

# Instructure Notes Description

The handwritten notes cover the following topics:

1. Digital currency
2. Physical currency
3. Central bank
4. Commercial bank
5. Banknotes
6. Coins
7. Cryptocurrency
8. Cryptography
9. Mining
10. Blockchain
11. Consensus
12. Proof of work
13. Proof of stake
14. Digital currency and central banking
15. Current banking
16. Future of banking

The notes provide a basic overview of each topic, including key concepts and relationships. For example, the notes on digital currency explain that it is a type of currency that exists only in digital form and is not backed by any physical commodity. The notes also discuss the different types of digital currency, such as Bitcoin and Ethereum.

The notes on physical currency explain that it is a type of currency that exists in physical form, such as banknotes and coins. The notes also discuss the different types of physical currency, such as paper money and metal coins.

The notes on central banks explain that they are financial institutions that are responsible for regulating the money supply and overseeing the banking system. The notes also discuss the different roles of central banks, such as setting interest rates and managing the foreign exchange market.

The notes on commercial banks explain that they are financial institutions that provide services to individuals and businesses, such as checking and savings accounts, loans, and investment services. The notes also discuss the different types of commercial banks, such as retail banks and investment banks.

The notes on banknotes explain that they are a type of paper currency that is issued by a central bank. The notes also discuss the different types of banknotes, such as paper money and polymer banknotes.

The notes on coins explain that they are a type of metal currency that is issued by a central bank. The notes also discuss the different types of coins, such as gold coins and silver coins.

The notes on cryptocurrency explain that it is a type of digital currency that uses cryptography to secure transactions and control the creation of new units. The notes also discuss the different types of cryptocurrency, such as Bitcoin and Ethereum.

The notes on cryptography explain that it is a field of study that deals with the science of

secure communication. The notes also discuss the different types of cryptography, such as symmetric cryptography and asymmetric cryptography.

The notes on mining explain that it is the process of verifying transactions and adding them to the blockchain. The notes also discuss the different types of mining, such as solo mining and pool mining.

The notes on blockchain explain that it is a distributed database that is used to maintain a continuously growing list of records, called blocks. The notes also discuss the different types of blockchains, such as public blockchains and private blockchains.

The notes on consensus explain that it is the process of reaching agreement on a single version of the truth. The notes also discuss the different types of consensus, such as proof of work and proof of stake.

The notes on proof of work explain that it is a consensus mechanism that requires miners to solve a complex mathematical problem in order to verify transactions and add them to the blockchain. The notes also discuss the different types of proof of work, such as SHA-256 and Scrypt.

The notes on proof of stake explain that it is a consensus mechanism that requires miners to stake their cryptocurrency in order to verify transactions and add them to the blockchain. The notes also discuss the different types of proof of stake, such as delegated proof of stake and proof of stake with voting.

The notes on digital currency and central banking explain that central banks are considering the possibility of issuing their own digital currencies. The notes also discuss the different challenges that central banks face in issuing digital currencies, such as the need to maintain the stability of the financial system.

The notes on current banking explain that the current banking system is based on the fractional reserve system, which means that banks only hold a fraction of their deposits in reserve. The notes also discuss the different challenges that the current banking system faces, such as the risk of bank runs.

The notes on the future of banking explain that the future of banking is likely to be shaped by the development of new technologies, such as digital currency and blockchain. The notes also discuss the different ways that these technologies could change the way that banks operate.

# Instructure Notes Description

The handwritten notes cover a comparison between two concepts: "Blockchain" and "Cryptocurrency". The instructor has written "Centralization" as a heading on the left side of the page and "Decentralization" on the right side. Under "Centralization", the instructor has listed "Banking" and "Digital Currencies". Under "Decentralization", the instructor has listed "Blockchain" and "Cryptocurrency". The instructor has drawn a line between the two columns and has written "Safer" on the left side and "Faster" on the right side.

In summary, the instructor's notes provide a brief overview of the differences between centralized and decentralized systems, with a focus on banking and digital currencies. The instructor suggests that decentralized systems, such as blockchain and cryptocurrency, are safer and faster than centralized systems.