

1.a)TCP programs execution covering all functionaalties included in programs.

```
Terminal
sudharshan@sudharshanb190512cs:~/Desktop$ gcc tcpclient.c
sudharshan@sudharshanb190512cs:~/Desktop$ ./a.out 6000
[+]TCP server socket created.
Connected to the server.
Enter option
SendInventory
to server:SendInventory
apple=200 mango=200 banana=200 chikoo=200 papaya=200
Enter option
Fruits
to server:Fruits
from server:Enter the name of the fruit
enter name and count in seperate line
banana
50
to server:banana
to server:50
from server:successful decrement
Enter option
SendInventory
to server:SendInventory
apple=200 mango=200 banana=150 chikoo=200 papaya=200
Enter option
Fruits
to server:Fruits
from server:Enter the name of the fruit
enter name and count in seperate line
papaya
240

Activities Terminal
sudharshan@sudharshanb190512cs:~/Desktop$ gcc tcpserver.c
sudharshan@sudharshanb190512cs:~/Desktop$ ./a.out 6000
[+]TCP server socket created.
[+]Binded to the port number: 6000
Listening...
[+]Client connected.
from client:SendInventory
To client:apple=200 mango=200 banana=200 chikoo=200 papaya=200
from client:Fruits
To client:Enter the name of the fruit
from client:banana
from client:50
decremented count of banana fruit from 200 to 150
To client:successful decrement
from client:SendInventory
To client:apple=200 mango=200 banana=150 chikoo=200 papaya=200
from client:Fruits
To client:Enter the name of the fruit
from client:papaya
from client:240
To client:Not available
from client:SendInventory
To client:apple=200 mango=200 banana=150 chikoo=200 papaya=200
from client:Fruits
To client:Enter the name of the fruit
from client:dftyu
from client:50
To client:please enter valid fruit name
from client:exit

enter name and count in seperate line
papaya
240
to server:papaya
to server:240
from server:Not available
Enter option
SendInventory
to server:SendInventory
apple=200 mango=200 banana=150 chikoo=200 papaya=200
Enter option
Fruits
to server:Fruits
from server:Enter the name of the fruit
enter name and count in seperate line
dftyu
50
to server:dftyu
to server:50
from server:please enter valid fruit name
Enter option
ftyui
invalid option entered
Enter option
exit
to server:exit
Disconnected from the server.
sudharshan@sudharshanb190512cs:~/Desktop$

from client:dftyu
from client:50
To client:please enter valid fruit name
from client:exit
[+]Client disconnected.

Listening again...

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b)udp programs execution covering all functionaalties included in programs.

```
sudharshan@sudharshanb190512cs:~/Desktop$ gcc udpclient.c
sudharshan@sudharshanb190512cs:~/Desktop$ ./a.out 7000
[+]TCP server socket created.
Enter option
SendInventory
to server:SendInventory
apple=200 mango=200 banana=200 chikoo=200 papaya=200
Enter option
Fruits
to server:Fruits
from server:Enter the name of the fruit
enter name and count in seperate line
apple
30
to server:apple
to server:30
from server:successful decrement
Enter option
SendInventory
to server:SendInventory
apple=170 mango=200 banana=200 chikoo=200 papaya=200
Enter option
Fruits
to server:Fruits
from server:Enter the name of the fruit
enter name and count in seperate line
apple
180
```

```
sudharshan@sudharshanb190512cs:~/Desktop$ gcc udpserver.c
sudharshan@sudharshanb190512cs:~/Desktop$ ./a.out 7000
[+]TCP server socket created.
[+]Binded to the port number: 7000
waiting to receive msg from any client
from client:SendInventory
To client:apple=200 mango=200 banana=200 chikoo=200 papaya=200
waiting to receive msg from any client
from client:Fruits
To client:Enter the name of the fruit
from client:apple
from client:30
decremented count of apple fruit from 200 to 170
To client:successful decrement
waiting to receive msg from any client
from client:SendInventory
To client:apple=170 mango=200 banana=200 chikoo=200 papaya=200
waiting to receive msg from any client
from client:Fruits
To client:Enter the name of the fruit
from client:apple
from client:180
To client:Not available
waiting to receive msg from any client
from client:Fruits
To client:Enter the name of the fruit
from client:apbtte
from client:50
```

```
enter name and count in seperate line
apple
180
to server:apple
to server:180
from server:Not available
Enter option
Fruits
to server:Fruits
from server:Enter the name of the fruit
enter name and count in seperate line
apbtbte
50
to server:apbtbte
to server:50
from server:please enter valid fruit name
Enter option
betb
invalid option entered
Enter option
exit
client process terminated after closing socket created
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```

from client:fruits
To client:Enter the name of the fruit
from client:apbtbe
from client:50
To client:please enter valid fruit name
waiting to receive msg from any client

```