Ankit Raj
1906534
CN lab 3

1. Write a client server program where the client sends and the server accepts it and prints it till exit is not sent.

```c
#include <arpa/inet.h>
#include <netinet/in.h>
#include <stdio.h>
#include <string.h>
#include <sys/socket.h>
#include <sys/stat.h>
#include<unistd.h>
#include <sys/types.h>
int main()
{
struct sockaddr_in client, server;
int s, n, sock,flag_534=0;
char b1_534[20];
s = socket(AF_INET, SOCK_STREAM, 0);
server.sin_family = AF_INET;
server.sin_port = 2000;
server.sin_addr.s_addr = inet_addr("127.0.0.1");
bind(s, (struct sockaddr*)&server, sizeof server);
listen(s, 1);
n = sizeof client;
sock = accept(s, (struct sockaddr*)&client, &n);
while(flag_534==0)
{
recv(sock, b1_534, sizeof(b1_534), 0);
if(strcmp(b1_534,"exit")==0)
flag_534=1;
printf("\nThe string received is:%s\n", b1_534);
}
close(sock);
close(s);
}
```
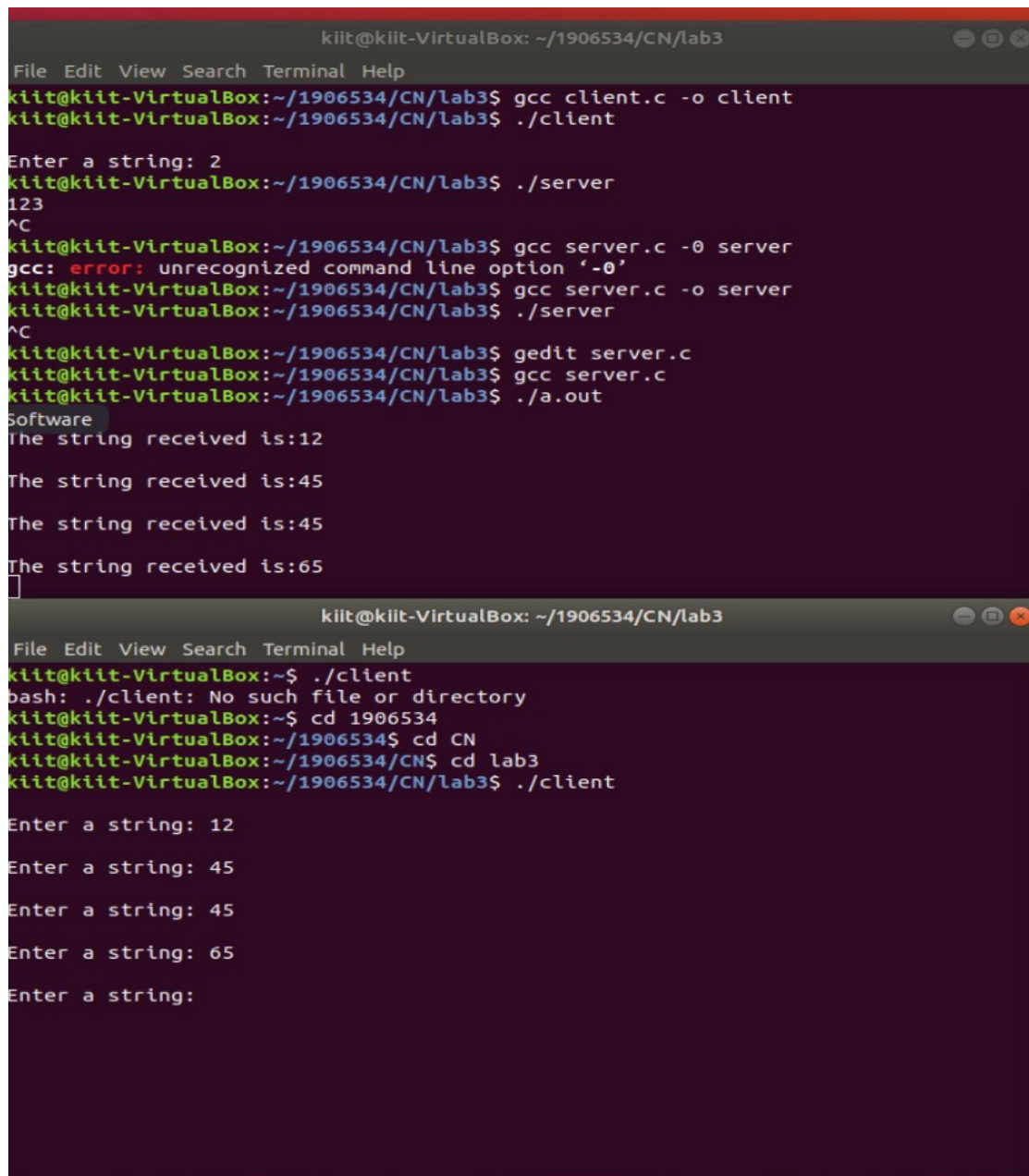
```c
#include <arpa/inet.h>
#include <netinet/in.h>
#include <stdio.h>
#include <string.h>
#include <sys/socket.h>
#include<unistd.h>
#include <sys/stat.h>
#include <sys/types.h>
int main()
{
struct sockaddr_in client;
int s, flag_534;
char buffer_534[20];
s = socket(AF_INET, SOCK_STREAM, 0);
client.sin_family = AF_INET;
client.sin_port = 2000;
client.sin_addr.s_addr = inet_addr("127.0.0.1");
connect(s, (struct sockaddr*)&client, sizeof client);
for (;;) {
printf("\nEnter a string: ");
scanf("%s", buffer_534);
send(s, buffer_534, sizeof(buffer_534), 0);
if(strcmp(buffer_534,"exit")==0)
break;
}
close(s);
}
```

OUTPUT:


```
kiit@kiit-VirtualBox: ~/1906534/CN/lab3
File Edit View Search Terminal Help
kiit@kiit-VirtualBox:~/1906534/CN/lab3$ gcc client.c -o client
kiit@kiit-VirtualBox:~/1906534/CN/lab3$ ./client

Enter a string: 2
kiit@kiit-VirtualBox:~/1906534/CN/lab3$ ./server
123
^C
kiit@kiit-VirtualBox:~/1906534/CN/lab3$ gcc server.c -0 server
gcc: error: unrecognized command line option '-0'
kiit@kiit-VirtualBox:~/1906534/CN/lab3$ gcc server.c -o server
kiit@kiit-VirtualBox:~/1906534/CN/lab3$ ./server
^C
kiit@kiit-VirtualBox:~/1906534/CN/lab3$ gedit server.c
kiit@kiit-VirtualBox:~/1906534/CN/lab3$ gcc server.c
kiit@kiit-VirtualBox:~/1906534/CN/lab3$ ./a.out
Software
The string received is:12

The string received is:45

The string received is:45

The string received is:65
```

```
kiit@kiit-VirtualBox: ~/1906534/CN/lab3
File Edit View Search Terminal Help
kiit@kiit-VirtualBox:~$ ./client
bash: ./client: No such file or directory
kiit@kiit-VirtualBox:~$ cd 1906534
kiit@kiit-VirtualBox:~/1906534$ cd CN
kiit@kiit-VirtualBox:~/1906534/CN$ cd lab3
kiit@kiit-VirtualBox:~/1906534/CN/lab3$ ./client

Enter a string: 12

Enter a string: 45

Enter a string: 45

Enter a string: 65

Enter a string:
```

2. Write a client server program to reverse a number which client sends to the server

```c
#include <arpa/inet.h>
#include <netinet/in.h>
#include<unistd.h>
#include <stdio.h>
#include <string.h>
#include<stdlib.h>
#include <sys/socket.h>
#include <sys/stat.h>
#include <sys/types.h>
int main()
{
struct sockaddr_in client, server;
int s, n, sock;
char a_534[100],*b;
s = socket(AF_INET, SOCK_STREAM, 0);
server.sin_family = AF_INET;
server.sin_port = 2000;
server.sin_addr.s_addr = inet_addr("127.0.0.1");
bind(s, (struct sockaddr*)&server, sizeof server);
listen(s, 1);
n = sizeof client;
```

```c
sock = accept(s, (struct sockaddr*)&client, &n);
recv(s, a_534, sizeof(a_534), 0);
send(s,a_534,sizeof(a_534),0);
close(sock);
close(s);
}
```

```c
#include <arpa/inet.h>
#include <netinet/in.h>
#include <stdio.h>
#include <string.h>
#include <sys/socket.h>
#include<stdlib.h>
#include<unistd.h>
#include <sys/stat.h>
#include <sys/types.h>
int main()
{
struct sockaddr_in client;
int l_534,s_534, flag_534;
char buffer_534[20];
s_534 = socket(AF_INET, SOCK_STREAM, 0);
client.sin_family = AF_INET;client.sin_port = 2000;
client.sin_addr.s_addr = inet_addr("127.0.0.1");
connect(s_534, (struct sockaddr*)&client, sizeof client);
scanf("%s_534",buffer_534);
send(s_534,buffer_534,sizeof(buffer_534),0);
recv(s_534,buffer_534,sizeof(buffer_534),0);
l_534=strlen(buffer_534);
for(int i=l_534-1;i>=0;i--)
printf("%c",buffer_534[i]);
close(s_534);
}
```