Department of Computer Engineering

(NBA Accredited)

Academic Year 2022-23

Roll Number: 51

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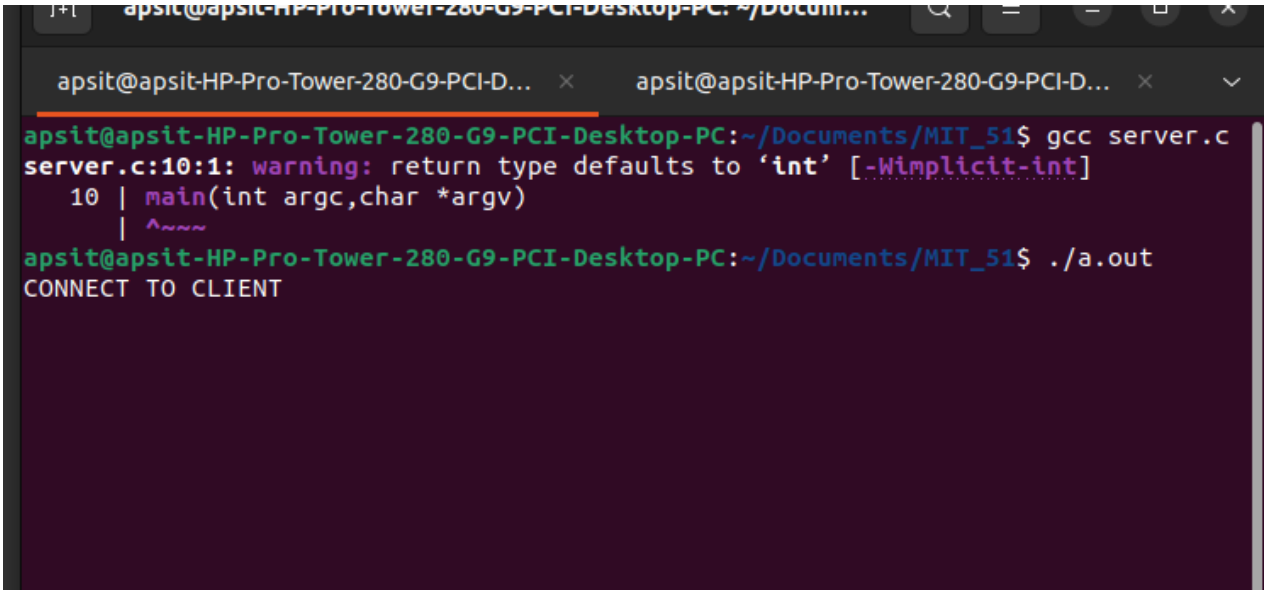
Lab number: 8

Programs with respective output (screenshot):

server.c

```
#include<stdio.h>
#include<unistd.h>
#include<string.h>
#include<sys/socket.h>
#include<stdlib.h>
#include<netinet/in.h>
#include<sys/types.h>
#define MAXLINE 20
#define SERV_PORT 5777
 main(int argc,char *argv)
{
 int i,j;
ssize_t n;
char line[MAXLINE],revline[MAXLINE];
 int listenfd,connfd,clilen;
struct sockaddr_in servaddr,cliaddr;
 listenfd=socket(AF_INET,SOCK_STREAM,0);
 bzero(&servaddr,sizeof(servaddr));
servaddr.sin_family=AF_INET;
servaddr.sin_port=htons(SERV_PORT);
 bind(listenfd,(struct sockaddr*)&servaddr,sizeof(servaddr));
```

```
 listen(listenfd,1);
for(;;)
{
clilen=sizeof(cliaddr);
connfd=accept(listenfd,(struct sockaddr*)&cliaddr,&clilen);
 printf("CONNECT TO CLIENT\n");
while(1)
{ if((n=read(connfd,line,MAXLINE))==0)
 break;
 line[n-1]='\0';
j=0;
 for(i=n-2;i>=0;i--)
 revline[j++]=line[i];
 revline[j]='\0';
write(connfd,revline,n);}
}
}
```



client.c

```
#include<stdio.h>
#include<unistd.h>
#include<string.h>
#include<sys/socket.h>
#include<stdlib.h>
#include<netinet/in.h>
#include<sys/types.h>
#define MAXLINE 20
#define SERV_PORT 5777
 main(int argc,char *argv)
{
```

```
char sendline[MAXLINE],revline[MAXLINE]; int sockfd;
struct sockaddr_in servaddr; sockfd=socket(AF_INET,SOCK_STREAM,0);
 bzero(&servaddr,sizeof(servaddr));
servaddr.sin_family=AF_INET;servaddr.sin_port=ntohs(SERV_PORT);
connect(sockfd,(struct sockaddr*)&servaddr,sizeof(servaddr));
 printf("Enter the data to be sent\n");
while(fgets(sendline,MAXLINE,stdin)!=NULL)
{
write(sockfd,sendline,strlen(sendline));
 printf("\n Line sent");
 read(sockfd,revline,MAXLINE);
 printf("\nReverse of the given sentence is %s",revline);
 printf("\n");
}
exit(0); }
```