

# Blockchain Tokens



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# What are blockchain tokens?

Blockchain tokens are digital assets that are created and managed on the blockchain. They represent ownership or access rights to a variety of assets, such as cryptocurrencies, digital collectibles, or real-world assets like real estate or company shares.

# What are blockchain tokens? (contd.)

- They are used to facilitate various functionalities such payment, governance, decentralised finance (Defi), voting etc on the blockchain. They can also be used as a store of value representing assets in the real world, or internally in that blockchain as a means to facilitate transactions within that blockchain i.e gas fees

# Types of tokens

**Utility Tokens:** These tokens provide access to a product or service within a blockchain ecosystem. They are often used for crowdfunding projects through Initial Coin Offerings (ICOs).

# Types of tokens

**Security Tokens:** These tokens represent ownership of a real-world asset, such as equity in a company or debt. They are subject to securities regulations and offer investors certain rights, like dividends or voting privileges.

# Types of tokens

**Asset Tokens:** These tokens represent physical assets, like real estate or commodities. They allow fractional ownership and easier transferability of traditionally illiquid assets. E.g Gold.

# Types of tokens

**Governance Tokens:** Allow holders to vote on protocol changes (e.g., **UNI** for Uniswap)

# Difference between Coins and Tokens

## Coins

- Coins are built into the blockchain (native to its own blockchain technology).
- Coins require significant resources to create.
- A blockchain can only have one coin.
- Coins are used to facilitate internal blockchain operations such as gas fees and transactions.
- Coins are used to secure the blockchain network through mechanisms such as proof-of-work (POW) and proof-of-stake (POS).
- Examples of coins: Bitcoin (BTC), Ethereum (ETH), Starknet (STRK).

## Tokens

- Built on top of an existing blockchain.
- Relatively easy to create.
- A blockchain can have as many tokens as possible.
- Used as representation of real-life assets on the blockchain.
- Examples of tokens: USDT, USDC, DAI.



# Categories of Tokens

- Fungible tokens (ERC20)
- Non-fungible tokens (ERC721)
- Others (e.g ERC-1155 - Hybrid)

# Fungible Tokens

- Not unique
- One unit of token can be interchanged for another e.g swap one 50 dollar with another, they still have same value.
- Tokens can be subdivided into small fractions e.g eth -> gwei -> wei.
- They are often associated with utility such as payment and representation of fiat currencies on the

# Non-Fungible Tokens

- Every single token is unique
- They have properties that distinguishes them from another
- They cannot be subdivided into small fractions. - They are often associated with digital arts on the blockchain. This makes them distinguishable from each other.
- Example includes: BAYC NFTs, Cryptopunks NFTs, etc

Let's code some tokens 🚀🚀🚀

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