Intro to Blockchains

Assignment 3

Devdatt N(200010012)

We have copied the Auction.sol from the last assignment to the Auction.sol in the zip first, and now we will execute the various commands as asked in the assignment.

After changing some code to be compatible with the compiler version, we run **truffle compile** and get this successful message:

After running **truffle develop**:

This has returned a successful message as well.

Now, we run **truffle migrate -- reset**

```
Starting migrations...
=====================
> Network name:    'development'
> Network id:      5777
> Block gas limit: 6721975 (0x6691b7)


1_initial_migration.js
=====================

   Deploying 'Migrations'
   ---------------------
   > transaction hash:    0x97282be1f34569ccebc59be99bd46b16809fe29fb01b929c57e72322c27ce3a1
   > Blocks: 0            Seconds: 0
   > contract address:    0xABB07D5aef3da1893Bc6C1b1E37F90cB7303B4a5
   > block number:        1
   > block timestamp:     1679940102
   > account:             0x1A844805ebB29cd5e7BDb6774F2FA2d0aDDa52C8
   > balance:             99.999235437625
   > gas used:            226537 (0x374e9)
   > gas price:           3.375 gwei
   > value sent:          0 ETH
   > total cost:          0.000764562375 ETH
   > block number:        3
   > block timestamp:     1679940102
   > account:             0x1A844805ebB29cd5e7BDb6774F2FA2d0aDDa52C8
   > balance:             99.997128885979003958
   > gas used:            615784 (0x96568)
   > gas price:           3.177688086 gwei
   > value sent:          0 ETH
   > total cost:          0.001956769480349424 ETH

   > Saving migration to chain.
   > Saving artifacts
   -------------------------------------
   > Total cost:     0.001956769480349424 ETH

Summary
=======
> Total deployments:   2
> Final cost:          0.002721331855349424 ETH


devblixt@devblixt:/mnt/c/Users/devbl/Documents/Introduction to Blockchains/Assignment 3/Auction$
```

The migrations are successful.

After running **truffle test** for given two sample test cases:

```
Compiling your contracts...
===========================
> Compiling .\contracts\Auction.sol
> Compiling .\contracts\Migrations.sol
> Artifacts written to C:\Users\devbl\AppData\Local\Temp\test--42112-EziQIL9pUC3f
> Compiled successfully using:
   - solc: 0.5.16+commit.9c3226ce.Emscripten.clang
Warning: Both truffle-config.js and truffle.js were found. Using truffle-config.js.


  Contract: AuctionContract
    ✓ Contract deployment
    ✓ Should set bidders (120ms)


  2 passing (224ms)

PS C:\Users\devbl\Documents\Introduction to Blockchains\Assignment 3\Auction>
```

We can see that they work fine, the test cases are passing.

Now, after adding code for third test case:

```
Contract: AuctionContract
  ✓ Contract deployment
  ✓ Should set bidders (134ms)
  ✓ Should NOT allow to bid more than remaining tokens (417ms)


3 passing (657ms)

○ PS C:\Users\devbl\Documents\Introduction to Blockchains\Assignment 3\Auction>
```

Fourth:

```
Contract: AuctionContract
  ✓ Contract deployment
  ✓ Should set bidders (136ms)
  ✓ Should NOT allow to bid more than remaining tokens (298ms)
  ✓ Should NOT allow non owner to reveal winners


4 passing (606ms)

○ PS C:\Users\devbl\Documents\Introduction to Blockchains\Assignment 3\Auction>
```

Fifth:

```
     - solc: 0.5.16+commit.9c3226ce.Emscripten.clang
  Warning: Both truffle-config.js and truffle.js were found. Using truffle-config.js.


  Contract: AuctionContract
    ✓ Contract deployment
    ✓ Should set bidders (188ms)
    ✓ Should NOT allow to bid more than remaining tokens (236ms)
    ✓ Should NOT allow non owner to reveal winners
    ✓ Should set winners (1632ms)


  5 passing (2s)

○ PS C:\Users\devbl\Documents\Introduction to Blockchains\Assignment 3\Auction>
```

We can see that all the test cases work perfectly, and hence our Auction.sol smart contract is working fine.