Token Swaps:
A technical and practical introduction to the economics of the blockchain

In this 2-day course we will design the flow of a "token swap", also known as "ICO" or "Initial Coin Offering".

With the recent improvements in blockchain technology, there are more and more use cases and businesses will be able to utilize the fundamental benefits that it can provide. Blockchain applications provide unprecedented accountability, transparency and trust.

One of the most recent "killer app" on the blockchain is poised to disrupt an unexpected industry: VCs and Angel Investors. Token swaps or ICOs are the direct evolution of crowd fundings, fully utilising the blockchain's ability to remove 3rd parties, and to provide accountability and transparency in processes.

Objective

A. Knowledge and Understanding (Theory Component)

At the end of this course, participants should be able to:
- Describe the basics of Blockchain Systems
- Explain the key concepts of Smart Contracts, their benefits and limitations
- Understand and explain the process of token swaps

B. Key Skills (Practical Component)

At the end of this course, participants should be able to:
- Interact with smart contracts
- Deploy their own smart contract
- Create and execute transactions

Topics

Time	Agenda
Day 1	
09:00 – 09:15	2-Day Course Overview

09:15 – 10:45	Basics:
	    - What is a token swap?
	    - Why is it so popular?
	    - Legal
	    - Parts:
	        1. Presale
	        2. Public Sale
	        3. Utility

10:45 – 11:00	Break

11:00 – 12:30	Technology Basics:
	    - Programming the world's Slowest Computer
	    - Tools of the Trade
	    - Example codes
	    - Development: Code, Compile, Deploy

12:30 – 14:00	Lunch

14:00 – 15:30	Token Sale Details
	    - The benefit of standards: ERC20
	    - What tokens to accept
	    - How to Train your Whale – Presale tactics
	    - Public sale strategies – how to design a fair sale

15:30 – 15:45	Break
15:45 – 17:00	Overview of the most important token sales so far
17:00 – 17:30	Assessment
Day 2	
09:00 – 09:15	Overview of the Day
09:15 – 10:45	Utilizing Tokens Popular use cases Oracles – handling external data Tokenizing Fiat currencies External auditors
10:45 – 11:00	Break

11:00 – 12:30	Process overview:
	    - Design
	    - Implement
	    - Execute
	    - Post-event tasks

12:30 – 14:00	Lunch
14:00 – 17:00	Class Exercise: token swap on the testnet Design a use case Register your domain on ethereum Deploy a multisig wallet Fund and retrieve the tokens
17:00 – 17:30	Assessment

Requirements

- Attendees should have at least a basic understanding of Blockchain

- Attendees have to bring along their own laptop

- Optional: Download and install Mist, and sync the ethereum blockchain (https://github.com/ethereum/mist/releases)

Duration: 2 days

Venue: Singapore University of Social Sciences (formerly known as SIM University)

Minimum number to run: 25 participants

Certificate of participation is awarded upon 75% attendance for the course
(As the university was renamed recently on 17 March 2017, we will be reprinting our course certificates to incorporate the new name and logo. As such, you will receive your certificate at a later date.)

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Trainer's Profile

Andras is an entrepreneur and investor living in Singapore. He built the technology behind viki.com, Singapore's largest startup exit so far.

He has been involved in blockchain development since 2013. He founded and contributed to several projects in the space. Currently he is working on yojee.com, a collaborative economy / logistics company, utilizing Ethereum.