**INTRODUCTION**

**Welcome!**

Hello and welcome to the Ardor Developers’ Guide 2019 edition. This is a platform design to help you learn the Blockchain Basics and Ardor Blockchain Development. It is designed to give you the knowledge you need to become an international blockchain engineer. It is a course comprising of videos, links to substantial articles by key Ardor developers and Blockchain experts.

**Course Content**

This course is designed to suit both entry level developers and experienced developers but it is advices that you should have at least one-year experience in order to quickly understand the subject matter of becoming an Ardor Blockchain developer. Below is the course content.

**module 1: brief review of computer science concepts**

1. **Computers and the Internet.**
2. Computers and Servers.
3. Internet Protocols and Network Connections.
4. Databases.
5. **Computer Programing and Algorithms**
6. **Opensource Software.**

**Module 2: a review of distributed ledger technology platforms**

1. **Distributed Ledger Technology**
2. Blockchain Basics.
3. Introduction to Hyperledger and Coda framework.
4. **Consensus Mechanism**
5. Consensus Mechanisms
6. Blockchain challenges
7. Popular Blockchain Attacks
8. **Blockchain Primitives**
9. Cryptographic Hash Function
10. Public Key Cryptography and Digital Signature.
11. Merkle Tree
12. Nodes
13. Smart Contracts
14. Blockchain Forks

**module 3 ardor blockchain basice and its architecture**

1. **Ardor Blockchain Structure.**
2. Child-chain Architecture.
3. Blockchain as a Service.
4. Similarities and Difference.
5. **Accounts, Transactions and fees.**
6. Economic Incentives (Bundling, Forging, network cost etc.)
7. Brief overview of Ardor Features.
8. **Ardor Node Setup**
   * 1. Download and Installation (for both Mainnet and Testnet)
     2. Ardor Account and account funding.
9. **Introduction to the Lightweight Contract**
   * 1. Development Environment Setup (IntelliJ, JDK8, Ardor Client)
     2. Contract Configurations
     3. Contract Development and Deployment
10. **Forging and bundling with a Raspberry Pi.**
    * 1. Selecting the necessary Hardware.
      2. Setting up the Raspberry Pi and its accessories.
      3. Wi-Fi Configuration Settings.
11. **Decentralized Application Developments**
    * 1. Brief discussion on the Ardor API documentations.
12. **Ardor Tools and Applications**
    * 1. Ardor Blockchain Explorers.
      2. Ardor Forging Pools.
13. **Advanced Topic**
14. **Brief discussion on how to actively get involved on the Ardor Project**

**Contact Information**

You can quickly talk to us through email: [info@jelafrica.com](mailto:info@jelafrica.com) or [etienne@jelafrica.com](mailto:etienne@jelafrica.com)

Twitter: @JeluridaAfrica.