

INSTRUCTOR LED WEBINAR - SYLLABUS

CORDA DEVELOPER

Duration:	16 Hours
Delivery:	Live Instructor Led Webinar - 16 Hours
Instructor(s):	TBD
Office Hours:	10:00 AM to 6:00 PM Eastern Standard Time
Email:	studentsupport@blockchainhub360.com
Prerequisites:	Minimum 1 year software development experience. JVM languages and Javascript; Corda is written using Kotlin with targets JVM and Javascript.

Continuing Education Units: 1.6

Certification Exam: Certified Corda Developer
Certification Body: R3 Corda

Course Overview:

The Corda Developer program is for developers who want to learn about R3's Corda blockchain and to develop dApps, or CorDapp as it is known with the R3 developer community. Corda is an open-source distributed ledger platform designed to record, manage and automate legal agreements between businesses. It offers a unique response to the privacy and scalability challenges facing decentralized applications. Corda is the culmination of a collaborative effort with over 70 of the world's largest financial institutions. Corda development capabilities command high wages within the financial sector.

Course Composition:

Instructor Led Webinar: Corda Developer Modules 1 - 4

Learning Objectives:

- Recognize the overall architecture, key concepts and components of Corda
- Familiarize and establish development environment for running and writing CorDapps
- Create smart contracts using Corda libraries, methods, Corda data types, and syntax
- Building and testing flows enabling Corda users to automate business logic
- Deploy, run and modify financial grade CorDapps

Demonstration of Learning Outcomes:

At the conclusion of the Corda Developer course developers have the ability to deploy ledger technology, smart contracts, and working dApps (distributed application). Students completing the Corda Developer course are prepared to sit for R3's Corda Developer Certification exam.

Evaluation:

Evaluation is based on participation and a final exam.

Weighted:

50% participation

50% on the final grade

80% overall grade is required in order to receive a Certificate of Completion.

Grading Policy:

Pass or Fail. No Credit (NC).

Attendance Requirements:

Students are expected to attend at least 70% of Instructor Led Webinar Presentations. Should a student miss any portion of the live instruction instructor led webinars are recorded and attached to the learning management. A Certificate of Completion will not be issued if attendance requirements are not met.

Student conduct and etiquette:

Students will be expected to be courteous in their conduct and communications to the instructor and classmates at all times whether such conduct or communication is in person, by telephone or electronic communications.

Behavior that persistently or grossly interferes with instructor or other student activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. The instructor may require a student responsible for disruptive behavior to leave the learning environment pending discussion and resolution of the problem and may report a disruptive student to the Student Affairs Office

Note: Disruptions, or any other distraction in the learning environment may result in a failing grade.

Course Evaluations

Course evaluations and program surveys are important components of the educational process. Students are encouraged to complete the student course evaluation form issued at the conclusion of the course. The evaluation is anonymous.

Computer/Information Literacy Expectations for Students enrolled in this class

Students in this class are expected to:

1. Use a word processing program for writing assignments (e.g., Microsoft Word)
2. Be able to access assigned websites through the internet
3. Have access to PC or mobile device for participation in course content

Course Module Overview:

CORDA DEVELOPER

Module 1: Intro to Corda

- Understand the overall architecture, key concepts, and components of Corda
- Discussion includes cryptology and hashing.
- Learn how to set up your development environment for running and writing CorDapps
- Analysis of the development environment, the build process and other sections of development.
- Understand how to model shared facts and agreements on the ledger.
- Discussion includes modeling participants, or parties and actions.

Module 2: Contracts

- Create smart contracts controlling the evolution of the ledger.
- Discussion includes Corda libraries, methods, Corda data Types, syntax, and other development items.

Transactions

- Learn about the transaction lifecycle, and how transactions are used to propose ledger updates.
- Elements of a transaction, transaction methods in the contract.
- The discussion also includes transaction builders, Corda commands, signatures and other items.

Flows

- Use our flow testing framework to develop flows allowing Corda users to automate common business logic.
- Building Flows of different types, Flow methods and objects. Flow annotations are also discussed.

Module 3: Corda Node and Network

- Learn how the node is designed, what it can do, and what it can't. Learn what services/APIs the node offers.
- Node Internals, Node types, Node Services
- Understand how a Corda network is structured and how data flows between nodes on the network.
- Corda Network Design and Communication, running nodes and the command line.
- Corda API

Module 4: Running Corda and CorDapp Workshop

- Deploying CorDapp Examples
- Running CorDapp Examples.
- Modifying and running CorDapp Examples.

Corda Node Test Network.

- Bring up a Corda Node in the Test Network
- Exploring the Corda node.
- Deploying Examples to the new Test Network Node.
- Running Examples on the Test Network Node.

Module 5: Building new CorDapps on the new Corda Node.

- Build new 4 CorDapps on the new Corda Node from “scratch”.
- Develop the source code, compile with Gradle.
- Deploy the new CorDapps to the Test Network
- Run the CorDapps on the Corda test network.

Final Exam