

TestCase 1: Client sends the request with different mobile numbers. The server validates it with database and check if it should be granted access or not paid or does not exist

Server Logs: Server receives requests packets with mode_error = 0 which means that server will work properly and always responds with ack or not grant access responses.

```
ing_projects/cn_project_2_Simran$ ./server.out 9999 0
Input parameter, mode_error : 0
```

```
Request Packet is:
Start Packet Id: 0xffff
Client Id: 0x1
Accessss permission: 0xffff8
Segment Idx: 0x0
Packet Length: 0xc
Technology: 0x4
Source Subscriber Number: 4085491198
End Packet Id: 0xffff
```

```
Request Packet is:
Start Packet Id: 0xffff
Client Id: 0x1
Accessss permission: 0xffff8
Segment Idx: 0x1
Packet Length: 0xc
Technology: 0x3
Source Subscriber Number: 4087771190
End Packet Id: 0xffff
```

```
Request Packet is:
Start Packet Id: 0xffff
Client Id: 0x1
Accessss permission: 0xffff8
Segment Idx: 0x2
Packet Length: 0xc
Technology: 0x2
Source Subscriber Number: 4086808821
End Packet Id: 0xffff
```

```
Request Packet is:
Start Packet Id: 0xffff
Client Id: 0x1
Accessss permission: 0xffff8
Segment Idx: 0x3
Packet Length: 0xc
Technology: 0x5
Source Subscriber Number: 4084058811
End Packet Id: 0xffff
```

```
Request Packet is:
```

```
Request Packet is:  
Start Packet Id: 0xffff  
Client Id: 0x1  
Accesss permission: 0xffff8  
Segment Idx: 0x4  
Packet Length: 0xc  
Technology: 0x4  
Source Subscriber Number: 4085546801  
End Packet Id: 0xffff
```

```
Request Packet is:  
Start Packet Id: 0xffff  
Client Id: 0x1  
Accesss permission: 0xffff8  
Segment Idx: 0x5  
Packet Length: 0xc  
Technology: 0x1  
Source Subscriber Number: 4082193289  
End Packet Id: 0xffff
```



Client Logs: Client receiving grant access or not paid or does not exist.

● mming_projects/cn_project_2_Simran\$./client.out localhost 9999

This number is not paid

Response Packet is:

Start Packet Id: 0xffff

Client Id: 0x1

Accesss permission: 0xffff9

Segment Idx: 0x0

Packet Length: 0xc

Technology: 0x4

Source Subscriber Number: 4085491198

End Packet Id: 0xffff

This number is granted access

Response Packet is:

Start Packet Id: 0xffff

Client Id: 0x1

Accesss permission: 0xffffb

Segment Idx: 0x1

Packet Length: 0xc

Technology: 0x3

Source Subscriber Number: 4087771190

End Packet Id: 0xffff

This number is granted access

Response Packet is:

Start Packet Id: 0xffff

Client Id: 0x1

Accesss permission: 0xffffb

Segment Idx: 0x2

Packet Length: 0xc

Technology: 0x2

Source Subscriber Number: 4086808821

End Packet Id: 0xffff

This number is granted access

Response Packet is:

Start Packet Id: 0xffff

Client Id: 0x1

Accesss permission: 0xffffb

Segment Idx: 0x3

Packet Length: 0xc

Technology: 0x5

Source Subscriber Number: 4084058811

End Packet Id: 0xffff

```
This number does not exist
Response Packet is:
Start Packet Id: 0xffff
Client Id: 0x1
Accesss permission: 0xffffa
Segment Idx: 0x4
Packet Length: 0xc
Technology: 0x4
Source Subscriber Number: 4085546801
End Packet Id: 0xffff
```

```
This number does not exist
Response Packet is:
Start Packet Id: 0xffff
Client Id: 0x1
Accesss permission: 0xffffa
Segment Idx: 0x5
Packet Length: 0xc
Technology: 0x1
Source Subscriber Number: 4082193289
End Packet Id: 0xffff
```

```
sdhawan@DESKTOP-5G2787P:/mnt/d/simrdhaw/quarter_2/computerNetworks/progra
```

Testcase 2:

Server running with mode_error =1 , where the server will not send a response packet for messages received. So the client will keep on resending those packets 3 times and will exit if it does not receive. Timeout is set to 3 seconds as recommended.

Server logs: Showing packet is received 4 times as 3 times it is resent because server has not sent acknowledgement.

○ sdhawan@DESKTOP-5G2787P:~/cn_project_2\$./server.out 9999 1

Input parameter, mode_error : 1

Request Packet is:

Start Packet Id: 0xffff

Client Id: 0x1

Accesss permission: 0xffff8

Segment Idx: 0x0

Packet Length: 0xc

Technology: 0x4

Source Subscriber Number: 4085491198

End Packet Id: 0xffff

Request Packet is:

Start Packet Id: 0xffff

Client Id: 0x1

Accesss permission: 0xffff8

Segment Idx: 0x0

Packet Length: 0xc

Technology: 0x4

Source Subscriber Number: 4085491198

End Packet Id: 0xffff

Request Packet is:

Start Packet Id: 0xffff

Client Id: 0x1

Accesss permission: 0xffff8

Segment Idx: 0x0

Packet Length: 0xc

Technology: 0x4

Source Subscriber Number: 4085491198

End Packet Id: 0xffff

Request Packet is:

Start Packet Id: 0xffff

Client Id: 0x1

Accesss permission: 0xffff8

Segment Idx: 0x0

Packet Length: 0xc

Technology: 0x4

Source Subscriber Number: 4085491198

End Packet Id: 0xffff

Client logs: Showing ack is not received so the packet is resend for 3 times. So it exits after some time.

```
● sdhawan@DESKTOP-5G2787P:~/cn_project_2$ ./client.out localhost 9999
Still waiting , resending again 1 time
Still waiting , resending again 2 time
Still waiting , resending again 3 time
Server does not respond
sdhawan@DESKTOP-5G2787P:~/cn_project_2$
```