /*Send the message to the server*/
79         sendto(sockfd,sendline,strlen(sendline),0,(struct
80         sockaddr*)&servaddr,sizeof(servaddr));
81         /*wait for response and receive the response*/
82         n = recvfrom(sockfd,recvline,MAXLINE,0,NULL,NULL);
83         recvline[n] = 0;
84         /*Display what the server sent in reply*/
85         fputs(recvline,stdout);
86     }
87
88
89
90
```