## What is a Centralized Exchange (CEX)? 🏦

A Centralized Exchange (CEX) is a platform managed by a central authority (a company) where users can buy, sell, and trade cryptocurrencies. Examples include Binance, Coinbase, and Kraken.

#### **Key Features of CEX:**

- User-Friendly Interface <i>: Easy to use, ideal for beginners.
- High Liquidity : Fast transactions with a large volume of trading.
- **Customer Support** \( \Cappa : Assistance available for issues and queries.
- **Fiat Integration Supports** trading between cryptocurrencies and fiat currencies.
- **Security Measures :** Strong security protocols but centralized control means vulnerability to hacks.

# What is a Decentralized Exchange (DEX)?

A Decentralized Exchange (DEX) operates without a central authority, enabling peer-to-peer trading of cryptocurrencies directly on the blockchain. Examples include Uniswap, SushiSwap, and PancakeSwap.

### **Key Features of DEX:**

- **Decentralization** (solution): No single point of control; operated by smart contracts.
- Privacy : No KYC (Know Your Customer) required; trades are more anonymous.
- **Security** : Users retain control of their private keys and funds.
- Transparency 🌈: Open-source and transparent transactions on the blockchain.
- Lower Fees <a>

  Often lower trading fees compared to CEXs.

## Key Differences Between CEX and DEX VS

- 1. Control and Custody  $\nearrow$ :
  - o **CEX**: The exchange holds users' funds and private keys.
  - o **DEX**: Users have full control over their funds and private keys.
- 2. Regulation and Compliance 📜:
  - o **CEX**: Subject to regulations and compliance with local laws.
  - **DEX**: Operates with fewer regulations; some are entirely unregulated.
- 3. Liquidity **\( \)**:
  - o **CEX**: Generally offers higher liquidity due to centralized order books.

 DEX: May have lower liquidity but is improving with innovations like liquidity pools.

#### 4. Fees

- o **CEX**: May charge higher fees, including withdrawal and trading fees.
- DEX: Typically lower fees, though gas fees on certain blockchains can be high.

### 5. Speed of Transactions **→**:

- o **CEX**: Fast transactions, with off-chain matching of orders.
- o **DEX**: Can be slower due to on-chain processing and network congestion.

### 6. User Experience 💁:

- CEX: Generally more intuitive and user-friendly.
- DEX: Can be complex for beginners; requires knowledge of wallet management.

## 7. Security 🕦:

- CEX: Prone to hacks and breaches, though insurance and security measures are in place.
- DEX: Safer from centralized hacks; however, smart contract bugs can pose risks.