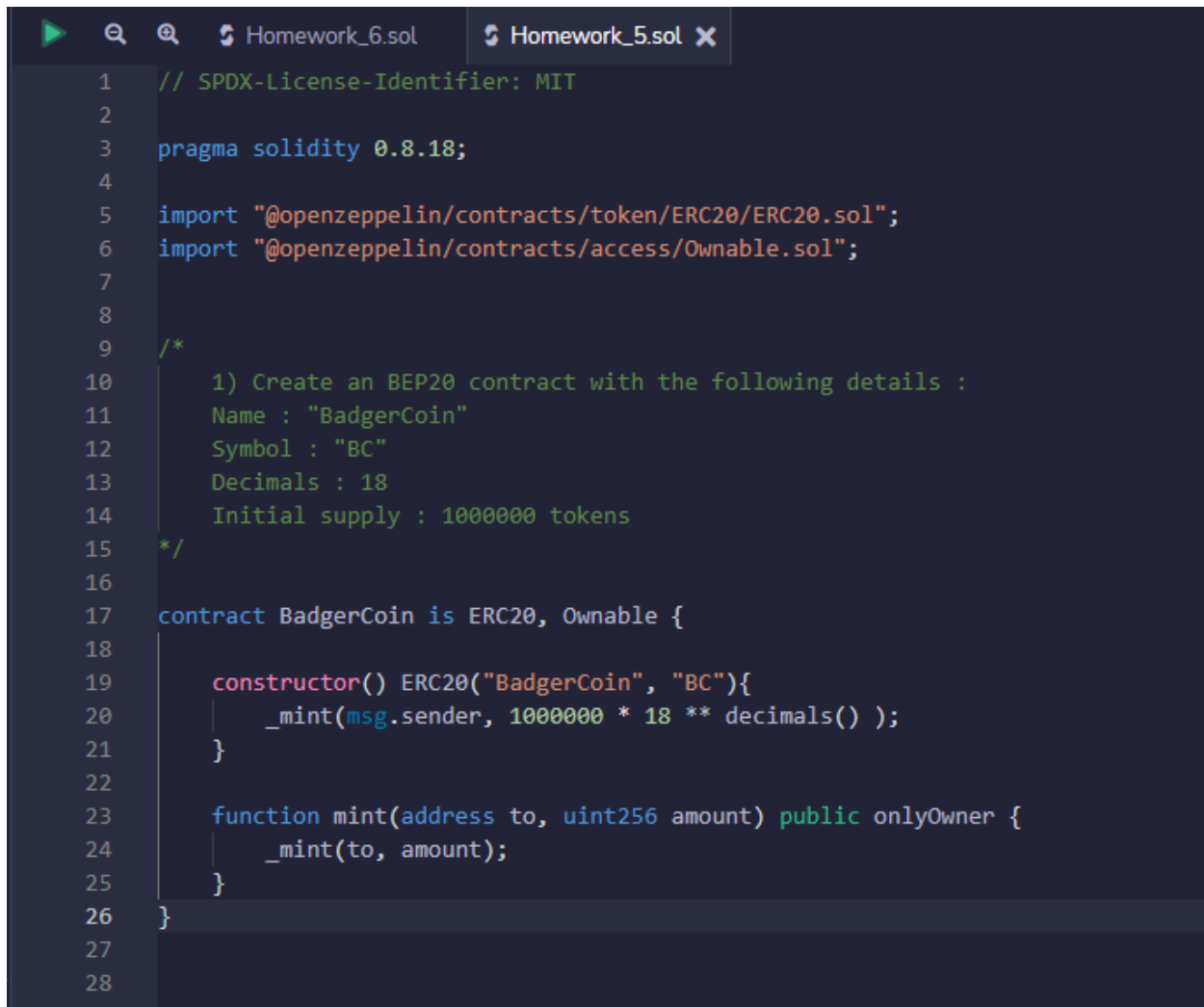


Jonathan Torres – HOMEWORK 5

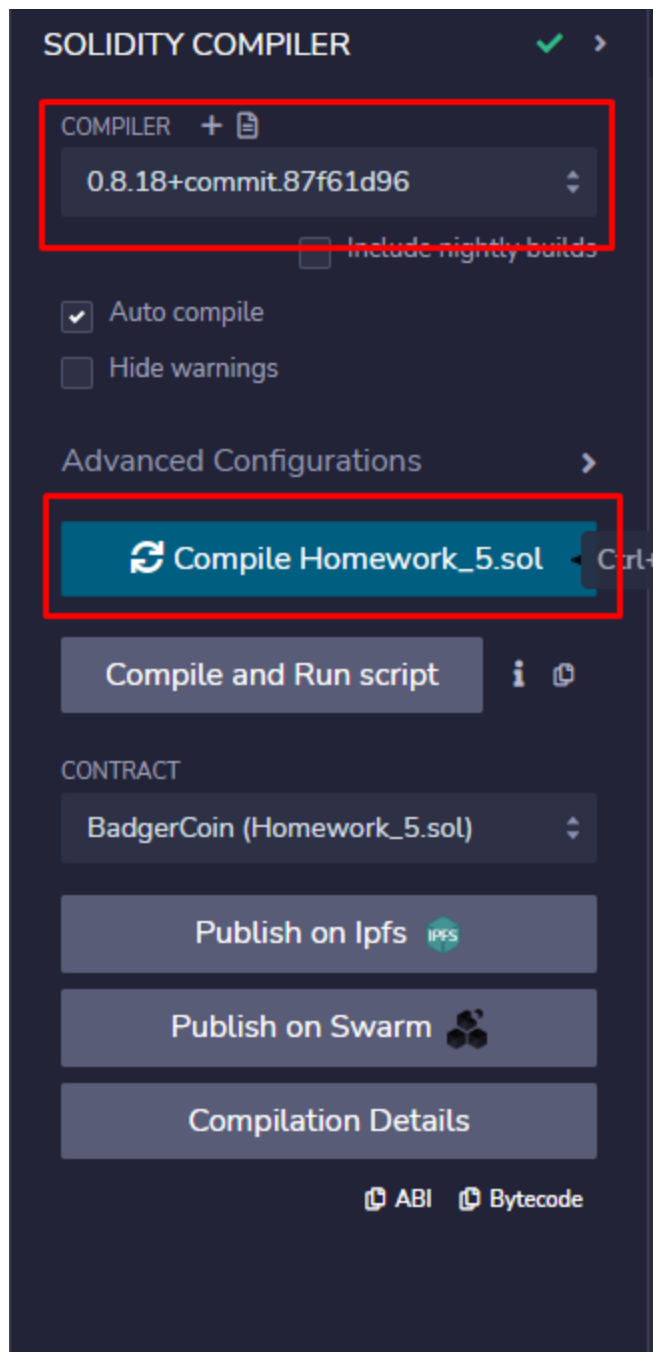
BNB ZERO TO HERO BOOTCAMP – MARCH/APRIL

We have this contract in Remix IDLE.



```
1 // SPDX-License-Identifier: MIT
2
3 pragma solidity 0.8.18;
4
5 import "@openzeppelin/contracts/token/ERC20/ERC20.sol";
6 import "@openzeppelin/contracts/access/Ownable.sol";
7
8
9 /*
10  1) Create an BEP20 contract with the following details :
11  Name : "BadgerCoin"
12  Symbol : "BC"
13  Decimals : 18
14  Initial supply : 1000000 tokens
15 */
16
17 contract BadgerCoin is ERC20, Ownable {
18
19     constructor() ERC20("BadgerCoin", "BC"){
20         _mint(msg.sender, 1000000 * 10 ** decimals());
21     }
22
23     function mint(address to, uint256 amount) public onlyOwner {
24         _mint(to, amount);
25     }
26 }
27
28
```

Now, we need to compile this smart contract, so I need to configure compiler is 0.8.18. Then click at Compiler your script.



Now for deployment you must use Metamask Inject in order to test your smart contract. But before, you need to connect to Testnet network at your metamask.

Redes

Agregar una red

🔍 Buscar una red agregada anteriormente

🔱 Red principal de Ethereum 🔒

✓ S **Smart Chain - Testnet**

Redes de prueba

G Red de prueba Goerli 🔒

S Red de prueba Sepolia 🔒

Nombre de la red

Smart Chain - Testnet

Nueva dirección URL de RPC

<https://data-seed-prebsc-1-s1.binance.org:8545/>

Identificador de cadena ⓘ

97

Símbolo de moneda

BNB

Dirección URL del explorador de bloques (Opcional)


<https://testnet.bscscan.com>

Cancelar

Guardar

When you click the injector MetaMask, your extension show ups a Pop-Up with confirm you transaction.

DEPLOY & RUN TRANSACTIONS ✓ >

ENVIRONMENT 

Injected Provider - MetaMask

Injected Provider - MetaMask

Remix VM (Merge)

Remix VM (London)

Remix VM (Berlin)

Remix VM - Mainnet fork

Remix VM - Sepolia fork

Remix VM - Goerli fork

Remix VM - Custom fork

Custom - External Http Provider

Dev - Hardhat Provider

Dev - Ganache Provider

Dev - Foundry Provider

L2 - Optimism Provider

L2 - Arbitrum One Provider

Wallet Connect

Transactions recorded 0 ⓘ >

Deployed Contracts

Currently you have no contract instances to interact with.

Smart Chain - Testnet



Account 1



Contrato nuevo

https://remix.ethereum.org

IMPLEMENTACIÓN DE CONTRATO

\$0.00

DETALLES DATOS

EDITAR

Tarifa estimada de gas



\$4.80 **0.015131 BNB**

Sitio sugerido

Tarifa máxima: 0.0151306 BNB

Total

\$4.80 **0.0151306 BNB**

Cantidad + tarifa de gas

Cantidad máxima: 0.0151306 BNB

Rechazar

Confirmar

Implementación de contrato ✕

Estado
Confirmado

[Ver en el explorador de bloques](#)
[Copiar id. de transacción](#)

De

 0x1A1...25C4



Para
Contrato nuevo

Transacción

Mientras tanto	3
Importe	-0 BNB
Límite De Gas (Unidades)	1403099
Gas Usado (Unidades)	1403099
Precio del gas	10
Total	0.01403099 BNB \$4.36 USD

+ registro de actividad

+ Transaction data

Now click on **Ver en el explorador de bloques**

Transaction Details

Overview

Logs (2)

[This is a Bsc Testnet transaction only]

Transaction Hash:

0x3ffb3b2b57e47afab4f97cb3a49a379af9299bd6e38bb486c9587eea497e09bd

Status:

Success

Block:

28094217 2 Block Confirmations

Timestamp:

9 secs ago (Mar-16-2023 12:42:05 PM +UTC)

From:

0x1a12888742a81748a2f338249526157eaeB925C4

To:

[Contract 0x2bc7a2c17bb5452ca26f36e9e6fe38c1af3f39cd Created]

Value:

0 BNB (\$0.00)

Transaction Fee:

0.01403099 BNB (\$4.36)

Gas Price:

0.00000001 BNB (10 Gwei)

Click to see More

Then click on the Contract **Address**

Address 0x1A12888742a81748a2F338249526157eaeB925C4

Overview

More Info

Balance:

0.06046055 BNB

Token:

\$0.00

My Name Tag:

Not Available

Transactions

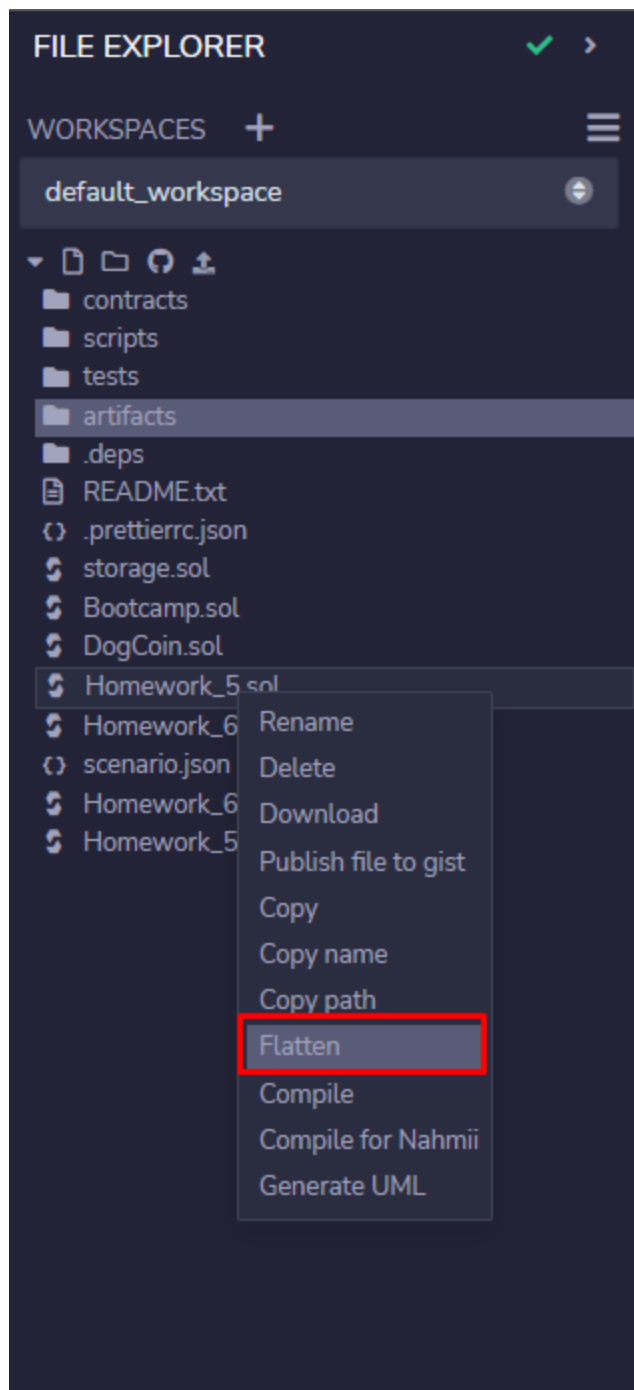
BEP-20 Token Txns

Latest 4 from a total of 4 transactions

Txn Hash	Method	Block	Age	From	To	Value	[Txn Fee]
0xd850253aacc86a1e23...	0x6080806040	28093205	1 min ago	0x1a12888742a81748a2...	OUT Contract Creation	0 BNB	0.0151306
0x36f0042d162268e173...	0x6080806040	28045147	1 day 16 hrs ago	0x1a12888742a81748a2...	OUT Contract Creation	0 BNB	0.02148009
0x731e296b588d7f37e4...	0x6080806040	28017044	2 days 15 hrs ago	0x1a12888742a81748a2...	OUT Create: BadgerCoin	0 BNB	0.00292876
0x400dd8e942781586fd...	Transfer	28017019	2 days 15 hrs ago	0xaa25aa7a19f9c426e0...	IN 0x1a12888742a81748a2...	0.1 BNB	0.000378

[Download CSV Export]

Go to the tab Contract, and then click **Verify and Push**



Now REMIX IDLE, gives you your smart_contract with FLATTEN, that you need to copy and put in the

HomeBlockchainValidatorsTokensResourcesMiscVerify & Publish Contract Source Code

Compiler Type: SINGLE FILE / CONCATENATED METHOD

Info: A simple and structured interface for verifying smart contracts that fit in a single file

Contract Source Code

1. If the contract compiles correctly at [REMIX](#), it should also compile correctly here.

2. We have limited support for verifying contracts created by another contract and there is a timeout of up to 45 seconds for each contract compiled.

3. For programatic contract verification, check out the [Contract API Endpoint](#)

Contract Address

0xa567c62e06284aa5a821b06d9e0be1024f6ca6c4

Compiler

v0.8.18+commit.87f61d96

Optimization

No

Enter the Solidity Contract Code below *

Fetch from Gist

// SPDX-License-Identifier: MIT

pragma solidity 0.8.18;

import "@openzeppelin/contracts/token/ERC20/ERC20.sol";
import "@openzeppelin/contracts/access/Ownable.sol";


/*
1) Create an [BEP20](#) contract with the following details :
Name: "Bep20Coin"*/


Constructor Arguments [ABI-encoded](#) (for contracts that were created with constructor parameters)

For additional information on Constructor Arguments [see Our KB Entry](#)




And resolve the CAPTCHA and Verify and Publish.

FINISHED your contract is deployed :D


BscScan
 A product of Etherscan

All Filters Search by Address / Txn Hash / Block / Token / Domain Name 

BSC Testnet Network Home Blockchain Validators Tokens Resources Misc Testnet


Contract 0x2BC7A2c17bb5452CA26F36E9e6Fe38C1af3F39Cd  


Contract Overview

Balance: 0 BNB



More Info


My Name Tag: Not Available

Contract Creator: 0x1a12888742a81748a2... at txn 0x3ffb3b2b57e47afab4f9...

Token Tracker:  BadgerCoin (BC)

Transactions BEP-20 Token Txns **Contract** Events

Code Read Contract Write Contract ? Search Source Code  




 **Contract Source Code Verified** (Exact Match)

Contract Name: **BadgerCoin**

Optimization Enabled: **No** with 200 runs

Compiler Version: **v0.8.18+commit.87f61d96**

Other Settings: **default** evmVersion, [MIT license](#)

 **Contract Source Code** (Solidity)  


```



1  /**
2   *Submitted for verification at BscScan.com on 2023-03-16
3   */
4
5   // File: @openzeppelin/contracts/utils/Context.sol
6
7   // OpenZeppelin Contracts v4.4.1 (utils/Context.sol)
8
9   pragma solidity ^0.8.0;
10
11  /**
12   * @dev Provides information about the current execution context, including the
13   * sender of the transaction and its data. While these are generally available
14   * via msg.sender and msg.data, they should not be accessed in such a direct
15   * manner, since when dealing with meta-transactions the account sending and
16   */
  
```

You can interact your smart contract with, remember you need two address and amount.

Transactions BEP-20 Token Txns **Contract** Events

Code **Read Contract** Write Contract

 **Read Contract Information** [\[Expand all\]](#) [\[Reset\]](#)



1. allowance  

owner (address)

spender (address)

Query

↳ uint256

2. balanceOf  

account (address)

Query

↳ uint256