



Financial Literacy with Mr. 401(k)
Winter Term 2024 - 2025
January 30, 2025

Exploring Bitcoin

Class 19: Bitcoin Transactions & Business Plan Project



A Bitcoin Transaction: Step-by-Step (1 of 5)



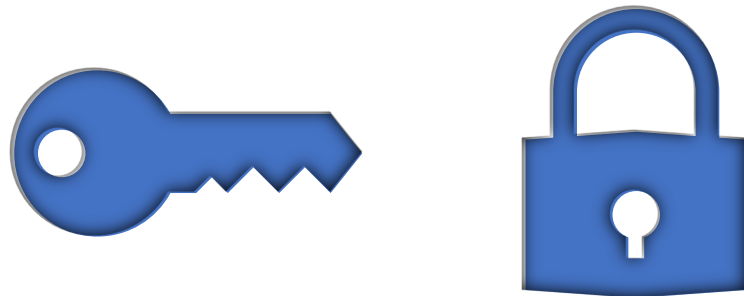
1

Owning Bitcoin



To send Bitcoin, you need a private key!

- Think of your private key like a password that lets you control your Bitcoin.
- Just like a key unlocks a door, your private key unlocks your ability to send Bitcoin.

A blue-outlined rectangle representing a mobile app interface. Inside, there's a white rectangle with a blue border. At the top, it says "Amount to Send:" followed by a text box containing "0.001 BTC". Below that, it says "Send to:" followed by a text box containing "bc1qw508d...". At the bottom, there's a large orange button with the word "SEND" in white capital letters.

A Bitcoin Transaction: Step-by-Step (2 of 5)

2

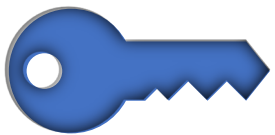
Creating a Transaction



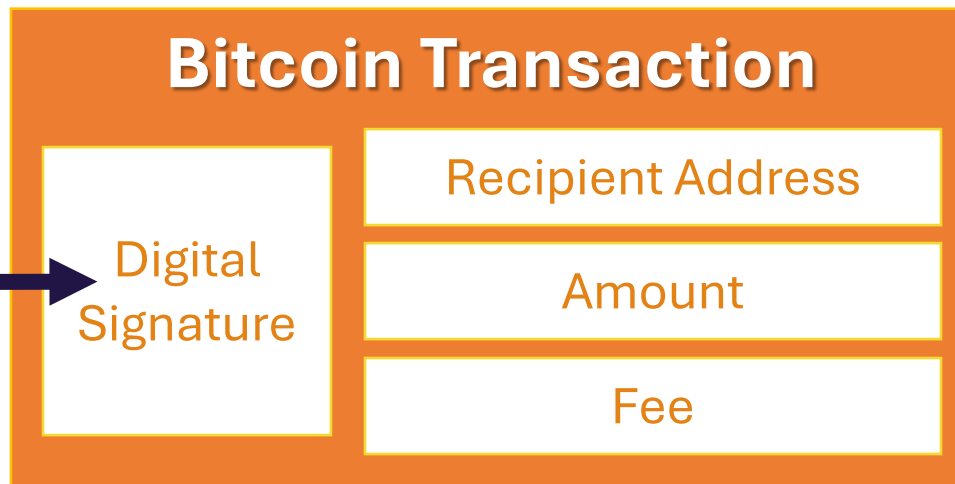
Signing a transaction with your private key!

- When you send Bitcoin, your private key creates a digital signature.
- This signature proves the Bitcoin is yours without sharing your private key.

Private Key



Cryptography



Amount to Send:

0.001 BTC

Send to:

bc1qw508d...

SEND

A Bitcoin Transaction: Step-by-Step (3 of 5)



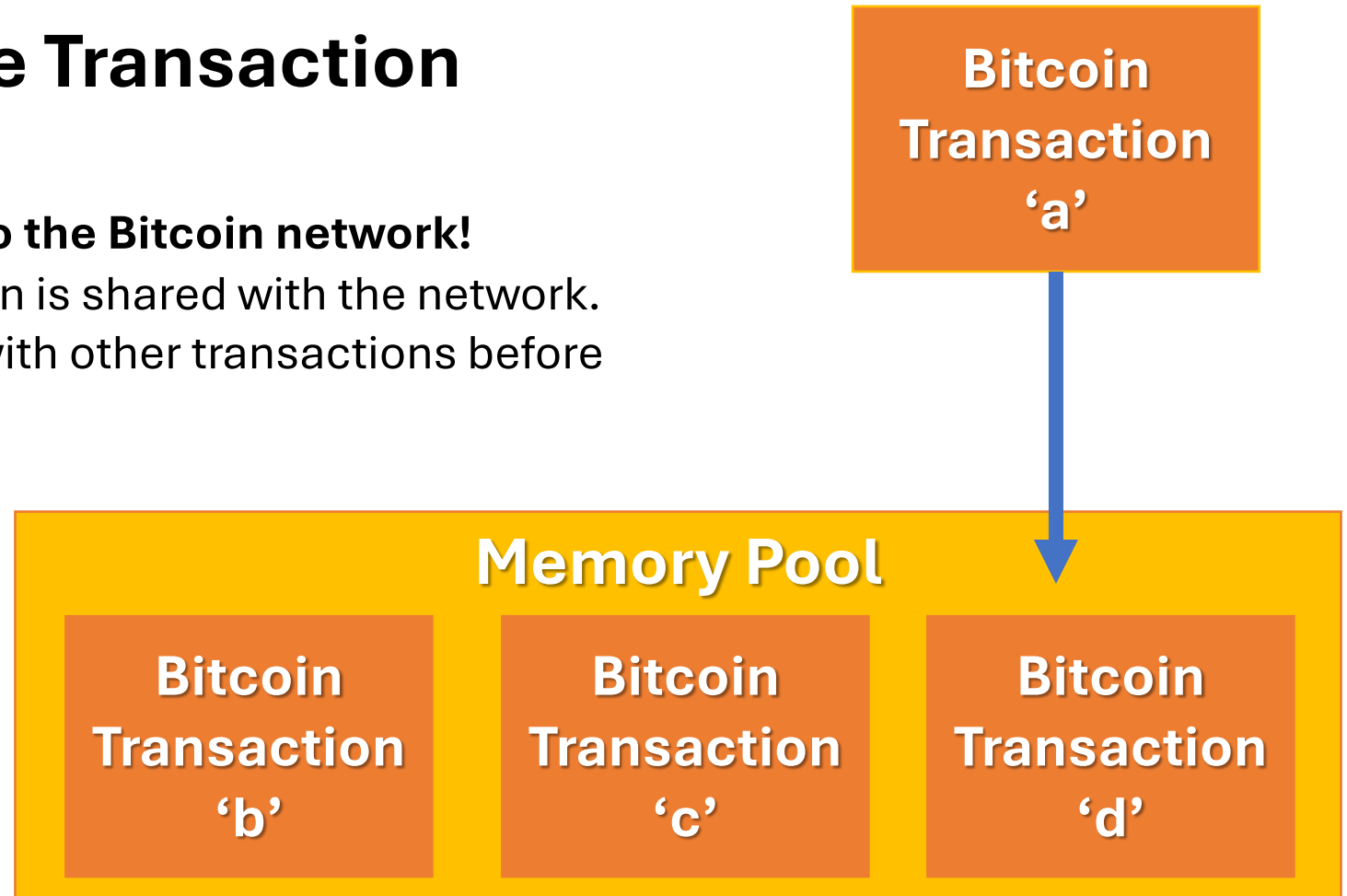
3

Sending the Transaction



Your transaction is sent to the Bitcoin network!

- After signing, your transaction is shared with the network.
- It waits in a "memory pool" with other transactions before getting confirmed.



A Bitcoin Transaction: Step-by-Step (4 of 5)



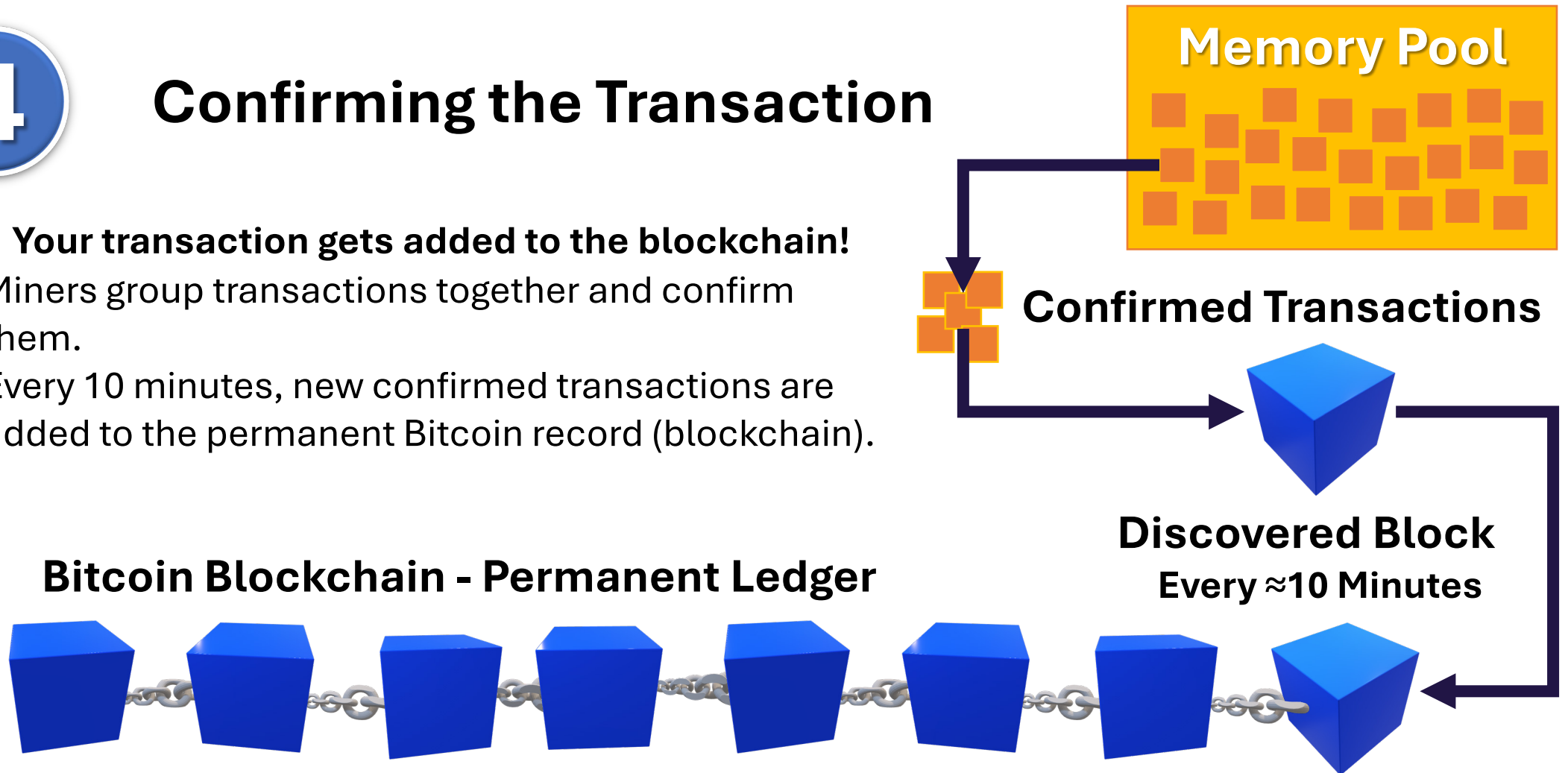
4

Confirming the Transaction



Your transaction gets added to the blockchain!

- Miners group transactions together and confirm them.
- Every 10 minutes, new confirmed transactions are added to the permanent Bitcoin record (blockchain).



A Bitcoin Transaction: Step-by-Step (5 of 5)



5

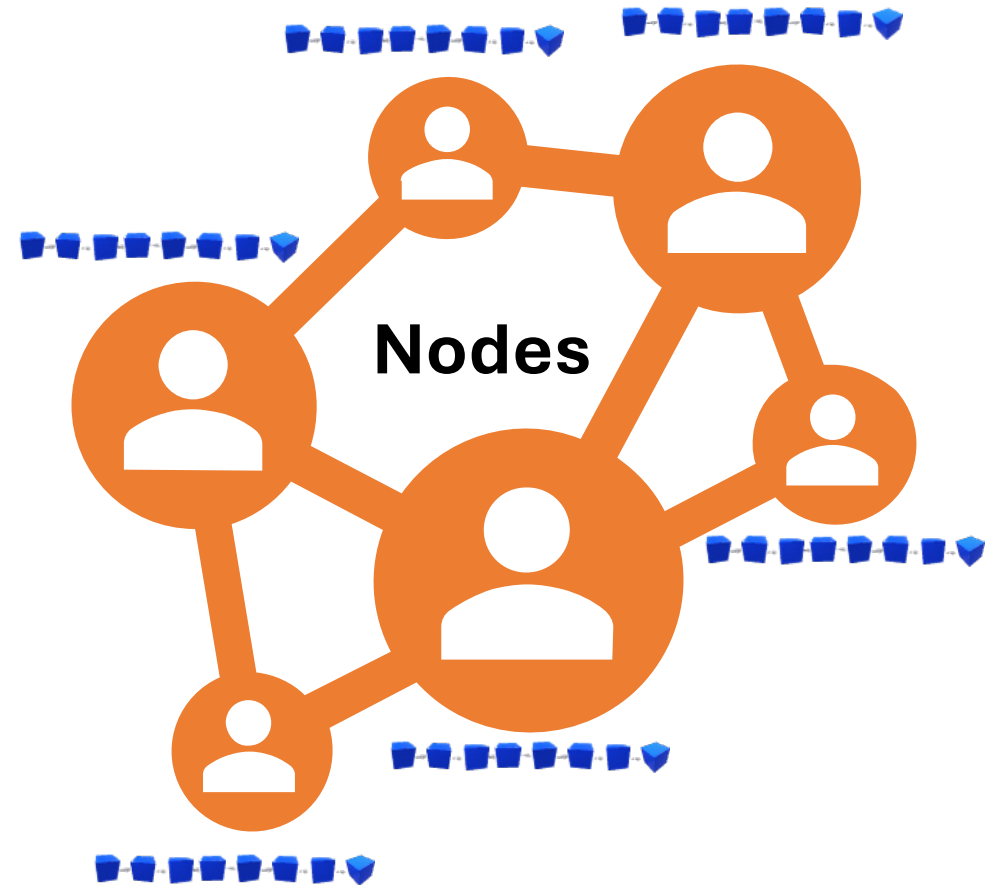
Keeping Bitcoin Secure



Thousands of computers store Bitcoin's history!

- Bitcoin is stored across a network of computers (called nodes).
- These computers make sure all transactions are correct and keep Bitcoin secure.

21,683 Bitcoin Nodes*



*<https://bitnodes.io> as of January 30, 2025

A photograph of a wooden table workspace where several people are collaborating on a business plan project. The table is covered with various documents, including one titled 'INFORMATION' on the left. Numerous colorful sticky notes (pink, green, yellow) are placed across the documents. A circular diagram with segments labeled 01 through 08 is visible in the center. A person's hand is seen placing a green sticky note on a document. In the background, there are office supplies like a white mug, a black desk lamp, and a stapler. The overall scene depicts a busy, collaborative work environment.

Business Plan Project

Customers Pay to Resolve a Problem

People part with their money only if
they can satisfy a **‘need’** or a **‘want’**

Money Mavericks

Objective: First, give your business a name – you can always change it later as your business plan develops. A good business plan demonstrates how a business idea will be a developed into successful company. Here are some questions to help you get started...



Practical Application



1. Business Identity

- What is your business name?
- Design a logo for your business. *(Optional but encouraged!)*
- What is your business's mission? *(What problem does it solve? Why does it exist?)*
- What is your business's vision? *(Where do you see your business in the future?)*

2. Products & Services

- What products and/or services does your business offer?
- What makes your product or service valuable to customers? *(What problem does it solve or what needs or wants does it fulfill?)*

2. Products & Services (continued)

- How does your business earn money? *(Sales, subscriptions, services, etc.)*
- How much will you charge for your products or services? How did you decide on these prices?
- How many products or services do you need to sell to cover your costs? *(Break-even point)*

3. Target Market & Customers

- Who are your business's target customers? *(Age, interests, location, etc.)*
- Where will customers find your business? *(Online, in a store, at events, etc.)*

Practical Application

4. Costs & Expenses

- What are the costs to start your business? (*Supplies, materials, website, etc.*)
- Where will your business's startup costs come from? (*Savings, investors, fundraising, etc.*)
- What are your business's ongoing expenses? (*Rent, supplies, marketing, employee wages, etc.*)

5. Competition & Differentiation

- Who are your main competitor(s)?
- What makes your business different from the competition?
- Why would customers choose your business over a competitor?

6. Marketing & Customer Engagement

- How will your business promote its products and/or services? (*Social media, flyers, ads, word of mouth, etc.*)
- How will you attract new customers and keep them coming back? (*Special deals, loyalty programs, great customer service, etc.*)

7. Team & Responsibilities

- Who are the members of your business team?
- What roles and responsibilities will each team member have? (*Who is in charge of marketing, finances, operations, etc.?*)

Practical Application

A large, dark silhouette of a human head in profile, facing left, serves as a background. Inside the head, three interlocking puzzle pieces are visible. The puzzle pieces are a golden-brown color with a textured, slightly irregular surface. They are arranged in a triangular pattern, with one piece at the top and two below it, slightly offset.

8. Challenges & Risks

- What are some possible challenges your business might face? (*Competition, cost overruns, customer interest, etc.*)
- How will your business overcome these challenges? (*Backup plans, strategies, adjustments, etc.*)

9. Business Pitch

- Write a short “elevator pitch” that describes your business to potential customers. (*This should be a persuasive and engaging summary.*)



Three Key Takeaways

1. Bitcoin transactions require a private key, like a digital password, to send Bitcoin securely.
2. Bitcoin transactions go through multiple steps—broadcasting, waiting, and confirmation—before being permanently recorded on the blockchain.
3. Bitcoin is decentralized, meaning thousands of computers (nodes) keep copies of all transactions to ensure security and accuracy.



Where to Learn More

- [Bitcoin Education](#) by Petros Koumantaros
- [Bitcoin Money: A Tale of Bitville](#)
[Discovering Good Money](#) by Michael Caras (Author), Marina Yakubivska (Illustrator)
- [The Bullish Case for Bitcoin](#) by Vijay Boyapati