Learning module 0: Introduction to the course and to the DLT world

Description

Learning Module 0 is divided into two logical parts.

The first part provides an introduction to the DLT4All course, identifying different target audiences and parts of the curriculum that are addressed to each of them, and presenting an overview of the available certification options.

The second part gives an introduction to Blockchain technologies both from an historical perspective and from a technical point of view. An overview of the structure of Blockchains is presented and core concepts, which will be developed in the following modules of the course, are introduced. A taxonomy of Blockchains based on their reading and writing permissions is given, and the concepts of cryptocurrency, smart contract and decentralized application are introduced. An overview of blockchain use cases concludes the Learning Module.

Learning Objectives

- To present the structure and content of the DLT4All course
- To define the different target audiences of the DLT4All course
- To describe the certification options available to the participants
- To give an historical overview of the development of Blockchain technology
- To give an overview of the technological components of a blockchain-based system
- To present a characterization of Blockchains based on the user's reading/writing permissions
- To describe the concepts of cryptocurrency, Smart Contract and decentralized application in the context of a blockchain-based system
- To present a set of relevant use cases of blockchain-based systems

Learning Outcomes

- **Recall** the DLT4All course structure
- **Choose** which of the Target audiences they belong to
- **Understand** available certification options
- **Outline** the historical development of blockchain technologies
- **Describe** the technical components of a blockchain-based system
- **Explain** how blockchains can be classified
- **Explain** the concepts of cryptocurrency, smart contract and decentralized application
- **Name** and **describe** relevant blockchain use cases

Syllabus

1. Introduction to the DLT4ALL course
   1.1. Target audience
   1.2. Course structure
   1.3. Certification options

2. Introduction to Blockchains
   2.1. Historical overview
   2.2. Technological components of a blockchain-based system

3. Characterization of Blockchains
   3.1. Public vs Private, and Permissionless vs Permissioned

4. From Blockchains to dApps
   4.1. Cryptocurrencies
   4.2. Smart Contracts
   4.3. Decentralized applications

5. Use cases