

NFT and Blockchain for Beginners

Tokens, Ethereum concepts, marketplaces and use cases

FA-0772 · 2 days

Others

Introduction

A beginner-friendly introduction to blockchain, fungible tokens and NFTs. Explore Ethereum concepts, asset technology stacks and marketplace operations through explanations and guided demonstrations. No prior blockchain knowledge is required; the course does not promise comprehensive expertise or investment results.

Learning outcomes

- Explain blocks, ledgers, transactions and the distinction between blockchain and cryptocurrency.
- Distinguish fungible tokens and NFTs and recognise ERC-20, ERC-721 and ERC-1155.
- Describe smart contracts, decentralised applications and DAOs at an introductory level.
- Compare selected NFT platforms and storage approaches and follow a marketplace demonstration.
- Discuss digital art, fashion, games, sports, virtual worlds and collectibles as use cases.

Prerequisites

Basic computer, internet and file-handling skills; a suitable computer and internet connection. Familiarity with web development is helpful. English-language technical reading is required.

Training outline

1. Module 1 — Blockchain and Ethereum

- What is Blockchain?
- Blockchain Vs Cryptocurrency
- Blockchain Transactions
- Consensus overview: proof-of-work mining and Ethereum proof of stake
- Ethereum Virtual Machine (EVM)
- Decentralized Apps
- Decentralized Autonomous Organizations

Contrast proof-of-work mining with current Ethereum proof of stake; the EVM executes smart-contract transactions, not mining itself.

2. Module 2 — Crypto tokens

- What are Crypto Tokens?
- How does a Crypto token work?
- Broad Categories of Tokens

3. Module 3 — Token standards

- Guide to ERC Standard
- Different ERC Standards
- ERC-20 Standard
- Trading ERC-20 Tokens
- ERC-721 Standard
- Trading ERC-721 Tokens
- ERC-1155 Tokens

Transfers and marketplace operations are explained or demonstrated with test assets; learners are not required to buy tokens.

4. Module 4 — NFT foundations

- What's an NFT?
- The Internet of assets
- NFT examples

- How do NFTs work?
- What are NFTs used for?

Token ownership is a blockchain record; asset access, licence rights and use in another platform are separate questions.

5. Module 5 — Platforms and storage

- Blockchain Platforms- Ethereum
- Blockchain Platforms – Tezos
- Blockchain Platforms – Flow
- Blockchain Platforms – Cardano
- Blockchain Platforms – Wax
- Storage Platforms – IPFS
- Storage Platforms – Filecoin
- Protocols – ERC-721
- Protocols – ERC-1155
- Protocols – Other Protocols

Compare selected examples rather than attempting installation or mastery of every platform.

6. Module 6 — Marketplace operations

- Operations on NFT
- Walkthrough opensea
- Opensea Metamask account setup
- Creating a NFT
- Buying NFT
- Trading Selling (fixed price)
- Trading auction

Use a prepared demonstration and current supported marketplace interfaces. Wallet connection and transaction signing are distinct steps.

7. Module 7 — Historical and project examples

- Colored Coins
- CounterParty.io
- CryptoPunks
- CryptoKitties

- Selected NFT project examples

8. Module 8 — NFT use cases

- Digital art
- Fashion
- Gaming and Sports
- Virtual Worlds
- Collectibles