

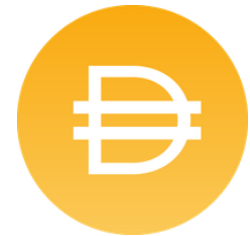
IOT301 – Building Blockchain-Based Decentralized Applications using Ethereum



One of the hottest technologies of late is no doubt Blockchain. But what is a blockchain? A blockchain is a digital transaction of records that's arranged in chunks of data called blocks. These blocks then link with one another through a cryptographic validation known as a hashing function. Linked together, these blocks form an unbroken chain — a blockchain. A blockchain is programmed to record not just financial transactions but virtually everything of value. In this course, you will learn the fundamentals of Blockchain and how it works. You will have a solid understanding of blockchain technology by building one yourself using the Python programming language. Once you have a good foundation in how blockchain works, you will use a specific implementation - the Ethereum network. The Ethereum network supports an execution environment known as Smart Contracts, where developers can use them to store digital currencies or assets on the blockchain. You will see some real-life use of Smart Contracts, as well as learn how to create tokens, something that is getting a lot of investors' attention lately. At the end of this workshop, you will be on your way to your first ICO.

Topics

- Introduction to Cryptocurrencies
- Technologies behind Cryptocurrencies
- Getting Started with Ethereum
 - Using geth - CLI for running an Ethereum node
 - Creating Private Ethereum Blockchain
- Smart Contracts and Decentralized Applications (DApp)
 - Use Cases for Smart Contracts
 - Writing Smart Contracts
 - Learning Solidity
 - Compiling Smart Contracts
 - Deploying Smart Contracts
 - Using Smart Contracts using Web3
 - Invoking a Smart Contract
 - Sending Ether to Contracts
 - Killing Smart Contracts
- Creating Tokens
 - What are Tokens?
 - Developing Token Smart Contracts
 - Deploying Token Smart Contracts
 - Selling Tokens Through Crowdsourcing
 - Getting Ready for ICO
 - Accepting Tokens in Smart Contracts
- Creating Non-Fungible Tokens (NFTs)
 - What is an NFT?
 - Creating an NFT Token contract
- DeFi (Decentralized Finance)
 - What is DeFi
 - Stablecoins





Prerequisites

- Basic programming experience
- Understanding of basic object-oriented programming concepts

Hardware

- Mac / Windows laptop

Software

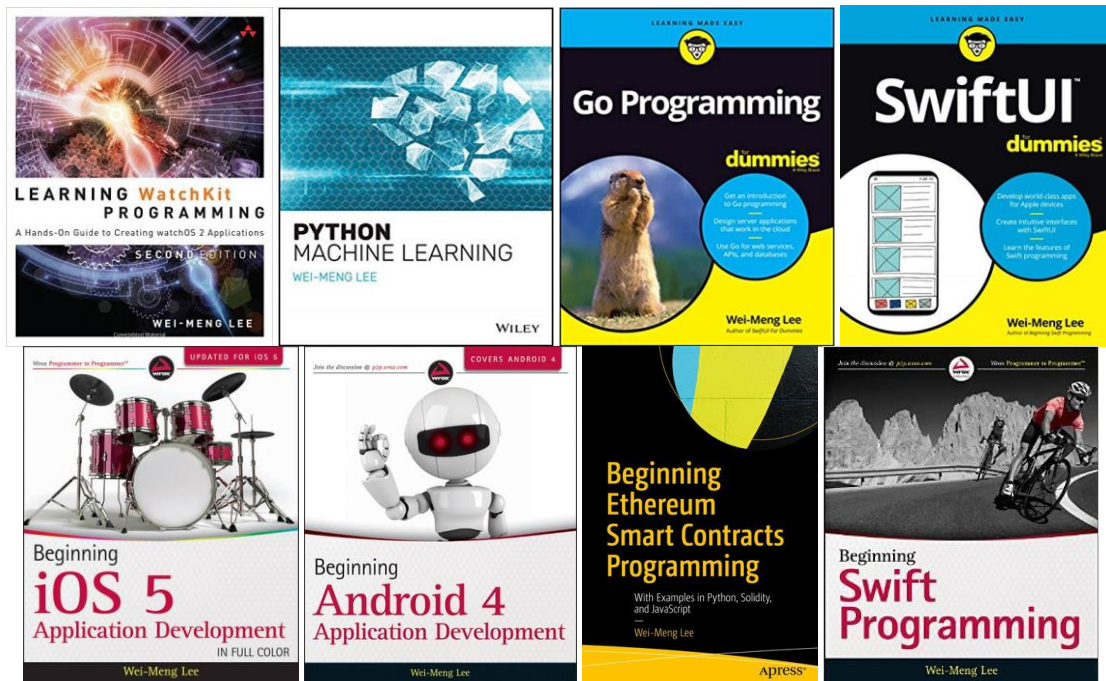
- To be installed during class

About Wei-Meng Lee



Wei-Meng Lee is a technologist and founder of Developer Learning Solutions (<http://www.learn2develop.net>), a technology company specializing in hands-on training on the latest mobile technologies. Wei-Meng has many years of training experiences and his training courses place special emphasis on the learning-by-doing approach. His hands-on approach to learning programming makes understanding the subject much easier than reading books, tutorials, and documentations. His name regularly appears in online and print publications such as DevX.com, MobiForge.com, and CoDe Magazine.

Books by Wei-Meng Lee





Course Application Form

Please email a signed copy to weimenglee@learn2develop.net

Billing Information

Name			
Designation			
Company			
Mailing Address			
Office Tel	Mobile	Fax	
Email			

Course Title: _____ Date: _____

Participant Information	Amount
Name: Email:	S\$
Name: Email:	S\$
Grand Total S\$	

Important Note

- Developer Learning Solutions reserves the right to cancel or reschedule the course.
- You can withdraw from the course provided you inform us **one (1) month** in advance before the commencement of the class. There will be no refund after this period and the full course fee will be billed.
- No-show policy: If a participant did not turn up for the course he signed up for, he will be billed 100% of the course fee.

I understand that participants have to bring their notebook computer for the course (for iOS related courses, the notebook must be a Mac).

Authorized Signature & Company Stamp

Name & Designation

Date