

After building successfully the project with "cargo build --release" (Chapter 6)

```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template
Compiling sc-network v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-transaction-pool v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sp-consensus-aura v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sp-transaction-storage-proof v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-chain-spec v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-informant v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-rpc-api v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-rpc-spec-v2 v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-rpc v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling frame-system v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-network-transactions v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-timestamp v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-transaction-payment v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-keystore v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-transaction-payment-rpc-runtime-api v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-session v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-session-rpc v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling frame-try-runtime v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling frame-system-rpc-runtime-api v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sp-keyring v24.0.0 (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-grandpa v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling frame-executive v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-aura v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-template v4.0.0-dev (/home/sami/Desktop/patika-dev-polkadot/substrate-node-template/template)
Compiling pallet-balances v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling frame-benchmarking v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-sudo v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-network-gossip v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-consensus-grandpa v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling substrate-frame-rpc-system v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-consensus-aura v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-transaction-payment-rpc v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-offchain v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-basic-authorship v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-statement-store v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling wasm-opt v0.112.0
Compiling substrate-wasm-builder v5.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling node-template-runtime v4.0.0-dev (/home/sami/Desktop/patika-dev-polkadot/substrate-node-template/runtime)
Compiling rocksdb v0.21.0
Compiling kvdb-rocksdb v0.19.0
Compiling sc-client-db v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-service v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-cli v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Finished release [optimized] target(s) in 26m 02s
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$
```

And the node works as expected

```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template
Compiling sc-consensus-aura v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling pallet-transaction-payment-rpc v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-offchain v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-basic-authorship v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-statement-store v4.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling wasm-opt v0.112.0
Compiling substrate-wasm-builder v5.0.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling node-template-runtime v4.0.0-dev (/home/sami/Desktop/patika-dev-polkadot/substrate-node-template/runtime)
Compiling rocksdb v0.21.0
Compiling kvdb-rocksdb v0.19.0
Compiling sc-client-db v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-service v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Compiling sc-cli v0.10.0-dev (https://github.com/paritytech/substrate.git?branch=polkadot-v1.0.0#948fbdf)
Finished release [optimized] target(s) in 26m 02s
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template --dev
2023-08-23 01:53:04 Substrate Node
2023-08-23 01:53:04 🚀 Version 4.0.0-dev-f621c2a4c0d
2023-08-23 01:53:04 By Substrate DevHub <https://github.com/substrate-developer-hub>, 2017-2023
2023-08-23 01:53:04 📜 Chain specification: Development
2023-08-23 01:53:04 Node name: glorious-band-5334
2023-08-23 01:53:04 🎖 Role: AUTHORITY
2023-08-23 01:53:04 Database: RocksDB at /tmp/substrateDmQv0Y/chains/dev/db/full
2023-08-23 01:53:05 🚀 Initializing Genesis block/state (state: 0xc719..e2cf, header-hash: 0xbcd2..70f2)
2023-08-23 01:53:05 🚀 Loading GRANDPA authority set from genesis on what appears to be first startup.
2023-08-23 01:53:05 Using default protocol ID "sup" because none is configured in the chain specs
2023-08-23 01:53:05 🚀 Local node identity is: 12D3KooWGjaeiGuoms7Kunhz5zGT3gDm6jLuiUSRFtGb7CKM7A
2023-08-23 01:53:05 📜 Operating system: linux
2023-08-23 01:53:05 🚀 CPU architecture: x86_64
2023-08-23 01:53:05 📜 Target environment: gnu
2023-08-23 01:53:05 🚀 CPU: AMD Ryzen 7 5700G with Radeon Graphics
2023-08-23 01:53:05 🚀 CPU cores: 4
2023-08-23 01:53:05 🚀 Memory: 3907MB
2023-08-23 01:53:05 🚀 Kernel: 6.2.0-26-generic
2023-08-23 01:53:05 📜 Linux distribution: Ubuntu 22.04.3 LTS
2023-08-23 01:53:05 🚀 Virtual machine: yes
2023-08-23 01:53:05 🚀 Highest known block at #0
2023-08-23 01:53:05 Running JSON-RPC server: addr=127.0.0.1:9944, allowed origins=["*"]
2023-08-23 01:53:05 🚀 Prometheus exporter started at 127.0.0.1:9615
2023-08-23 01:53:06 🚀 Starting consensus session on top of parent 0xbcd2717e19e4d8c9211bcd2b17dac57e8be527585dacce3dbb3fcfaf9370f2
2023-08-23 01:53:06 🚀 Prepared block for proposing at 1 (0 ms) [hash: 0x49bca42e7d30b867525747ecd16485ea19d82326753debfaf7875f3f305a9b6a6; parent_hash: 0xbcd2...0f2; extrinsics (1): [0xe41a..2b3a]
2023-08-23 01:53:06 🚀 Pre-sealed block for proposal at 1. Hash now 0x130567dc12743e1854d29af947a676dd298aa6438d19c2ce769b56ac04a5695, previously 0x49bca42e7d30b867525747ecd16485ea19d82326753debfaf7875f3f305a9b6a6.
2023-08-23 01:53:06 🚀 Imported #1 (0x1305..5695)
```

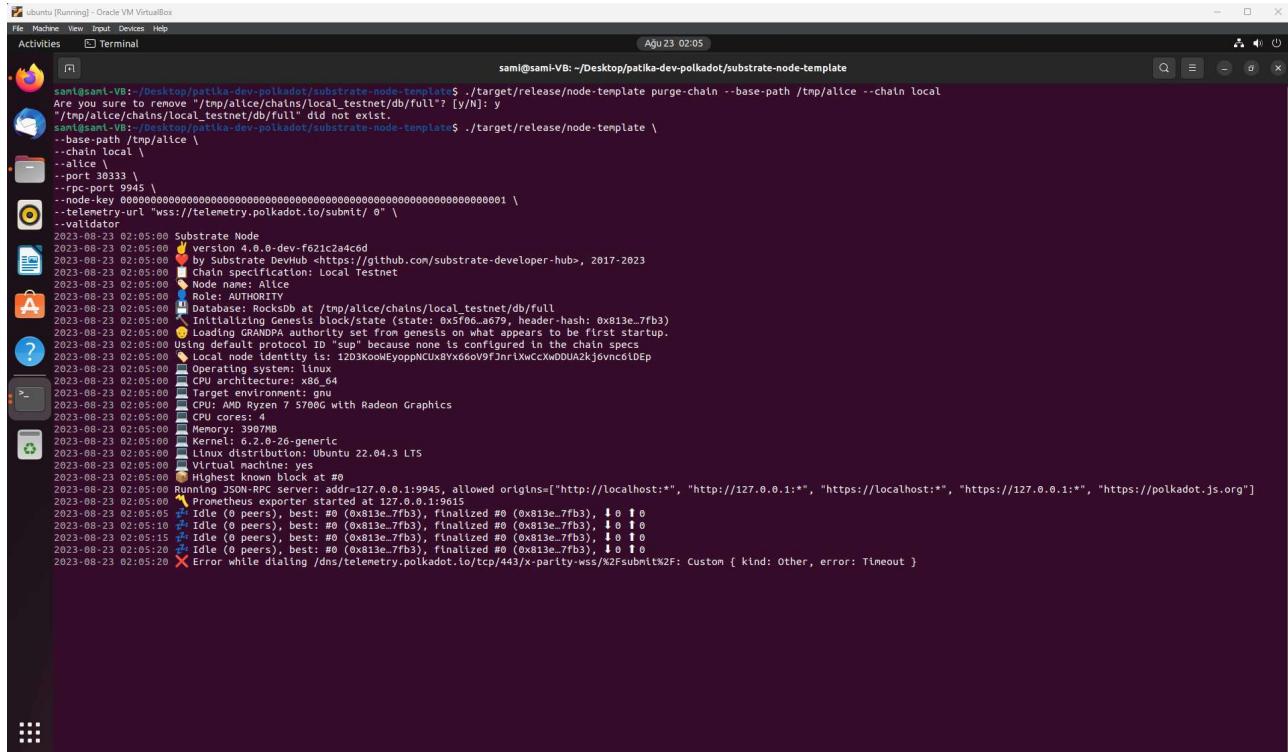
After running front-end of the project and sending some amount of unit money.

The screenshot shows a Firefox browser window with the URL `localhost:8000/substrate-front-end-template`. The page displays the following information:

- Substrate Node:** Development, ws://127.0.0.1:9944, v4.0.0-dev-f621c2a4c6d
- Metadata:** v14, Show Metadata button
- ALICE Account:** Address: 5GrwvaEF5zXb26Fz9rcQpDW557CtERHpNehXCPcNoHGKutQY, Balance: 1,152,920,504,297,866,830
- CURRENT BLOCK:** Number 21, Height 5
- FINALIZED BLOCK:** Number 19, Height 3
- Balances Table:**

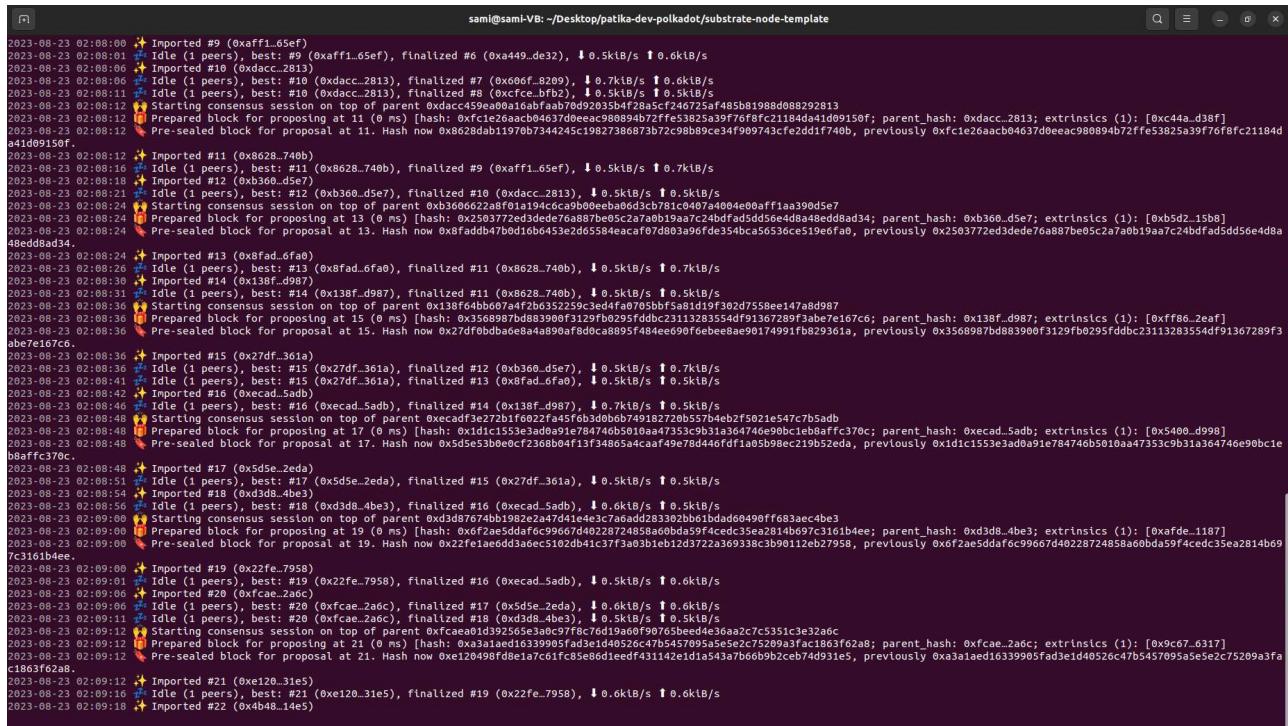
Name	Address	Balance
alice	5GrwvaEF5zXb26Fz9rcQpDW557CtERHpNehXCPcNoHGKutQY	1,152,920,504,297,866,830
alice_stash	5GNJqTPyNqANBkUVMN1LPPrXnFouWKh2vNSmmEoLctxiZY	1,152,921,504,606,846,976
bob	5FHneW46xGXgs5mUiveU4sbTyGBzmstUspZC92UhjJM694ty	1,152,921,504,606,846,976
bob_stash	5HPG9w8EBLe5XCrbczwq5TSXvedjrBGcwqK1lQ7qUsSWFc	1,152,921,504,606,846,976
charlie	5FLSlgC9HGRKVViB9FIEo4Y3koPsNmBmLJbpXg2mJ1hXc559Y	0
dave	5DAAnrj7VHTzn2AWBemMuyBwZW66NFjdyVXUeYum3PTXFy	1,000,000,000,000
eve	5HGjWAeFDIFCWPsjFQdVV2MsV2XtMktvgocEZcCj68kUMaw	0
ferdie	5CIPPsXPECbkjWCa6MnjNokrgYjMqmKdv2rSnekmsK2DjL	0
- Transfer Section:** Shows 1 Unit = 1000000000000 and a note: Transfer more than the existential amount for account with 0 balance.
- Upgrade Runtime Section:** Wasm File input field, Browse... button, and a note: No file selected.
- GitHub Link:** Fork me on GitHub

Chapter 7 – Starting the node



```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template
sam@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template purge-chain --base-path /tmp/alice --chain local
Are you sure you want to remove "/tmp/alice/chains/local_testnet/db/full"? [y/N] y
sam@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template \
--base-path /tmp/alice \
--chain local \
--port 30333 \
--rpc-port 9945 \
--telemetry-url "wss://telemetry.polkadot.io/submit/0" \
--validator
2023-08-23 02:05:00 Substrate Node
2023-08-23 02:05:00 Version 4.0.0-dev-f621c2a4cd
2023-08-23 02:05:00 🔥 by Substrate DevHub <https://github.com/substrate-developer-hub>, 2017-2023
2023-08-23 02:05:00 Chain specification: Local Testnet
2023-08-23 02:05:00 Local chain identifier: alice
2023-08-23 02:05:00 Role: AUTHORITY
2023-08-23 02:05:00 Database: Rocksdb at /tmp/alice/chains/local_testnet/db/full
2023-08-23 02:05:00 Initializing Genesis block/state (state: 0x5f06_a679, header-hash: 0x813e_7fb3)
2023-08-23 02:05:00 Loading GRANDPA authority set from genesis on what appears to be first startup.
2023-08-23 02:05:00 Using default protocol ID "sup" because none is configured in the chain specs
2023-08-23 02:05:00 Local chain identifier: 1203KookEyoppNCUx8Yx660v9fJnrIxCcXwDDUA2kj6vnc6lDEp
2023-08-23 02:05:00 Creating system libraries
2023-08-23 02:05:00 CPU architecture: x86_64
2023-08-23 02:05:00 Target environment: gnu
2023-08-23 02:05:00 CPU: AMD Ryzen 7 5700G with Radeon Graphics
2023-08-23 02:05:00 CPU cores: 4
2023-08-23 02:05:00 Memory: 3907MB
2023-08-23 02:05:00 Kernel: 6.2.6-26-generic
2023-08-23 02:05:00 OS: Linux sami-VB 6.2.6-26-generic #1-MANJARISUB-1-Ubuntu 22.04.3 LTS
2023-08-23 02:05:00 Virtual machine: yes
2023-08-23 02:05:00 🌐 Highest known block at #
2023-08-23 02:05:00 Running JSON-RPC server: addr=127.0.0.1:9945, allowed origins=["http://localhost:*", "http://127.0.0.1:", "https://localhost:", "https://127.0.0.1:", "https://polkadot.js.org"]
2023-08-23 02:05:00 Prometheus exporter started at 127.0.0.1:9615
2023-08-23 02:05:00 ⚡ Idle (0 peers), best: #0 (0x813e_7fb3), finalized #0 (0x813e_7fb3), 0 0 0
2023-08-23 02:05:10 ⚡ Idle (0 peers), best: #0 (0x813e_7fb3), finalized #0 (0x813e_7fb3), 0 0 0
2023-08-23 02:05:15 ⚡ Idle (0 peers), best: #0 (0x813e_7fb3), finalized #0 (0x813e_7fb3), 0 0 0
2023-08-23 02:05:20 ⚡ Idle (0 peers), best: #0 (0x813e_7fb3), finalized #0 (0x813e_7fb3), 0 0 0
2023-08-23 02:05:20 ✗ Error while dialing /dns/telemetry.polkadot.io/tcp/443/x-parity-wss/%2fsubmitxt2F: Custom { kind: Other, error: Timeout }
```

After starting other node we can see the peering is done (Node 1)



```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template
2023-08-23 02:08:00 ⚡ Imported #9 (0xaaff1_65ef)
2023-08-23 02:08:01 ⚡ Idle (1 peers), best: #9 (0xaaff1_65ef), finalized #6 (0xa499_de32), 0.5kB/s 0.6kB/s
2023-08-23 02:08:01 ⚡ Imported #10 (0xdacc_2813)
2023-08-23 02:08:06 ⚡ Idle (1 peers), best: #10 (0xdacc_2813), finalized #7 (0x00ef_8289), 0.7kB/s 0.8kB/s
2023-08-23 02:08:06 ⚡ Idle (1 peers), best: #10 (0xdacc_2813), finalized #7 (0x00ef_8289), 0.7kB/s 0.8kB/s
2023-08-23 02:08:12 🚀 Starting consensus session on top of parent 0xae4cc59ea001abfaab70d92835bf4f28a5cf246f725af4985b91988d088292813
2023-08-23 02:08:12 🚀 Prepared block for proposing at 11 (0 ms) [hash: 0xfc1e26aacfd4637d8eeac98894b2fffe5325a39f76f8fc21184da41d09150f; parent_hash: 0xdacc_2813; extrinsics (1): [0xc44a_d38f]
2023-08-23 02:08:12 Pre-sealed block for proposal at 11. Hash now 0x8628db0119734425c19827386873b72c98b89ce34f909743cfef2dd1f740b, previously 0xfc1e26aacb04637d0eeac980894b72ffe53825a39f76f8fc21184d
a41d09150f.
2023-08-23 02:08:12 🚀 Imported #11 (0x8628_740b)
2023-08-23 02:08:12 🚀 Idle (1 peers), best: #11 (0x8628_740b), finalized #9 (0xaaff1_65ef), 0.5kB/s 0.7kB/s
2023-08-23 02:08:12 🚀 Imported #12 (0xb360_d5ef)
2023-08-23 02:08:12 🚀 Idle (1 peers), best: #12 (0xb360_d5ef), finalized #10 (0xdacc_2813), 0.5kB/s 0.5kB/s
2023-08-23 02:08:24 🚀 Starting consensus session on top of parent 0xb360d22abf0194cc9b00eeba0d03cb81c0407a4004e08aff1a390d5a7
2023-08-23 02:08:24 🚀 Prepared block for proposing at 13 (0 ms) [hash: 0x253077ed3dede76ab887be05247ab19aa7c4dbdfad5d56e4d8a48edd8ad34; parent_hash: 0xb360_d5e7; extrinsics (1): [0xb5d2_15b8]
2023-08-23 02:08:24 Pre-sealed block for proposal at 13. Hash now 0xfaffd047b0d1b0453e2d65584eacf07d08039d6e354bcab5633ce519e0fa0, previously 0x250377ed3dede76a087be05c287a0b19aa7c24bdfad5d56e4d8a
48eddf8ad34.
2023-08-23 02:08:24 🚀 Imported #13 (0x8fad_0f0a)
2023-08-23 02:08:26 🚀 Idle (1 peers), best: #13 (0x8fad_0f0a), finalized #11 (0x8628_740b), 0.5kB/s 0.7kB/s
2023-08-23 02:08:30 🚀 Imported #14 (0x138f_d987)
2023-08-23 02:08:31 🚀 Idle (1 peers), best: #14 (0x138f_d987), finalized #11 (0x8628_740b), 0.5kB/s 0.5kB/s
2023-08-23 02:08:36 🚀 Starting consensus session on top of parent 0x138f64b6b74f2b6352259c3ed4fa0765bbf5a1d19f302d7558ebe147ad8987
2023-08-23 02:08:36 🚀 Prepared block for proposing at 15 (0 ms) [hash: 0x35e898fb0883900f73129fb0295fddbc23113283554d91367289f3abeb7e167c0; parent_hash: 0x138f_d987; extrinsics (1): [0xff86_2eaf]
2023-08-23 02:08:36 🚀 Pre-sealed block for proposal at 15. Hash now 0x27dbbdabae0a890fa0ddca86954b94ec690f6bebea9e9174991f8293561a, previously 0x356898fb0d883900f3129fb0295fddbc23113283554d91367289f3
abe7e167c0.
2023-08-23 02:08:36 🚀 Imported #15 (0x27df_361a)
2023-08-23 02:08:36 🚀 Idle (1 peers), best: #15 (0x27df_361a), finalized #12 (0xb360_d5e7), 0.5kB/s 0.7kB/s
2023-08-23 02:08:41 🚀 Idle (1 peers), best: #15 (0x27df_361a), finalized #13 (0x8fad_0f0a), 0.5kB/s 0.5kB/s
2023-08-23 02:08:42 🚀 Imported #16 (0xecad_5adb)
2023-08-23 02:08:42 🚀 Idle (1 peers), best: #16 (0xecad_5adb), finalized #14 (0x138f_d987), 0.7kB/s 0.5kB/s
2023-08-23 02:08:42 🚀 Starting consensus session on top of parent 0xecad3e272b1f022f45f6b749182720557b4eb2f5021e547c7b5adb
2023-08-23 02:08:42 🚀 Prepared block for proposing at 17 (0 ms) [hash: 0xid1c1553e3ad0a91e847465b010aa47353c9b31a36474e9b0c1ebbaafc370c; parent_hash: 0xecad_5adb; extrinsics (1): [0x5400_d998]
2023-08-23 02:08:42 🚀 Pre-sealed block for proposal at 17. Hash now 0x5d5e3b00e0c2368b04f13f348655a4caf49e7bd446fd1a05b9e82c19b52eda, previously 0xid1c1553e3ad0a91e784746b5010aa47353c9b31a36474e9b0c1e
b8affc70c.
2023-08-23 02:08:48 🚀 Imported #17 (0x5dse_zeda)
2023-08-23 02:08:51 🚀 Idle (1 peers), best: #17 (0x5dse_zeda), finalized #15 (0x27df_361a), 0.5kB/s 0.5kB/s
2023-08-23 02:08:54 🚀 Imported #18 (0x2d8d_4be3)
2023-08-23 02:08:54 🚀 Idle (1 peers), best: #18 (0x2d8d_4be3), finalized #16 (0x5dse_zeda), 0.6kB/s 0.5kB/s
2023-08-23 02:09:00 🚀 Starting consensus session on top of parent 0xd3d87674b1982e447d1a43e37a0ad61bdad0490ff683aeca4be3
2023-08-23 02:09:00 🚀 Prepared block for proposing at 19 (0 ms) [hash: 0x6f2e5d5d0fc9967d40228724858a0bda59f4ced35e49a2814b67; parent_hash: 0xd3d8_4be3; extrinsics (1): [0xafde_1187]
2023-08-23 02:09:00 🚀 Pre-sealed block for proposal at 19. Hash now 0x2fe1eaaed3aee5102db41c37f3a93b1e12d3722a369338c3b90112e2b7958, previously 0x6f2eae5d5d0fc9967d40228724858a0bda59f4ced35e49a2814b67
7c3161bc.
2023-08-23 02:09:00 🚀 Imported #19 (0x2fe7958)
2023-08-23 02:09:01 🚀 Idle (1 peers), best: #19 (0x2fe7958), finalized #16 (0xecad_5adb), 0.5kB/s 0.6kB/s
2023-08-23 02:09:06 🚀 Imported #20 (0xfcac_2a6c)
2023-08-23 02:09:06 🚀 Idle (1 peers), best: #20 (0xfcac_2a6c), finalized #17 (0x5dse_zeda), 0.6kB/s 0.6kB/s
2023-08-23 02:09:11 🚀 Idle (1 peers), best: #20 (0xfcac_2a6c), finalized #18 (0xd3d8_4be3), 0.5kB/s 0.5kB/s
2023-08-23 02:09:12 🚀 Starting consensus session on top of parent 0xfcac001d392565e3ad0c97f8c76d19a60f90765beed4e36aa2c7c5351c3e32a6c
2023-08-23 02:09:12 🚀 Prepared block for proposing at 21 (0 ms) [hash: 0xa3a1ae0d16339905fad3e1d40526c47b5457095a5e5e2c75289a3fac1863f62a8; parent_hash: 0xfcac_2a6c; extrinsics (1): [0x9c67_0317]
2023-08-23 02:09:12 🚀 Pre-sealed block for proposal at 21. Hash now 0xe1204987de1a7c61fc85e80d1eedf431142e1da543b7b65b92ceb7d931e5, previously 0xa3a1ae0d16339905fad3e1d40526c47b5457095a5e5e2c75289a3fa
c1683f04.
2023-08-23 02:09:12 🚀 Imported #21 (0xe120_31e5)
2023-08-23 02:09:16 🚀 Idle (1 peers), best: #21 (0xe120_31e5), finalized #19 (0x2fe7958), 0.6kB/s 0.6kB/s
2023-08-23 02:09:18 🚀 Imported #22 (0xb4b8_14e5)
```

After starting other node we can see the peering is done (Node 2)

```
sami@sami-VB: ~/Desktop/patika-dev/polkadot/substrate-node-template
2023-08-23 02:08:54 🚫 Pre-sealed block for proposal at 18. Hash now 0xd3d87674bb1982e2a47d41e4e3c7a6dd83302bb61bad06490ff683a3e4be3, previously 0x8719443feb4740abebe7ac22da456c488984e56a43bf0403431d10
b2cfaa0c0.
2023-08-23 02:08:54 🚫 Imported #18 (0xd3d8_4be3)
2023-08-23 02:08:56 🚫 Idle (1 peers), best: #18 (0xd3d8_4be3), finalized #16 (0xeced5_sadb), 1 0.6kB/s 1 0.6kB/s
2023-08-23 02:08:59 🚫 Imported #19 (0x22fe_7958)
2023-08-23 02:09:01 🚫 Idle (1 peers), best: #19 (0x22fe_7958), finalized #17 (0x5d5e_2eda), 1 0.6kB/s 1 0.5kB/s
2023-08-23 02:09:01 🚫 Starting consensus session on top of parent 0x22fe1ae6dd3a6ec102db41c37f3a031eb12d3722a36938cb90112eb27958
2023-08-23 02:09:01 🚫 Prepared block for proposing at 20 (0 ms) [hash: 0x831bea02fae07a82f340c12326d7d1afief18f7e5787b61dc673943df0a748ef; parent_hash: 0x22fe_7958; extrinsics (1): [0x945b..1fc3]
2023-08-23 02:09:01 🚫 Pre-sealed block for proposal at 20. Hash now 0xfcxe01d3d255e3a0c97fbc76d19aa6f0765beed4e36a2c27c551c3e32a6c, previously 0x831bea02fae07a82f340c12326d7d1afief18f7e5787b61dc67394
3df0a748ef.
2023-08-23 02:09:06 🚫 Imported #20 (0xfcae_a2ac)
2023-08-23 02:09:06 🚫 Idle (1 peers), best: #20 (0xfcae_a2ac), finalized #17 (0x5d5e_2eda), 1 0.5kB/s 1 0.6kB/s
2023-08-23 02:09:11 🚫 Idle (1 peers), best: #20 (0xfcae_a2ac), finalized #18 (0xd3d8_4be3), 1 0.6kB/s 1 0.5kB/s
2023-08-23 02:09:12 🚫 Imported #21 (0xel20_31e5)
2023-08-23 02:09:15 🚫 Idle (1 peers), best: #21 (0xel20_31e5), finalized #19 (0x22fe_7958), 1 0.5kB/s 1 0.5kB/s
2023-08-23 02:09:18 🚫 Starting consensus session on top of parent 0xel20498fd8e1a7c01fc85e6d1ef431142e1d1543a7b66b92c7eb74d931e5
2023-08-23 02:09:18 🚫 Prepared block for proposing at 22 (0 ms) [hash: 0x831bea02fae07a82f340c12326d7d1afief18f7e5787b61dc673943df0a748ef; parent_hash: 0xel20_31e5; extrinsics (1): [0xc0d5..387e]
2023-08-23 02:09:19 🚫 Pre-sealed block for proposal at 22. Hash now 0xb4db82e5d3a6ed076103534c941cea9039c0f42f992045b346dfbd80914e5, previously 0xd014c273dbf11bb7c89e62bfde3ba31f514bf344dc81a5bdc2
637ab081f1.
2023-08-23 02:09:18 🚫 Imported #22 (0x4b48_14e5)
2023-08-23 02:09:18 🚫 Idle (1 peers), best: #22 (0x4b48_14e5), finalized #20 (0xfcae_a2ac), 1 0.5kB/s 1 0.7kB/s
2023-08-23 02:09:24 🚫 Imported #23 (0xb7c5_3f8e)
2023-08-23 02:09:26 🚫 Idle (1 peers), best: #23 (0xb7c5_3f8e), finalized #21 (0xel20_31e5), 1 0.6kB/s 1 0.5kB/s
2023-08-23 02:09:30 🚫 Starting consensus session on top of parent 0xb7c5d4a7f144c86098d3103178a8335516765:a4b2f80ddaae3f24df78e55c43f8e
2023-08-23 02:09:30 🚫 Prepared block for proposing at 24 (0 ms) [hash: 0xd02c2d4e3d413301664f960fa2d2b6b09c1c11892b3b38b0b37e8e0b1fac; parent_hash: 0xb7c5_3f8e; extrinsics (1): [0x921d..5d62]
2023-08-23 02:09:30 🚫 Pre-sealed block for proposal at 24. Hash now 0xafdc3bf87ce25528a2151f3ad52831d9ff95c3ff6e088b92e6b66fc0458c9, previously 0xd02c2d4e3d413301664f960fa2d2ab609c1c11892b3b38b0b37e
Bebb1f1acab.
2023-08-23 02:09:30 🚫 Imported #24 (0xafdc_58c9)
2023-08-23 02:09:31 🚫 Idle (1 peers), best: #24 (0xafdc_58c9), finalized #22 (0x4b48_14e5), 1 0.5kB/s 1 0.7kB/s
2023-08-23 02:09:31 🚫 Imported #25 (0xb7c5_3f8e)
2023-08-23 02:09:36 🚫 Idle (1 peers), best: #25 (0xb7c5_3f8e), finalized #22 (0xb7c5_3f8e), 1 0.5kB/s 1 0.5kB/s
2023-08-23 02:09:41 🚫 Idle (1 peers), best: #25 (0xb7c5_3f8e), finalized #23 (0xb7c5_3f8e), 1 0.6kB/s 1 0.5kB/s
2023-08-23 02:09:42 🚫 Starting consensus session on top of parent 0xb7c5d4a7f144c86098d3103178a8335516765:a4b2f80ddaae3f24df78e55c43f8e
2023-08-23 02:09:42 🚫 Prepared block for proposing at 26 (0 ms) [hash: 0xbfb2f653d4445f4acef72e97d4a48e7b408827fe7cb45f572c822c805f50f25; parent_hash: 0xe12a_871a; extrinsics (1): [0xe1f5e..a3df]
2023-08-23 02:09:42 🚫 Pre-sealed block for proposal at 26. Hash now 0xbdbd57effeedced25e7b799fc29c02b5e3f0745b4d42f99d567e508677f4c5, previously 0xbfb2f653d4445fa6cef27e97da4a8e7b408827afe7cb45fb572c822
c805f50f25.
2023-08-23 02:09:42 🚫 Imported #26 (0xb0bd_fac5)
2023-08-23 02:09:42 🚫 Idle (1 peers), best: #26 (0xb0bd_fac5), finalized #24 (0xafdc_58c9), 1 0.5kB/s 1 0.5kB/s
2023-08-23 02:09:42 🚫 Imported #27 (0xb0bd_e813)
2023-08-23 02:09:42 🚫 Idle (1 peers), best: #27 (0xb0bd_e813), finalized #25 (0xb12a_871a), 1 0.6kB/s 1 0.5kB/s
2023-08-23 02:09:42 🚫 Starting consensus session on top of parent 0xb0bd442832a441280ffdbdb4f9b55b3e340b61d4ffef314bef0713e6e813
2023-08-23 02:09:42 🚫 Prepared block for proposing at 28 (0 ms) [hash: 0xbaecbe200bd29eb6242c55f12c6c790515e7e958d378808dc456a6454c0a; parent_hash: 0xb70e_8e13; extrinsics (1): [0x1d9f..a848]
2023-08-23 02:09:54 🚫 Pre-sealed block for proposal at 28. Hash now 0x0417478eb1a065497170d53e90ee2757488b4369b28f2b5e4adc515d8a55, previously 0xbacbbe200bd29eb6242c55f12c6c790515e7e958d37880dc45
646a45f4ca0a.
2023-08-23 02:09:54 🚫 Imported #28 (0x4014_a855)
2023-08-23 02:09:55 🚫 Idle (1 peers), best: #28 (0x4014_a855), finalized #26 (0xb0bd_fac5), 1 0.5kB/s 1 0.6kB/s
2023-08-23 02:09:55 🚫 Imported #29 (0xbacf_b867)
2023-08-23 02:09:55 🚫 Idle (1 peers), best: #29 (0xbacf_b867), finalized #26 (0xb0bd_fac5), 1 0.5kB/s 1 0.5kB/s
2023-08-23 02:09:55 🚫 Starting consensus session on top of parent 0xbacf02d96cc2e866e27dd09c6d73f2c7a17216ddfddec069d037ae4e6ab867
2023-08-23 02:09:55 🚫 Prepared block for proposing at 30 (0 ms) [hash: 0x91394008428ae077017b3fd1c1ee1d1f8d35378b31ad26610ebc04537793def; parent_hash: 0xacf..b867; extrinsics (1): [0x7078..76a1]
2023-08-23 02:09:55 🚫 Pre-sealed block for proposal at 30. Hash now 0x3e3cc0e4ee5e9703ba3e8e2d9a70d0e85910d31f7b72e5a506c19520849fc9, previously 0x91394008428ae077017b3fd1c1ee1d1f8d35378b31ad26610ebc0
4537793def.
2023-08-23 02:09:54 🚫 Imported #30 (0x3e3e_9fc9)
2023-08-23 02:09:54 🚫 Idle (1 peers), best: #30 (0x3e3e_9fc9), finalized #27 (0xb0bd_e813), 1 0.6kB/s 1 0.6kB/s
[REDACTED]
```

After closing one of the nodes, the peering disconnects and the working node becomes idle again

```
sami@sami-VB: ~/Desktop/patika-dev/polkadot/substrate-node-template
0132def36.
2023-08-23 02:10:12 🚫 Imported #31 (0x18be_9a3e)
2023-08-23 02:10:16 🚫 Idle (1 peers), best: #31 (0x18be_9a3e), finalized #29 (0xacf..b867), 1 0.5kB/s 1 0.5kB/s
2023-08-23 02:10:18 🚫 Imported #32 (0xel08_4010)
2023-08-23 02:10:21 🚫 Idle (1 peers), best: #32 (0xel08_4010), finalized #30 (0x3e3e_9fc9), 1 0.6kB/s 1 0.6kB/s
2023-08-23 02:10:21 🚫 Starting consensus session on top of parent 0xel0825993ede72d1b934c2e250f514ad3ed50084796f2d09374e0b7394810
2023-08-23 02:10:24 🚫 Prepared block for proposing at 33 (0 ms) [hash: 0xel0825993ede72d1b934c2e250f514ad3ed50084796f2d09374e0b7394810; parent_hash: 0x8e88_4010; extrinsics (1): [0xb1b1..57a0]
2023-08-23 02:10:24 🚫 Pre-sealed block for proposal at 33. Hash now 0xel0825993ede72d1b934c2e250f514ad3ed50084796f2d09374e0b7394810
2023-08-23 02:10:24 🚫 Imported #33 (0x4fed..b437)
2023-08-23 02:10:26 🚫 Idle (1 peers), best: #33 (0x4fed..b437), finalized #31 (0x18be_9a3e), 1 0.5kB/s 1 0.6kB/s
2023-08-23 02:10:28 🚫 Imported #34 (0x4912_a1f4)
2023-08-23 02:10:28 🚫 Idle (1 peers), best: #34 (0x4912_a1f4), finalized #32 (0xe008_4010), 1 0.6kB/s 1 0.6kB/s
2023-08-23 02:10:36 🚫 Starting consensus session on top of parent 0x491200073873432eac7b1798d6ca25f5322bd515b7dd46867fc23d3bf13af14
2023-08-23 02:10:36 🚫 Prepared block for proposing at 35 (0 ms) [hash: 0x491200073873432eac7b1798d6ca25f5322bd515b7dd46867fc23d3bf13af14; parent_hash: 0x4912_a1f4; extrinsics (1): [0x94f9..0e43]
2023-08-23 02:10:36 🚫 Pre-sealed block for proposal at 35. Hash now 0x494772a0843d308e44334353b8e4d4806751e22a506c24616b3d90819, previously 0x5812921de07f15f5b77db5fabb6820614058502c0037cb
2023-08-23 02:10:24 🚫 Imported #35 (0x49497_d819)
2023-08-23 02:10:36 🚫 Idle (1 peers), best: #35 (0x49497_d819), finalized #32 (0x8e88_4010), 1 0.5kB/s 1 0.5kB/s
2023-08-23 02:10:41 🚫 Idle (1 peers), best: #35 (0x49497_d819), finalized #33 (0x4fed..b437), 1 0.6kB/s 1 0.5kB/s
2023-08-23 02:10:42 🚫 Imported #36 (0x4ded..f713)
2023-08-23 02:10:46 🚫 Idle (1 peers), best: #36 (0x4ded..f713), finalized #34 (0x4912_a1f4), 1 0.6kB/s 1 0.5kB/s
2023-08-23 02:10:46 🚫 Starting consensus session on top of parent 0x491200073873432eac7b1798d6ca25f5322bd515b7dd46867fc23d3bf13af14
2023-08-23 02:10:46 🚫 Prepared block for proposing at 37 (0 ms) [hash: 0x4949772a0843d308e44334353b8e4d4806751e22a506c24616b3d90819, previously 0x5812921de07f15f5b77db5fabb6820614058502c0037cb
2023-08-23 02:10:46 🚫 Pre-sealed block for proposal at 37. Hash now 0x9e89408428ae077017b3fd1c1ee1d1f8d35378b31ad26610ebc04973a392266c680ab1
2023-08-23 02:10:46 🚫 Imported #37 (0xb0e1_4e66)
2023-08-23 02:10:51 🚫 Idle (1 peers), best: #37 (0xb0e1_4e66), finalized #35 (0x49497_d819), 1 0.6kB/s 1 0.6kB/s
2023-08-23 02:10:54 🚫 Imported #38 (0xbdf7..40e8)
2023-08-23 02:10:56 🚫 Idle (1 peers), best: #38 (0xbdf7..40e8), finalized #36 (0x4ded..f713), 1 0.6kB/s 1 0.5kB/s
2023-08-23 02:11:00 🚫 Starting consensus session on top of parent 0xbdf722af9d42e2075e4f38b621c2dcf688949410cf248931a2a2eef40e8
2023-08-23 02:11:00 🚫 Prepared block for proposing at 39 (0 ms) [hash: 0x194ad83cd592bd99a2e736f3c9e6b0d6d175997eabd247ec74, previously 0x194ad83cd592bd99a49bd984fcbbf182e4135ee0c85252ad6
013639c5dc.
2023-08-23 02:11:00 🚫 Imported #39 (0x6c76_ec74)
2023-08-23 02:11:00 🚫 Idle (1 peers), best: #39 (0x6c76_ec74), finalized #36 (0x4ded..f713), 1 0.5kB/s 1 0.6kB/s
2023-08-23 02:11:06 🚫 Imported #40 (0x2613_05bc)
2023-08-23 02:11:06 🚫 Idle (1 peers), best: #40 (0x2613_05bc), finalized #37 (0xb0e1_4e66), 1 0.6kB/s 1 0.5kB/s
2023-08-23 02:11:06 🚫 Imported #41 (0x2613_05bc)
2023-08-23 02:11:06 🚫 Idle (1 peers), best: #41 (0x2613_05bc), finalized #38 (0xbdf7..40e8), 1 0.6kB/s 1 0.5kB/s
2023-08-23 02:11:11 🚫 Starting consensus session on top of parent 0x26139100d301dbeef70aae081b724dd9dc7d439406129a1716aa0d8a4505bc
2023-08-23 02:11:12 🚫 Prepared block for proposing at 41 (0 ms) [hash: 0x4d1268694abdb6093416234f47d17a610397299fc9b6dd30f6826622097eb0; parent_hash: 0x2613_05bc; extrinsics (1): [0xb1b0..59cb]
2023-08-23 02:11:12 🚫 Pre-sealed block for proposal at 41. Hash now 0x32a5c8da45e721af93c73c37eb04e201942ae9d598eaddff287842c495ada, previously 0x4d1268694abdb6093416234f47d17a610397299fc9b6dd30f682
0622097eb0.
2023-08-23 02:11:12 🚫 Imported #41 (0x32a5_5ada)
2023-08-23 02:11:12 🚫 Idle (1 peers), best: #41 (0x32a5_5ada), finalized #39 (0x6c76_ec74), 1 0.5kB/s 1 0.5kB/s
2023-08-23 02:11:12 🚫 Imported #42 (0x2613_05bc)
2023-08-23 02:11:12 🚫 Idle (1 peers), best: #42 (0x2613_05bc), finalized #40 (0x2613_05bc), 1 0.6kB/s 1 0.6kB/s
2023-08-23 02:11:12 🚫 Imported #43 (0x82d2_19c5)
2023-08-23 02:11:12 🚫 Idle (0 peers), best: #43 (0x82d2_19c5), finalized #41 (0x32a5_5ada), 1 0.5kB/s 1 0.6kB/s
2023-08-23 02:11:31 🚫 Idle (0 peers), best: #43 (0x82d2_19c5), finalized #41 (0x32a5_5ada), 1 0 1 0
```

Generating Aura and Granpa keys for Node 1

```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-front-end-template$ cd ..
sami@sami-VB: ~/Desktop/patika-dev-polkadot$ cd substrate-node-template/
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template key generate --scheme Sr25519 --password-interactive
Key password:
Secret phrase: say improve poverty wall observe ordinary milk jazz dumb agent city dilemma
Network ID: substrate
Secret seed: 0xf7b6946a4d0b144b8c39ee9b8dacab5b57792591923dabe0a6ab9b858fc77fac
Public key (hex): 0xe445d40145973b8b623a2e8728090f04b6395fa1bee7fe14cf1a4a1fe4b59
Account ID: 0xe445d40145973b8b623a2e8728090f04b6395fa1bee7fe14cf1a4a1fe4b59
Public key (SS58): SHEx1M1paYyzxqUm663RkXjLvurQUFgwMBsv1NSvUvu7fdFH
SS58 Address: SHEx1M1paYyzxqUm663RkXjLvurQUFgwMBsv1NSvUvu7fdFH
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ^C
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ^C
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template key inspect --password-interactive --scheme Ed25519 "say impr
ove poverty wall observe ordinary milk jazz dumb agent city dilemma"
Key password:
Secret phrase: say improve poverty wall observe ordinary milk jazz dumb agent city dilemma
Network ID: substrate
Secret seed: 0xf7b6946a4d0b144b8c39ee9b8dacab5b57792591923dabe0a6ab9b858fc77fac
Public key (hex): 0xbbee2d6c4f80c7bb64baacd36a54ba19bb1490e1b09322011f7c81dacc63afda
Account ID: 0xbbee2d6c4f80c7bb64baacd36a54ba19bb1490e1b09322011f7c81dacc63afda
Public key (SS58): SGNZLhgSBjM1bNKRxunWuKricKDfr2VdwSowp5dYwZcUSM
SS58 Address: SGNZLhgSBjM1bNKRxunWuKricKDfr2VdwSowp5dYwZcUSM
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$
```

Generating Aura and Grandpa keys for Node 2

```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-front-end-template$ ./target/release/node-template key generate --scheme Sr25519 --password-interactive
bash: ./target/release/node-template: No such file or directory
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-front-end-template$ cd ..
sami@sami-VB: ~/Desktop/patika-dev-polkadot$ cd substrate-node-template/
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template key generate --scheme Sr25519 --password-interactive
Key password:
Secret phrase: you jewel casual attract hungry pact flower dove fiction word gossip wear
Network ID: substrate
Secret seed: 0xfcfd7b572995dc42785638d79ca204c1afdf5a0f6de78f32b5b8324900352d5ee
Public key (hex): 0x9ec137a4143985a68a87642f6f389637e18a13d454f63c3651f04f42c634e451
Account ID: 0x9ec137a4143985a68a87642f6f389637e18a13d454f63c3651f04f42c634e451
Public key (SS58): SFerpYN7jnpAtKbDUzil5a6wKMMN1xBG1uDtg6uBPZsQ6axX
SS58 Address: SFerpYN7jnpAtKbDUzil5a6wKMMN1xBG1uDtg6uBPZsQ6axX
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template key inspect --password-interactive --scheme Ed25519 "you jewe
l casual attract hungry pact flower dove fiction word gossip wear"
Key password:
Secret phrase: you jewel casual attract hungry pact flower dove fiction word gossip wear
Network ID: substrate
Secret seed: 0xfcfd7b572995dc42785638d579ca204c1afdf5a0f6de78f32b5b8324900352d5ee
Public key (hex): 0xcd4d8b4a5a1f38d875cf54b42fb5e1a51677e07bb6e50f4c75c4e479b9b35
Account ID: 0xcd4d8b4a5a1f38d875cf54b42fb5e1a51677e07bb6e50f4c75c4e479b9b35
Public key (SS58): SGhtl57Q6RYtaFdgAVJu76e3dwREcFcwpnkr7uJ1qFkuYnyS
SS58 Address: SGhtl57Q6RYtaFdgAVJu76e3dwREcFcwpnkr7uJ1qFkuYnyS
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$
```

Changing customSpec.json for Aura and Grandpa keys

```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ cat customSpec.json
[{"name": "My Custom Testnet",
 "id": "local_testnet",
 "chainType": "Local",
 "bootNodes": [],
 "telemetryEndpoints": null,
 "protocid": null,
 "properties": null,
 "codeSubstitutes": {},
 "genesis": {
   "runtime": {
     "system": [
       {"code": "0x52bc537646db8e0528b52ffd00580c2204ae1a052910501038ee281dff097681a5228c1b85fc968d982a28723d05346082bafcd862228286fc47208f07b81fadde59c6a5b02c2
     ],
     "aura": [
       "authorities": [
         "SHEx1M1paYyzxqUm663RkXjLvurQUFgwMBsv1NSvUvu7fdFH",
         "SFerpYN7jnpAtKbDUzil5a6wKMMN1xBG1uDtg6uBPZsQ6axX"
       ]
     ],
     "grandpa": {
       "authorities": [
         [
           "SGNZLhgSBjM1bNKRxunWuKricKDfr2VdwSowp5dYwZcUSM",
           1
         ],
         [
           "SGhtl57Q6RYtaFdgAVJu76e3dwREcFcwpnkr7uJ1qFkuYnyS",
           1
         ]
       ]
     }
   }
 }
```

Starting the first node with the customSpecRaw.json

```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ sudo nano customSpec.json
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ sudo nano customSpec.json
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template build-spec --chain=customSpec.json --raw --disable-default-bootnode > customSpecRaw.json
2023-08-23 02:30:51 Building chain spec
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ls
Cargo.lock  CODEOWNERS  customSpec.json  docs  flake.nix  node  README.md  rustfmt.toml  scripts  target
Cargo.toml  Containerfile  customSpecRaw.json  flake.lock  LICENSE  pallets  runtime  rust-toolchain.toml  shell.nix
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template \
--base-path /tmp/node01 \
--chain ./customSpecRaw.json \
--port 30333 \
--rpc-port 9945 \
--telemetry-url "wss://telemetry.polkadot.io/submit/" \
--validator \
--rpc-methods Unsafe \
--name MyNode01 \
--password-interactive
Keystore password:
2023-08-23 02:31:29 Substrate Node
2023-08-23 02:31:29 🌟 version 4.0.0-dev-f621c2a4c6d
2023-08-23 02:31:29 ❤️ by Substrate DevHub <https://github.com/substrate-developer-hub>, 2017-2023
2023-08-23 02:31:29 📜 Chain specification: My Custom Testnet
2023-08-23 02:31:29 🎖 Node name: MyNode01
2023-08-23 02:31:29 🎙 Role: AUTHORITY
2023-08-23 02:31:29 🏛 Database: Rocksdb at /tmp/node01/chains/local_testnet/db/full
2023-08-23 02:31:30 🚀 Initializing Genesis block/state (state: 0x0eed...2ddd, header-hash: 0x6da1...56fc)
2023-08-23 02:31:30 🌐 Loading GRANDPA authority set from genesis on what appears to be first startup.
2023-08-23 02:31:30 Using default protocol ID "sup" because none is configured in the chain specs
2023-08-23 02:31:30 🎯 Local node identity is: 1203KooQyknJDRcexqjSRFXj5wWHV6xxSGMx2rMVu5Eby5wRJYv
2023-08-23 02:31:30 🎨 Operating system: linux
2023-08-23 02:31:30 🖥 CPU architecture: x86_64
2023-08-23 02:31:30 🖥 Target environment: gnu
2023-08-23 02:31:30 🖥 CPU: AMD Ryzen 7 5700G with Radeon Graphics
2023-08-23 02:31:30 🖥 CPU cores: 4
2023-08-23 02:31:30 🖥 Memory: 3907MB
2023-08-23 02:31:30 🖥 Kernel: 6.2.0-26-generic
2023-08-23 02:31:30 🖥 Linux distribution: Ubuntu 22.04.3 LTS
2023-08-23 02:31:30 🖥 Virtual machine: yes
2023-08-23 02:31:30 🎯 Highest known block at #0
2023-08-23 02:31:30 🚀 Running JSON-RPC server: addr=127.0.0.1:9945, allowed origins=[["http://localhost:*", "http://127.0.0.1:*", "https://localhost:", "https://127.0.0.1:"], "https://polkadot.js.org"]]
2023-08-23 02:31:30 🎯 Prometheus exporter started at 127.0.0.1:9615
2023-08-23 02:31:35 🎯 Idle (0 peers), best: #0 (0x6da1...56fc), finalized #0 (0x6da1...56fc), ↓ 0 ↑ 0
```

Adding keys to keystore (Node 1)

```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template key insert --base-path /tmp/node01 \
--chain customSpecRaw.json \
--scheme Sr25519 \
--suri "say improve poverty wall observe ordinary milk jazz dumb agent city dilemma" \
--password-interactive \
--key-type aura
Keystore password:
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template key insert --base-path /tmp/node01 --chain customSpecRaw.json \
on --scheme Ed25519 --suri "say improve poverty wall observe ordinary milk jazz dumb agent city dilemma" --password-interactive --key-type gran
Keystore password:
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ls /tmp/node01/chains/local_testnet/keystore
61757261e445d40145973b8b623a32e8728090f04b86395fa1bee7fe714cf1a4a1fe4b59 6772616ebec2d6c4f80c7bb64baacd36a54baa19bb1490e1b09322011f7c81dacc63afda
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$
```

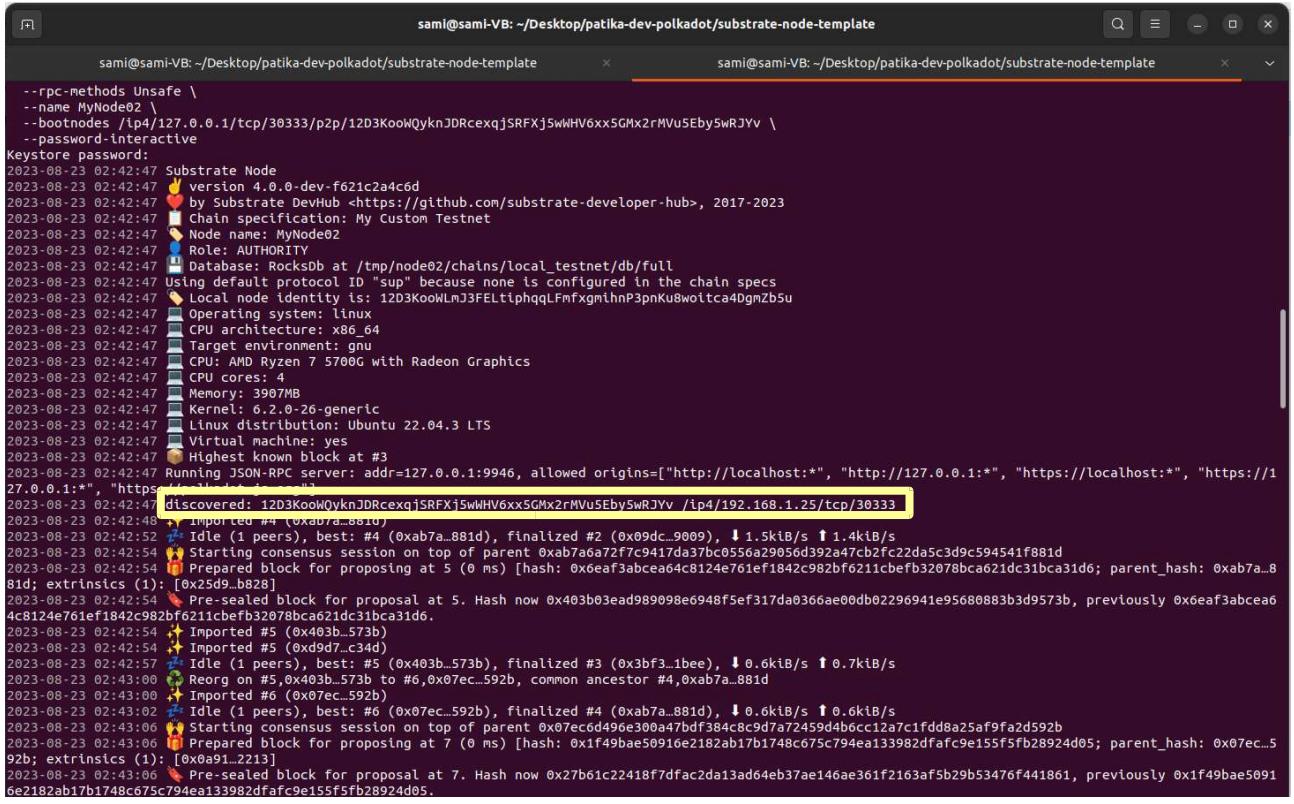
Adding keys to keystore (Node 2)

```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template key insert --base-path /tmp/node02 --chain customSpecRaw.js  
on --scheme Ed25519 --suri "you jewel casual attract hungry pact flower dove fiction word gossip wear" --password=interactive --key-type gran  
Keystore password:  
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ./target/release/node-template key insert --base-path /tmp/node02 --chain customSpecRaw.js  
on --scheme Sr25519 --suri "you jewel casual attract hungry pact flower dove fiction word gossip wear" --password=interactive --key-type aura  
Keystore password:  
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ls /tmp/node01/chains/local_testnet/keystore  
617572619ec137a4143985a68a87642f6f389637e18a13d454f63c3651f04f42c634e451 6772616bee2d6c4f80c7bb64baacd36a54bba1490e1b09322011f7c81dacc63afda  
61757261e445d40145973bb623a32e8728090f04b86395fa1bee7fe714cf1a4a1fe4b59 6772616ecd4d8b4a5a41f38dd875cf54bb42fbe51a51677e67bb6e50f4c75c4e479b9b35  
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template$ ls /tmp/node02/chains/local_testnet/keystore  
617572619ec137a4143985a68a87642f6f389637e18a13d454f63c3651f04f42c634e451 6772616ecd4d8b4a5a41f38dd875cf54bb42fbe51a51677e67bb6e50f4c75c4e479b9b35
```

After starting the other node, discover is successful

```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template  
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template  
  
2023-08-23 02:40:24 ⚡ Imported #3 (0x3bf3...1bee)  
2023-08-23 02:40:26 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0.3kB/s ↑ 0.4kB/s  
2023-08-23 02:40:31 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:40:36 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:40:41 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:40:46 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:40:51 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:40:56 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:01 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:06 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:11 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:16 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:21 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:26 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:31 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:36 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:41 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:46 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:51 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:41:56 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:01 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:06 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:11 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:16 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:21 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:26 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:31 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:36 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:41 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:46 ⚡ Idle (0 peers), best: #3 (0x3bf3...1bee), finalized #0 (0x6dal...56fc), ↓ 0 ↑ 0  
2023-08-23 02:42:47 ⚡ Discovered: 12D3Ko0LmJ3FELtiphqqLFmfXqmihnP3pnKu8w0lca440gmzb5u /ip4/192.168.1.25/tcp/30334  
2023-08-23 02:42:48 ⚡ Starting consensus session on top of parent 0x5b139208c713de59097d008ce09572a7129011234a051de8bc32ed44d11bee  
bee; extrinsics (1): [0xd46c...c48e]  
2023-08-23 02:42:48 ⚡ Prepared block for proposing at 4 (0 ms) [hash: 0x269fa5710df0093555b32adce7fdaff1f8ff4365d76d24cbc750fa900fcad2; parent_hash: 0x3bf3...1  
bee; extrinsics (1): [0xd46c...c48e]]  
2023-08-23 02:42:48 ⚡ Pre-sealed block for proposal at 4. Hash now 0xab7a6a72f7c9417da37bc056a29056d392a47cb2fc22da5c3d9c594541f881d, previously 0x269fa5710d9  
f0093555b32adce7fdaff1f8ff4365d76d24cbc750fa900fcad2.  
2023-08-23 02:42:48 ⚡ Imported #4 (0xab7a...881d)  
2023-08-23 02:42:51 ⚡ Idle (1 peers), best: #4 (0xab7a...881d), finalized #2 (0x09dc...9009), ↓ 1.3kB/s ↑ 1.4kB/s  
2023-08-23 02:42:54 ⚡ Starting consensus session on top of parent 0xab7a6a72f7c9417da37bc0556a29056d392a47cb2fc22da5c3d9c594541f881d  
2023-08-23 02:42:54 ⚡ Prepared block for proposing at 5 (0 ms) [hash: 0x0eaf3abce64c8124e761ef1842c982bf6211bcfb32078bc621dc31bca31d6; parent_hash: 0xab7a...8  
81d; extrinsics (1): [0x25d9...b828]]  
2023-08-23 02:42:54 ⚡ Pre-sealed block for proposal at 5. Hash now 0xd9d7f27d4748f51e271a45d03c52b4b86d8e55be9c2310c3a6ec76664b5c34d, previously 0x6eaf3abce6  
4c8124e761ef1842c982bf6211bcfb32078bc621dc31bca31d6.  
2023-08-23 02:42:54 ⚡ Imported #5 (0xd9d7...c34d)  
2023-08-23 02:42:54 ⚡ Imported #5 (0x403b...573b)
```

Also for the second node:



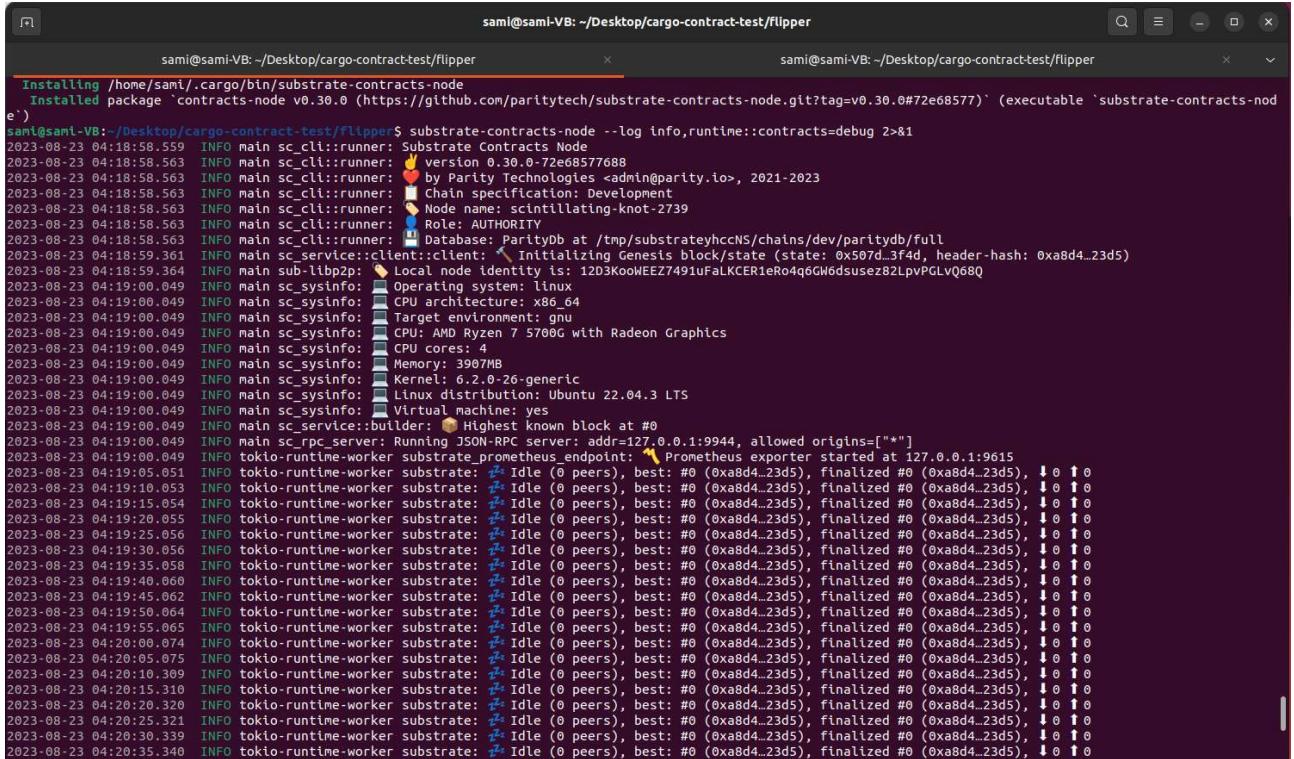
```
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template
sami@sami-VB: ~/Desktop/patika-dev-polkadot/substrate-node-template

--rpc-methods Unsafe \
--name MyNode02 \
--bootnodes /ip4/127.0.0.1/tcp/30333/p2p/12D3KooWQyknJDRcexqjSRFXj5wHV6xx5GMx2rMVu5Eby5wRJYv \
--password-interactive

Keystore password:
Substrate Node
version 4.0.0-dev-f621c2a4c6d
by Substrate DevHub <https://github.com/substrate-developer-hub>, 2017-2023
Chain specification: My Custom Testnet
Node name: MyNode02
Role: AUTHORITY
Database: RocksDb at /tmp/node02/chains/local_testnet/db/full
Using default protocol ID "sup" because none is configured in the chain specs
Local node identity is: 12D3KooWLMj3FELtphqQLfmfxgmhnP3pnku8woltca4Dgmzb5u
Operating system: linux
CPU architecture: x86_64
Target environment: gnu
CPU: AMD Ryzen 7 5700G with Radeon Graphics
CPU cores: 4
Memory: 3907MB
Kernel: 6.2.0-26-generic
Linux distribution: Ubuntu 22.04.3 LTS
Virtual machine: yes
Highest known block at #
Running JSON-RPC server: addr=127.0.0.1:9946, allowed origins=["http://localhost:*", "http://127.0.0.1:", "https://localhost:", "https://127.0.0.1:"]
discovered: 12D3KooWQyknJDRcexqjSRFXj5wHV6xx5GMx2rMVu5Eby5wRJYv /ip4/192.168.1.25/tcp/30333
Imported #0 (0xa07a..8810)
Idle (1 peers), best: #4 (0xab7a..881d), finalized #2 (0x09dc..9009), ↓ 1.5kiB/s ↑ 1.4kiB/s
Starting consensus session on top of parent 0xab7a6a72f7c9417da37bc0556a29056d392a47cb2fc22da5c3d9c594541f881d
Prepared block for proposing at 5 (0 ms) [hash: 0x6eaf3abcce64c8124e761ef1842c982bf6211cbefb3207bca621dc31bca31d6; parent_hash: 0xab7a..881d; extrinsics: (1): [0x25d9..b828]}
Pre-sealed block for proposal at 5. Hash now 0x403b03ead98998e6948f5ef317da0366ae00db02296941e9568883b3d9573b, previously 0x6eaf3abcce64c8124e761ef1842c982bf6211cbefb3207bca621dc31bca31d6.
Imported #5 (0x403b..573b)
Imported #5 (0xd9d7..c34d)
Idle (1 peers), best: #5 (0x403b..573b), finalized #3 (0x3bf3..1bee), ↓ 0.6kiB/s ↑ 0.7kiB/s
Reorg on #5, 0x403b..573b to #6, 0x07ec..592b, common ancestor #4, 0xab7a..881d
Imported #6 (0x07ec..592b)
Idle (1 peers), best: #6 (0x07ec..592b), finalized #4 (0xab7a..881d), ↓ 0.6kiB/s ↑ 0.6kiB/s
Starting consensus session on top of parent 0x07ec6d496e300a47bd384c8c9d7a72459d4b6cc12a7c1fdd8a25af9fa2d592b
Prepared block for proposing at 7 (0 ms) [hash: 0x1f49bae50916e2182ab17b1748c675c794ea133982dfafc9e155f5fb28924d05; parent_hash: 0x07ec..592b; extrinsics: (1): [0xa091..2213]}
Pre-sealed block for proposal at 7. Hash now 0x27b61c22418f7dfac2da13ad64eb37ae146ae361f2163af5b29b53476f441861, previously 0x1f49bae50916e2182ab17b1748c675c794ea133982dfafc9e155f5fb28924d05.
```

Smart Contracts

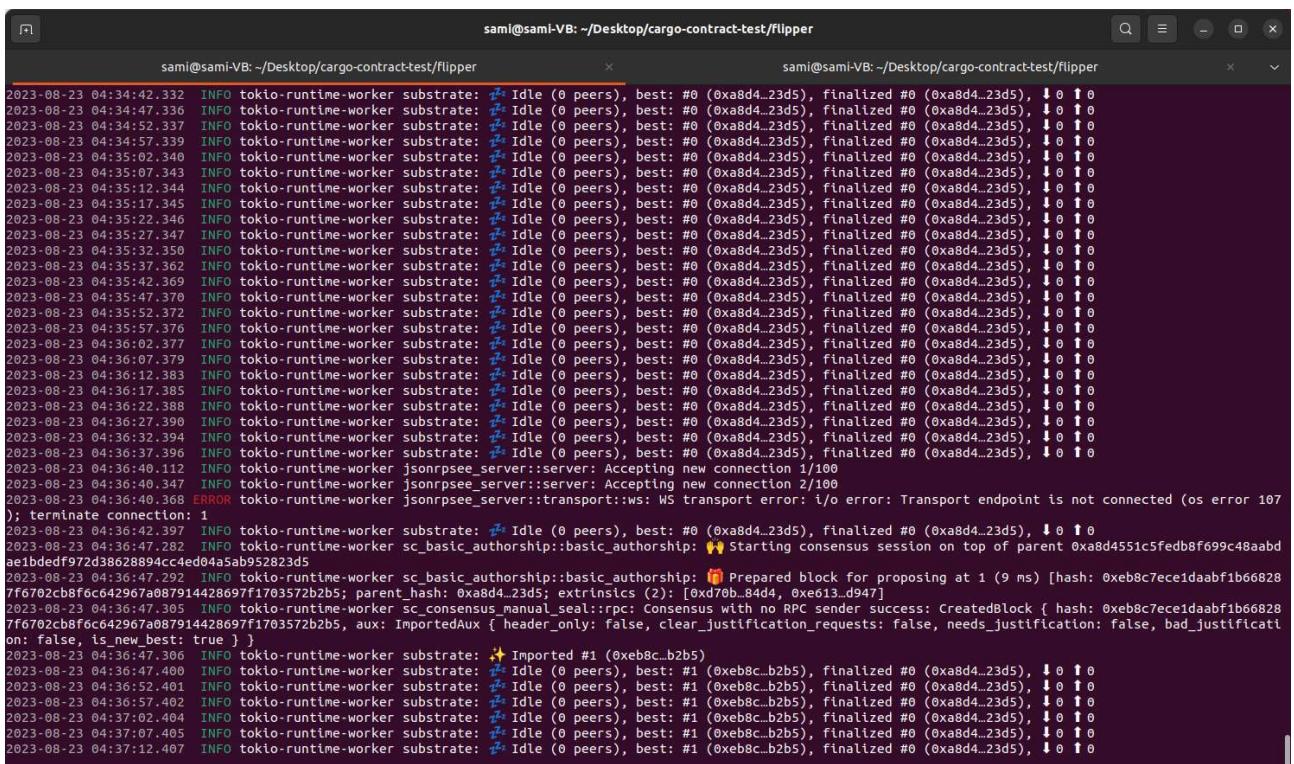
Running contracts node



```
sami@sami-VB: ~/Desktop/cargo-contract-test/flipper
Installing /home/sami/.cargo/bin/substrate-contracts-node
Installed package `contracts-node v0.30.0` (https://github.com/paritytech/substrate-contracts-node.git?tag=v0.30.0#72e68577) (executable `substrate-contracts-node`)

sami@sami-VB:~/Desktop/cargo-contract-test/flipper
2023-08-23 04:18:58.559 INFO main sc_cli::runner: Substrate Contracts Node
2023-08-23 04:18:58.563 INFO main sc_cli::runner: Version 0.30.0-72e68577
2023-08-23 04:18:58.563 INFO main sc_cli::runner: by Parity Technologies <admin@parity.io>, 2021-2023
2023-08-23 04:18:58.563 INFO main sc_cli::runner: Chain specification: Development
2023-08-23 04:18:58.563 INFO main sc_cli::runner: Node name: scintillating-knot-2739
2023-08-23 04:18:58.563 INFO main sc_cli::runner: Role: AUTHORITY
2023-08-23 04:18:58.563 INFO main sc_cli::runner: Database: ParityDb at /tmp/substrateyccNS/chains/dev/paritydb/full
2023-08-23 04:18:59.361 INFO main sc_service::client: Initializing Genesis block/state (state: 0x507d..3f4d, header-hash: 0xa8d4..23d5)
2023-08-23 04:18:59.361 INFO main sub-libp2p: Local node identity is: 1D23KooWEEZ7491uFaLKCER1eRo4q6GW6dsusez82LpvPGLv68Q
2023-08-23 04:19:00.049 INFO main sc_sysinfo: Operating system: linux
2023-08-23 04:19:00.049 INFO main sc_sysinfo: CPU architecture: x86_64
2023-08-23 04:19:00.049 INFO main sc_sysinfo: Target environment: gnu
2023-08-23 04:19:00.049 INFO main sc_sysinfo: CPU: AMD Ryzen 7 5700G with Radeon Graphics
2023-08-23 04:19:00.049 INFO main sc_sysinfo: CPU cores: 4
2023-08-23 04:19:00.049 INFO main sc_sysinfo: Memory: 3907MB
2023-08-23 04:19:00.049 INFO main sc_sysinfo: Kernel: 6.2.0-26-generic
2023-08-23 04:19:00.049 INFO main sc_sysinfo: Linux distribution: Ubuntu 22.04.3 LTS
2023-08-23 04:19:00.049 INFO main sc_sysinfo: Virtual machine: yes
2023-08-23 04:19:00.049 INFO main sc_service::builder: Highest known block at #0
2023-08-23 04:19:00.049 INFO main sc_rpc_server: Running JSON-RPC server: addr=127.0.0.1:9944, allowed origins=["*"]
2023-08-23 04:19:00.049 INFO tokio-runtime-worker substrate_prometheus_endpoint: Prometheus exporter started at 127.0.0.1:9615
2023-08-23 04:19:05.061 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:19:10.853 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:19:15.054 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:19:20.055 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:19:25.056 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:19:30.056 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:19:35.058 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:19:40.060 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:19:45.062 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:19:50.064 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:19:55.065 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:20:00.074 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:20:05.075 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:20:10.309 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:20:15.310 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:20:20.320 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:20:25.321 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:20:30.339 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:20:35.340 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
```

After instantiating contract the node responses like this



```
sami@sami-VB: ~/Desktop/cargo-contract-test/flipper
sami@sami-VB: ~/Desktop/cargo-contract-test/flipper
2023-08-23 04:34:42.332 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:34:47.336 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:34:52.337 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:34:57.339 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:02.344 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:07.343 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:12.344 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:17.345 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:22.346 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:27.347 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:32.350 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:37.362 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:42.369 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:47.370 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:52.372 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:35:57.376 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:02.377 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:07.379 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:12.383 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:17.385 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:22.388 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:27.390 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:32.394 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:37.396 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:40.112 INFO tokio-runtime-worker jsonrpsee_server::server: Accepting new connection 1/100
2023-08-23 04:36:40.347 INFO tokio-runtime-worker jsonrpsee_server::server: Accepting new connection 2/100
2023-08-23 04:36:40.368 ERROR tokio-runtime-worker jsonrpsee_server::transport::ws: W5 transport error: i/o error: Transport endpoint is not connected (os error 107)
; terminate connection: 1
2023-08-23 04:36:42.397 INFO tokio-runtime-worker substrate: # Idle (0 peers), best: #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:47.282 INFO tokio-runtime-worker sc_basic_authorship::basic_authorship: 🎉 Starting consensus session on top of parent 0xa8d4551c5fedb8f699c4aabddae1bbedf972d38628894cc4ed04a5ab952823d5
2023-08-23 04:36:47.292 INFO tokio-runtime-worker sc_basic_authorship::basic_authorship: 🎉 Prepared block for proposing at 1 (9 ms) [hash: 0xeb8c7ece1daabf1b668287f6702cb8f6c42967a087914428697f1703572b2b5; parent_hash: 0xa8d4..23d5; extrinsics (2): [0xd70b..84d4, 0xe013..d947]
2023-08-23 04:36:47.305 INFO tokio-runtime-worker sc_consensus_manual_seal::rpc: Consensus with no RPC sender success: CreatedBlock { hash: 0xeb8c7ece1daabf1b668287f6702cb8f6c42967a087914428697f1703572b2b5, aux: ImportedAux { header_only: false, clear_justification_requests: false, needs_justification: false, bad_justification_on: false, is_new_best: true } }
2023-08-23 04:36:47.306 INFO tokio-runtime-worker substrate: ✨ Imported #1 (0xeb8c..b2b5)
2023-08-23 04:36:47.400 INFO tokio-runtime-worker substrate: #1 (0xeb8c..b2b5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:52.401 INFO tokio-runtime-worker substrate: #1 (0xeb8c..b2b5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:36:57.402 INFO tokio-runtime-worker substrate: #1 (0xeb8c..b2b5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:37:02.404 INFO tokio-runtime-worker substrate: #1 (0xeb8c..b2b5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:37:07.405 INFO tokio-runtime-worker substrate: #1 (0xeb8c..b2b5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
2023-08-23 04:37:12.407 INFO tokio-runtime-worker substrate: #1 (0xeb8c..b2b5), finalized #0 (0xa8d4..23d5), ↓ 0 ↑ 0
```

And the success message for instantiating the contract from the contract side

```
sami@sami-VB: ~/Desktop/cargo-contract-test/flipper
sami@sami-VB: ~/Desktop/cargo-contract-test/flipper
sami@sami-VB: ~/Desktop/cargo-contract-test/flipper$ cargo contract instantiate --constructor new --args "false" --suri //Alice --salt $(date +%s)
Dry-running new (skip with --skip-dry-run)
Success! Gas required estimated at Weight(ref_time: 277380603, proof_size: 16689)
Confirm transaction details: (skip with --skip-confirm)
Constructor new
  Args false
  Gas limit Weight(ref_time: 277380603, proof_size: 16689)
Submit? (Y/n): Y
Code hash 0x000a1abf00b4162c0d0da0b33928573372c345769aacb0ded8855f7b9dda398c
Contract 5G3bafvYWffqSBm2Kz1uTnMBUrQ8c9pC721vXkh1wToymg42
Events
Event Balances → Withdraw
  who: 5GrwaEF5zXb26Fz9rcQpDWS57CtERHpNehXCPcNoHGKutQY
  amount: 3.599262098mUNIT
Event Balances → Reserved
  who: 5GrwaEF5zXb26Fz9rcQpDWS57CtERHpNehXCPcNoHGKutQY
  amount: 262.525mUNIT
Event Contracts → CodeStored
  code_hash: 0x000a1abf00b4162c0d0da0b33928573372c345769aacb0ded8855f7b9dda398c
Event System → NewAccount
  account: SHqf4EPnxzfhnCnYAqcDEPj3D129jve3tJ6GeRSbmW4GTmzz
Event Balances → Endowed
  account: SHqf4EPnxzfhnCnYAqcDEPj3D129jve3tJ6GeRSbmW4GTmzz
  free_balance: 100.765mUNIT
Event Balances → Transfer
  from: 5GrwaEF5zXb26Fz9rcQpDWS57CtERHpNehXCPcNoHGKutQY
  to: SHqf4EPnxzfhnCnYAqcDEPj3D129jve3tJ6GeRSbmW4GTmzz
  amount: 100.765mUNIT
Event System → NewAccount
  account: 5G3bafvYWffqSBm2Kz1uTnMBUrQ8c9pC721vXkh1wToymg42
Event Balances → Endowed
  account: 5G3bafvYWffqSBm2Kz1uTnMBUrQ8c9pC721vXkh1wToymg42
  free_balance: 1mUNIT
Event Balances → Transfer
  from: 5GrwaEF5zXb26Fz9rcQpDWS57CtERHpNehXCPcNoHGKutQY
  to: 5G3bafvYWffqSBm2Kz1uTnMBUrQ8c9pC721vXkh1wToymg42
  amount: 1mUNIT
Event Contracts → Instantiated
  deployer: 5GrwaEF5zXb26Fz9rcQpDWS57CtERHpNehXCPcNoHGKutQY
  contract: 5G3bafvYWffqSBm2Kz1uTnMBUrQ8c9pC721vXkh1wToymg42
Event Balances → Transfer
  from: 5GrwaEF5zXb26Fz9rcQpDWS57CtERHpNehXCPcNoHGKutQY
  to: SHqf4EPnxzfhnCnYAqcDEPj3D129jve3tJ6GeRSbmW4GTmzz
  amount: 100.005mUNIT
Event TransactionPayment → TransactionFeePaid
  who: 5GrwaEF5zXb26Fz9rcQpDWS57CtERHpNehXCPcNoHGKutQY
  actual_fee: 3.599262098mUNIT
  tip: 0UNIT
Event System → ExtrinsicSuccess
  dispatch_info: DispatchInfo { weight: Weight { ref_time: 3599249524, proof_size: 9095 }, class: Normal, pays_fee: Yes }
```

Lastly executing the get and flip commands

```
sami@sami-VB:~/Desktop/cargo-contract-test/flipper$ cargo contract call --contract 5G3bafvYWFfQSBm2Kz1uTmMBUrQ8c9pcC721vXkhiWToymg42 --message get --suri //Alice --dry-run
  Result Success!
  Reverted false
  Data Tuple { ident: Some("Ok"), values: [Bool(false)] }
```

```
sami@sami-VB:~/Desktop/cargo-contract-test/flipper$ cargo contract call --contract 5G3bafvYWFfQSBm2Kz1uTmMBUrQ8c9pcC721vXkhiWToymg42 --message flip --suri //Alice
Dry-running flip (skip with --skip-dry-run)
Success! Gas required estimated at Weight(ref_time: 819276624, proof_size: 29431)
Confirm transaction details: (skip with --skip-confirm)
  Message flip
    Args
      Gas limit Weight(ref_time: 819276624, proof_size: 29431)
Submit? (Y/n): y
Events
  Event Balances → Withdraw
    who: 5GrwaEF5zXb26Fz9rcQpDWS57CtERHpNehXCpCNoHGKutQY
    amount: 124.414154μUNIT
  Event Contracts → Called
    caller: Signed(5GrwaEF5zXb26Fz9rcQpDWS57CtERHpNehXCpCNoHGKutQY)
    contract: 5G3bafvYWFfQSBm2Kz1uTmMBUrQ8c9pcC721vXkhiWToymg42
  Event TransactionPayment → TransactionFeePaid
    who: 5GrwaEF5zXb26Fz9rcQpDWS57CtERHpNehXCpCNoHGKutQY
    actual_fee: 124.414154μUNIT
    tip: 0UNIT
  Event System → ExtrinsicSuccess
    dispatch_info: DispatchInfo { weight: Weight { ref_time: 1760933624, proof_size: 19853 }, class: Normal, pays_fee: Yes }
```

```
sami@sami-VB:~/Desktop/cargo-contract-test/flipper$ cargo contract call --contract 5G3bafvYWFfQSBm2Kz1uTmMBUrQ8c9pcC721vXkhiWToymg42 --message get --suri //Alice --dry-run
  Result Success!
  Reverted false
  Data Tuple { ident: Some("Ok"), values: [Bool(true)] }
```