

Quorum

1. Launch Cakeshop : `docker run -p 8080:8080 quorumengineering/cakeshop`
 - a. If this doesn't launch, either stop and remove prior instances using docker or change the name.
 - b. If it says there is already an instance running, go to: `<IP>:8080`

The screenshot shows the Cakeshop Dashboard with the following components:

- CONSOLE** (left sidebar): Includes links for MANAGED NODE, CONTRACTS, SANDBOX, CHAIN EXPLORER, WALLET, PEERS, and HELP.
- NODE STATUS** (top center): A green play button icon and the text "Running".
- PEERS** (top right): A group of people icon and the number "1".
- BLOCKS** (top right): A cube icon and the number "1".
- QUEUED TXNS** (top right): A double-headed arrow icon and the number "0".
- TRANSACTIONS/MIN** (bottom right): A line graph showing transaction volume over time.
- BLOCKS/MIN** (bottom left): A line graph showing block creation rate over time.
- NODE INFO** (center): A table with the following data:

Field	Value
ID	17d5b2b71e99bdc0b07b7c59c3f8570ed17a67482d995a23de1898d3cac214d
Node URL	enode://61a37450e763814b435377d949720a5aa82d98cd07e4656ecff9097f4bdd48c32f9...
Rpc URL	http://localhost:8102
Node Name	Geth/cakeshop/v1.8.18-stable-99f7fd67(quorum-v2.3.0)/linux-amd64/go1.11.13
Node IP	
Latest Block	1

2. Go to "NODE INFO" and get the status and the number of blocks created in this blockchain
3. On the menu on the left, click on the "SANDBOX"

The screenshot shows the Sandbox interface with the following components:

- Contract Editor** (left): A text area containing Solidity code for a voting contract.
- Choose Contract** (top right): A dropdown menu to select a contract.
- Accounts** (top right): A table showing account balances:

Account Address	Balance
0x2e219248f44546d966...	1000000000.00
0xcd5b17da5ad176905c...	100.00
0x50bb02281de5f00cc1f...	100.00
- Contract State** (bottom right): A section for viewing the contract's state.
- Paper Tape** (bottom right): A section for viewing the contract's paper tape.
- Transact** (bottom right): A button to execute a transaction.

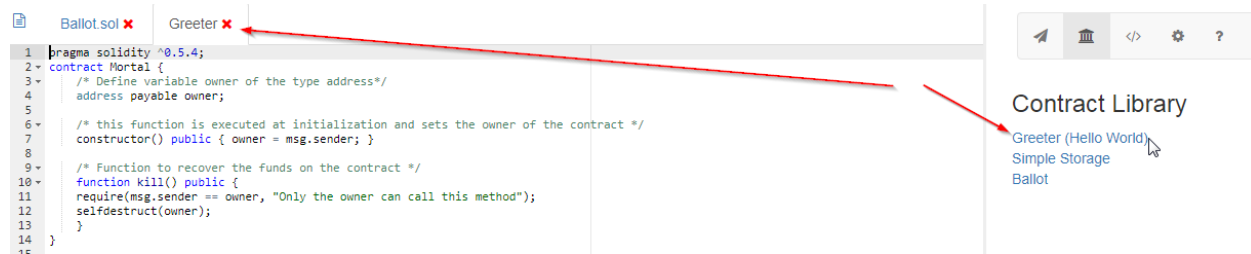
4. Click on the "Contract Library"

The screenshot shows the Contract Library interface with the following components:

- Contract Library** (top center): A button with a red arrow pointing to it.
- Choose Contract** (top right): A dropdown menu to select a contract.
- From Deployed Contracts:** (bottom): A section for viewing contracts deployed to the blockchain.

- a.

5. From the Library, please select “Greeter (Hello World):



a.

6. Make sure to review and understand what is going on in the code! Ask your instructor if you have any questions

```
pragma solidity ^0.5.4;
contract Mortal {
    /* Define variable owner of the type address*/
    address payable owner;

    /* this function is executed at initialization and sets the owner of the contract */
    constructor() public { owner = msg.sender; }

    /* Function to recover the funds on the contract */
    function kill() public {
        require(msg.sender == owner, "Only the owner can call this method");
        selfdestruct(owner);
    }
}

contract Greeter is Mortal {
    /* define variable greeting of the type string */
    string greeting;

    /* this runs when the contract is executed */
    constructor (string memory _greeting) public {
        greeting = _greeting;
    }

    /* main function */
    function greet() public view returns (string memory) {
        return greeting;
    }
}
```

a.

7. From the right side of the screen, “Choose Contract Or Deploy From Editor” and select Greeter and DEPLOY

Choose Contract

From Deployed Contracts:

Or Deploy From Editor:

Greeter

Private For

Select...

_greeting (string)

Deploy

WHY ARE THERE TWO OPTIONS IN THE DROP DOWN?

- Once you deploy, it will show you an error. Please follow the “Paper Tape” and ensure that it is indeed deployed and jot down the Address:

52.91.220.41:8080 says
ERROR: Server Error

OK

From Deployed Contracts:

Or Deploy From Editor:

Greeter

Private For

Select...

_greeting (string)

Deploy

Or Enter Address:

0xd2ed6fec3da36a0c384512f4c5a3f182e76eb686

Accounts

0x2e219248f44546d966...	1000000000.00
0xcd5b17da5ad176905c...	100.00
0x50bb02281de5f00cc1f...	100.00

Contract State

Paper Tape

[deploy] Contract 'Greeter'	06:37:39 AM
Contract 'Greeter' deployed at 0xd2ed6fec	06:37:39 AM
Waiting for contract to be registered	06:37:39 AM

9. Go back to: <http://<IP>:8080/> and choose Chain Explorer and ensure that your smart contract compiled and deployed.