

Contracts Design Patterns & Truffle

READING TASK | 8

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* Contract Design Patterns: In software engineering, a design pattern is a general repeatable solution to a commonly occurring problem in software design. A design pattern isn't a finished design that can be transformed directly into code. It is a description or template for how to solve a problem that can be used in many different situations.
* Contract Self Destruction Pattern
  + The lifecycle of a contract
  + Why, How, Implications of self-destruction
* Factory Contract Pattern
* Name Registry Pattern
* Mapping Iterator Pattern
* Sending ethers from the contract: Withdrawal pattern

For details of above topics, go through the below links:

* <https://medium.com/@stan_white/selfdestruct-pattern-in-solidity-smart-contracts-636e1c7b184e>
* <https://www.linkedin.com/pulse/intothesolidity-self-destruction-pattern-devraj-singh-rawat?trk=read_related_article-card_title>
* <https://i6mi6.medium.com/solidty-smart-contracts-design-patterns-ecfa3b1e9784>
* <https://betterprogramming.pub/learn-solidity-the-factory-pattern-75d11c3e7d29>
* <https://research.csiro.au/blockchainpatterns/general-patterns/contract-structural-patterns/>

Truffle

* Tools: Using Blockchain Simulator Ganache
  + <https://trufflesuite.com/ganache/>
* Tools: Visual Studio for Solidity & Truffle framework
  + Visual studio code (VSC)
    - Install
  + Solidity extension for the VSC
    - Search in Extensions and install
  + Truffle framework
    - <https://trufflesuite.com/truffle/>
  + Truffle Boxes
    - <https://trufflesuite.com/boxes/index.html>
* Setting up the Truffle project
* Coding and Testing Smart Contracts
* Deployment | Migration of Contracts
* The deployment process for contracts
* Describes the configuration for migrations/deployments
* Walkthrough of the truffle commands used for deployment
* <https://trufflesuite.com/docs/truffle/quickstart.html>
  + Quick Start
  + Getting Started
  + Testing