

# USER-MANUAL

## Requirement -

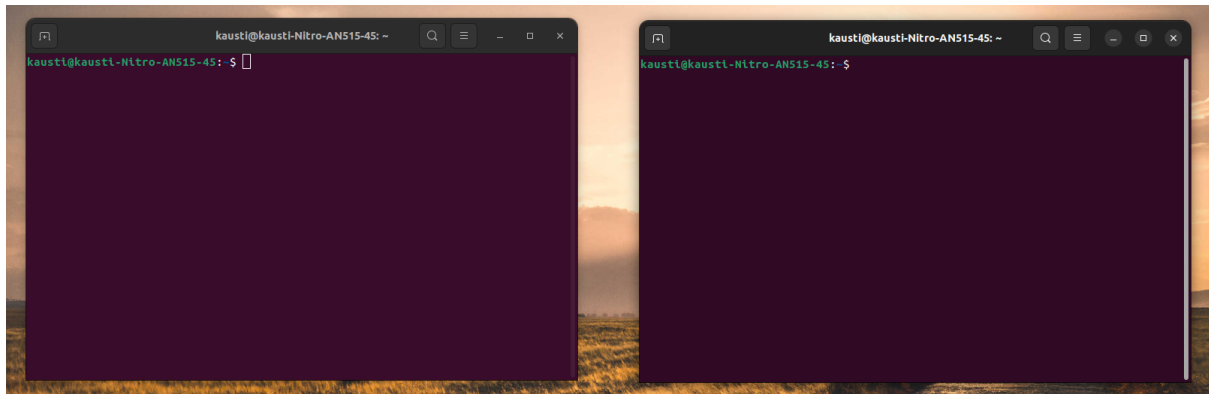
The Operating System should be Linux

## Assumption -

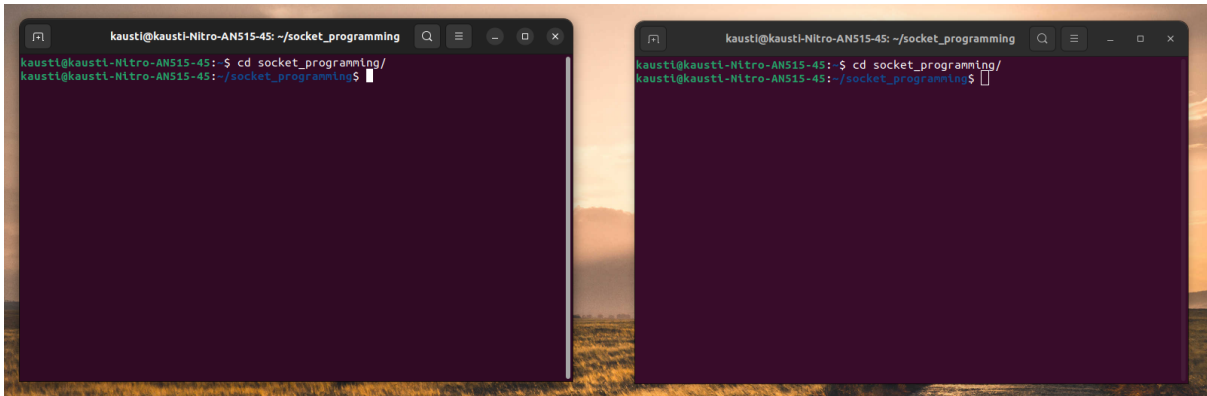
- 1) Server is Sender.
- 2) Client is Receiver.

## Steps -

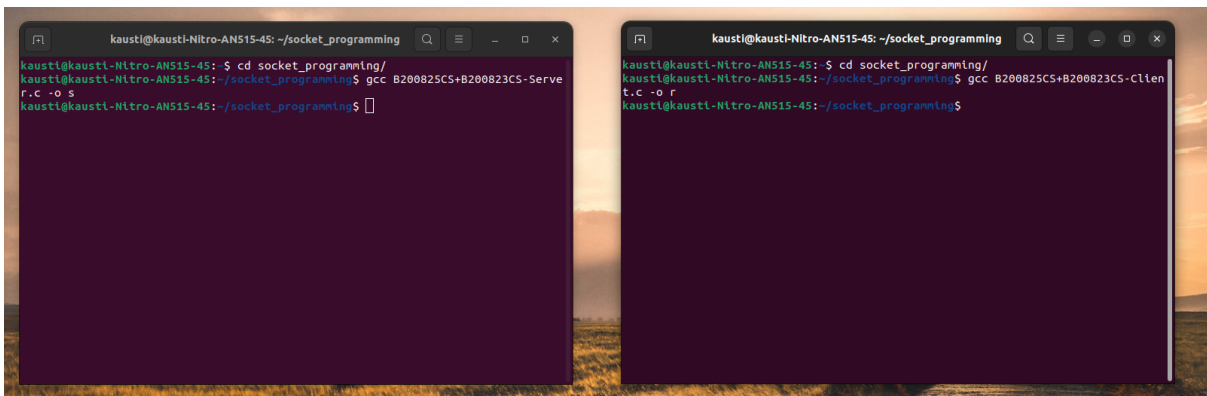
- 1) Open the Linux Terminal twice. You should be getting two separate terminal windows.



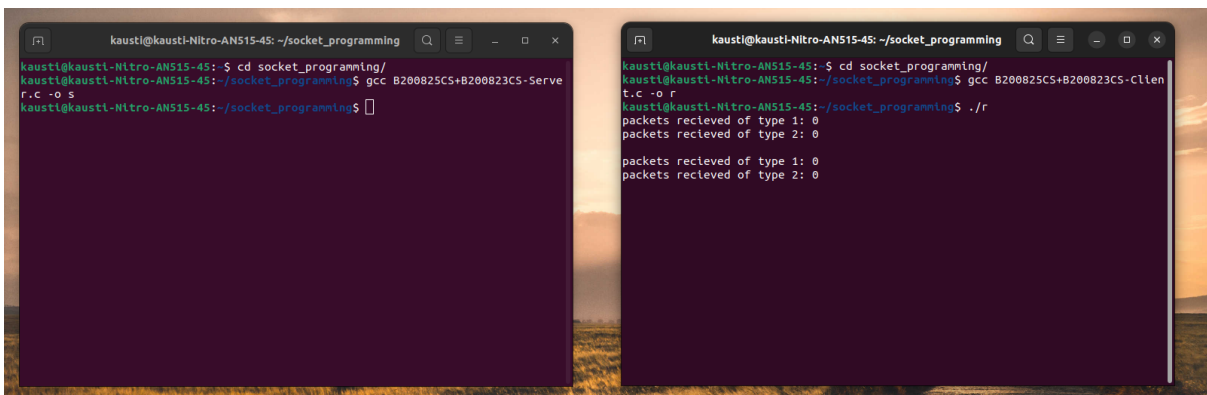
- 2) Go to the directory in which the program files are stored by typing the command **cd directory\_name/** in both the terminals.



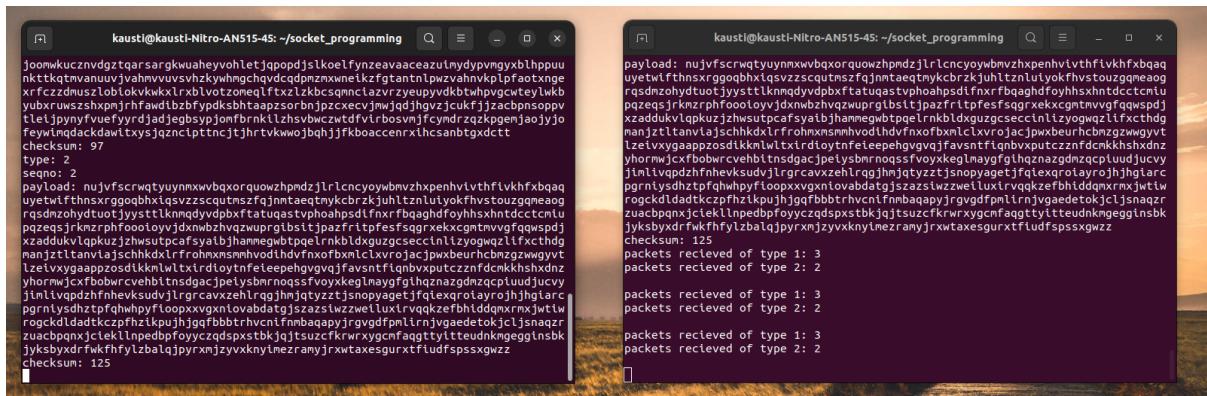
3) Compile the Server and the Client code file by typing the command **gcc B200825CS+B200823CS-Server.c -o s** and **gcc B200825CS+B200823CS-Client.c -o r** in the respective terminals.



4) First start running the command **./r** in the client terminal.



5) Then run the command **./s** in the server terminal.



```
kausti@kausti-Nitro-ANS15-45: ~/socket_programming
joomkucznvdgtqarsargkwaehyvoletjapodpjslkoelfynzeavaaceazuinydyvmgyxblhppuu
nkttkqnmvanuuvjvahnvvuvshzkywhngchvdqdpnzxnwneikzfgtntnlpwzavhnkplpfaotxngp
xrfczdmuszloblokvwxlrxblvtomeqlftxzlkbcsgmnciazrvzeyuypvdkbtwhpvcwtelwkb
yubxruxszshxpnjrhfawdbzbzfydpksbhtaapsorbnjpcxcexjmwjgdjhgvyzjckfjjzacbpnsoppv
tleljpnynfvuefyfyrddjadjegbsypjonfbrnklzshvbwczwdfvrbosvnjfcyndrzqzkgpenjaojyo
feylmgackdawiixysjqzncpttncjtjhrvtkwwojbqbjjfkboaccenxthcsanbtgxdctt
checksum: 97
type: 2
seqno: 2
payload: nujvfscrwtuyunnxwvbxorquowzhpndzjrlcncyoywbvzxpenhvlvthflvkhfbqaa
uyetwifthnsxrggoqbhxiqsvzscqutnszfqnntaeqtnykcbrzkjuhltnluivokfhvstouzqgneaog
rqsndzohydtuotjyysttlnnqdyvdpbxfatugastvphoahpsdfnxfrbaghdfoyhhsxhntdctctnu
pqzeqsjknzrphfoooloyvjdxbwzhvqzwuprglbtstjpazfritpfesqgrkexxcgntvvgfqwspdj
xzaddukvlqpkuzjzhwsutpcafsyatbjhanegwbtpgelrnkblxdguzgcseccnlizyogwzlfxtchdg
nanjzltanvlajscchikdxlrfrohwnsmhvdthdvnxfbmxlclxvrojacjpwbeurhcbnzzgwgyvt
lzeivxygaappzodikkmlwtlxirdioytnfeteephegvvgvjfavsntfiqnbvpxtczznfcdmkkshxdnz
yhornwjcfbobbwrcvehbntsdgacjpeylsbmnoqssfvoyxkeglmayfglhzqznazgdnzqcpiludjucvy
jnlivqpdzhfnheksudvjlrgrcavxzehlrgqjhnjgtzyztjzsnopyagetjfqlexqrolayrojhjglarc
pgrnlysdhztprfwhhpyfloopxxvgnlovabdatgjszazslwzweiluxlrqqkzefbhiddqmxrxjwltw
rogckldadtkczpfhztlkpujhjgqfbbtrhvcnlfmbaqaapyjrgvgdfpnllrnjvgaedetokjcljsnaqr
zuacbpqnxjcteklnpedbpfoycqzqspstbktjtsuzcfkrwxygcfaagtttittednkmgegglnsbk
jyksbyxdrfwkfhfylzbalqjpyrxnjzyvxnlyneznanyjrxwtaxesguxrtfudfspssxgwzz
checksum: 125

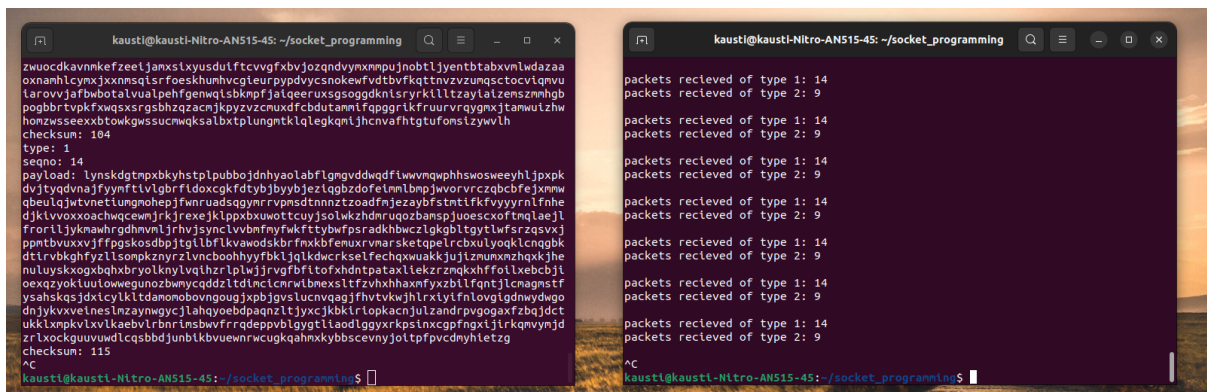
kausti@kausti-Nitro-ANS15-45: ~/socket_programming
payload: nujvfscrwtuyunnxwvbxorquowzhpndzjrlcncyoywbvzxpenhvlvthflvkhfbqaa
uyetwifthnsxrggoqbhxiqsvzscqutnszfqnntaeqtnykcbrzkjuhltnluivokfhvstouzqgneaog
rqsndzohydtuotjyysttlnnqdyvdpbxfatugastvphoahpsdfnxfrbaghdfoyhhsxhntdctctnu
pqzeqsjknzrphfoooloyvjdxbwzhvqzwuprglbtstjpazfritpfesqgrkexxcgntvvgfqwspdj
xzaddukvlqpkuzjzhwsutpcafsyatbjhanegwbtpgelrnkblxdguzgcseccnlizyogwzlfxtchdg
nanjzltanvlajscchikdxlrfrohwnsmhvdthdvnxfbmxlclxvrojacjpwbeurhcbnzzgwgyvt
lzeivxygaappzodikkmlwtlxirdioytnfeteephegvvgvjfavsntfiqnbvpxtczznfcdmkkshxdnz
yhornwjcfbobbwrcvehbntsdgacjpeylsbmnoqssfvoyxkeglmayfglhzqznazgdnzqcpiludjucvy
jnlivqpdzhfnheksudvjlrgrcavxzehlrgqjhnjgtzyztjzsnopyagetjfqlexqrolayrojhjglarc
pgrnlysdhztprfwhhpyfloopxxvgnlovabdatgjszazslwzweiluxlrqqkzefbhiddqmxrxjwltw
rogckldadtkczpfhztlkpujhjgqfbbtrhvcnlfmbaqaapyjrgvgdfpnllrnjvgaedetokjcljsnaqr
zuacbpqnxjcteklnpedbpfoycqzqspstbktjtsuzcfkrwxygcfaagtttittednkmgegglnsbk
jyksbyxdrfwkfhfylzbalqjpyrxnjzyvxnlyneznanyjrxwtaxesguxrtfudfspssxgwzz
checksum: 125
packets recieved of type 1: 3
packets recieved of type 2: 2

packets recieved of type 1: 3
packets recieved of type 2: 2

packets recieved of type 1: 3
packets recieved of type 2: 2
```

You will be getting the output as shown in the terminal displaying payload, checksum, type, acknowledgement etc.

6) If we want to cross check or put a stop to the communication between the client and server, press **Ctrl+C** on the keyboard to stop at both the terminals.



```
kausti@kausti-Nitro-ANS15-45: ~/socket_programming
zwoocdkavnnkefzeeljamxsixysudlftcvvgfxbvjzqndvynxmpujnobljyentbtaxnvlwdaaa
oxnanhclmxjxxnnsqisrfoeskhunhvgleuppydpvycsnokewfvdtdbfkqtnvzvumsgctocvignvu
iarovvjafwbotalualpehfgengqtsbkmpfjalqeruxsgsoggdntsyrykllltzaylatzemszmhbg
pogbbrtvpkfwxqsgsbzhaqacnkpzyvzcnuxdfcbutannlfpqggtrkfruurvraqgxnjtanzmwtzhw
honzssseaxbtowkwssucmqksalbxtplungntklqlegkqntjhcnavhtgtufonsztzywlh
checksum: 104
type: 1
seqno: 14
payload: lynskdgtnpkbyhstplubpojdnhyaolabflngvddqdfllwvwnqphhsosweeyhljpxpk
dyjtyqdvnafrfynftvlbgrfdoxgcgfdtybjbybjezlgqbdofelnlbnpjvovrczqbcbfexmmw
qbeulqjwvnetlungnohepfwruadsgqymrpmsdndmngtzoosdfjezaybftxtetfkyvyyrnlfnie
djkltvioxachqacwewjkrjrexejkjppxbxuwotctuyjsolkzhdnruqozbanspjuoesxcoftnqlaejl
forltljyknawhrghdhnvnljrhvjsynclvbnmfyrfkfttybwfpradkhhwczlqkbltgytlwfsrzsqvjl
ppmtbuvuxvjffpgskosdbpjtgltblflkavawdsbkfrmxkfemuxrvnarsketpelrcbuxloqlcnagbk
dtrirvbkghfyzllsompknyrzlvncboohyyfblkljqlkdwcrkseltechqxuakkjujznmunxzhqkqjhe
nulusykgxbqhbxyrkyolkylvqlhrlplwjjrvgrfbftofxhndtpataxlllekzrzqkxhffolxebcbjl
oexqzyokluulowegunozbwnyqddtdtdncnrcwrbnxsllfzvhhxhaxnfyxzbllfqntjlcagnstf
ysahksqjdxlctclldamonobovogoujxobjguslucnvaqagjfhvtskvlhrlxytfinlovgldnedydwo
dnjykvxveineslnazwnmycjlahygoebdapaqnljtjxycjkbkrltopkacnjulzandpvgogaxfbqjdet
ukklmpkvlxvlkaebvlrbnrinsbwfrrqdeppvblgygtllaodlgyxrkpsinxcpfngxiijrkqnvynjd
zrlxockguuvuudlcqsbbdjunbklbvuewnrcugqahmxybbscevnyjoitpfpvcndnyhetzq
checksum: 115
^C
kausti@kausti-Nitro-ANS15-45: ~/socket_programming$

kausti@kausti-Nitro-ANS15-45: ~/socket_programming
packets recieved of type 1: 14
packets recieved of type 2: 9

packets recieved of type 1: 14
packets recieved of type 2: 9

packets recieved of type 1: 14
packets recieved of type 2: 9

packets recieved of type 1: 14
packets recieved of type 2: 9

packets recieved of type 1: 14
packets recieved of type 2: 9

packets recieved of type 1: 14
packets recieved of type 2: 9

packets recieved of type 1: 14
packets recieved of type 2: 9

packets recieved of type 1: 14
packets recieved of type 2: 9

^C
kausti@kausti-Nitro-ANS15-45: ~/socket_programming$
```