

Testing process:

1. Build the program (go build src/main.go)
2. Run the program (go run src/main.go)
3. Enter IP address for first peer
4. Enter port of first peer
Please enter IP to connect to:
127.0.0.1
Please enter port to connect to:
7899
Listening on address 127.0.0.1:58444
5. If a connection to the desired port is not established, a random port is selected, and the address of the peer is displayed. This address can be used to connect to a peer or make a transaction from/to it.
6. Run the program in a second terminal
7. Use the address from step 4 to connect to first peer.

```
Please enter IP to connect to:
127.0.0.1
Please enter port to connect to:
58444
Listening on address 127.0.0.1:58449
```

8. The public key of each peer is displayed when peer is initialized, and it can be used to test the application manually.

```
[127.0.0.1:58444], publicKey={"N":218677124621896258997284218278756081291430862879347326857127668113567728908102
5199337355478275221119672592628827916013283134194054073541818956740898416340323021051164360481939585117306607884
9204904735511575761071870813380051854893842471919252832443071357292078771877670694577736064662929449890574463495
6506305994328488488516556410525004024512581507946246798982109023119337833246147351380785069170698858420600323060
0401581750677059835826714821288365725159007059283085915738726712482247802332271077626121614920772417549781858769
7120606186982861071311698503727680231815105509104050319357824406415683905795961699090427623,"E_or_d":3}

[127.0.0.1:58449], publicKey={"N":197796504308076854210341016102316900722395871025496343956414356883696215779756
1502205953973816494008386637558471838630993980006221166522474223527075507254770329877243700430401009358337525471
5834218095560463170178943744646877677196332809653255842699494353118298330966732230927798696776047369066096819164
1577120348115163168299748804918463826410852053341276540775472099379678081889997098903746980171675036229300565963
1437791223175824006704509688167093488017244327898433481904048170624922620005183470296748774212222100565931328354
7319429485542780262758354327130772803991224820203166579238477734619565696496750670247549509,"E_or_d":3}
```

9. Make a transaction from the first to the second peer by inputting the amount, the address of the sender, and the address of the receiver of the transaction.

```
Amount to send:
200
Sender's address:
127.0.0.1:58449
Receiver's address:
127.0.0.1:58444
```

10. If the signature of the transaction is valid (and the amount is non-negative), the transaction should be executed and the result - printed. Then you should be able to observe that the correct accounts are updated by comparing the peer addresses of sender and receiver with the peer addresses corresponding to the public keys from step 7 in the Account name.

Account name: {"N":197796504308076854210341016102316900722395871025496343956414356883696215779756150220595397381
6494008386637558471838630993980006221166522474223527075507254770329877243700430401009358337525471583421809556046
3170178943744646877677196332809653255842699494353118298330966732230927798696776047369066096819164157712034811516
3168299748804918463826410852053341276540775472099379678081889997098903746980171675036229300565963143779122317582
4006704509688167093488017244327898433481904048170624922620005183470296748774212222100565931328354731942948554278
0262758354327130772803991224820203166579238477734619565696496750670247549509,"E_or_d":3} amount: -200
Account name: {"N":218677124621896258997284218278756081291430862879347326857127668113567728908102519933735547827
5221119672592628827916013283134194054073541818956740898416340323021051164360481939585117306607884920490473551157
5761071870813380051854893842471919252832443071357292078771877670694577736064662929449890574463495650630599432848
8488516556410525004024512581507946246798982109023119337833246147351380785069170698858420600323060040158175067705
9835826714821288365725159007059283085915738726712482247802332271077626121614920772417549781858769712060618698286
1071311698503727680231815105509104050319357824406415683905795961699090427623,"E_or_d":3} amount: 200