21BPS1191
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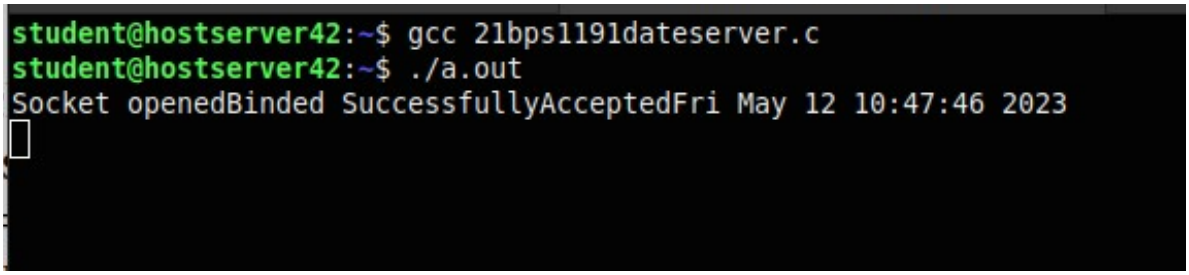
LAB3 COMPUTER NETWORKS

DATE AND TIME SERVER

SERVER SIDE:

```
#include"unistd.h"
#include"netinet/in.h"
#include"stdlib.h"
#include"sys/socket.h"
#include"stdio.h"
#include"string.h"
#include"time.h"
void main( ) {
struct sockaddr_in sa;
struct sockaddr_in cli;
int sockfd,conntfd;
int len,ch;
char str[100];
time_t tick;
sockfd=socket(AF_INET,SOCK_STREAM,0);
if(sockfd<0) {
printf("error in socket\n");
exit(0);
}
else
printf("Socket opened");
bzero(&sa,sizeof(sa));
sa.sin_port=htons(5600); sa.sin_addr.s_addr=htonl(0);
if(bind(sockfd,(struct sockaddr*)&sa,sizeof(sa))<0) {
printf("Error in binding\n");
}
else
printf("Binded Successfully");
listen(sockfd,50);
for(;;) { len=sizeof(ch); conntfd=accept(sockfd,(struct sockaddr*)&cli,&len); printf("Accepted");
tick=time(NULL); snprintf(str,sizeof(str),"%s",ctime(&tick)); printf("%s",str);
write(conntfd,str,100);
}
}
```

OUTPUT:



CLIENT SIDE:

```
#include"unistd.h"
#include"netinet/in.h"
#include"stdlib.h"
#include"sys/socket.h"
#include"stdio.h"
#include"string.h"
#include"time.h"

void main() {
struct sockaddr_in sa,cli;
int n,sockfd;
int len;
char buff[100];
sockfd=socket(AF_INET,SOCK_STREAM,0);
if(sockfd<0) {
printf("\nError in Socket");
exit(0);
}
else
printf("\nSocket is Opened");
bzero(&sa,sizeof(sa));
sa.sin_family=AF_INET;
sa.sin_port=htons(5600);
if(connect(sockfd,(struct sockaddr*)&sa,sizeof(sa))<0) {
printf("\nError in connection failed");
exit(0);
}
else
printf("\nconnected successfully");
if(n=read(sockfd,buff,sizeof(buff))<0) {
printf("\nError in Reading");
exit(0);
}
else
{
printf("\nMessage Read %s",buff); }
}
```

OUTPUT: