

The Accounting Equation

ACCT 201 B – Lecture 1

At a Glance:

Origins of Accounting | Luca Pacioli |
Double-Entry Bookkeeping | Debits & Credits
Journals, Ledgers & Trial Balances

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1. The Origins

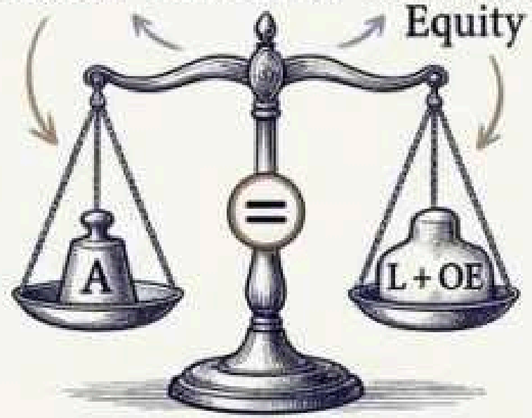
Where did modern accounting come from?

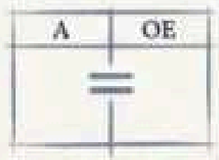


2. The Equation

What is the accounting equation, and why must it always balance?

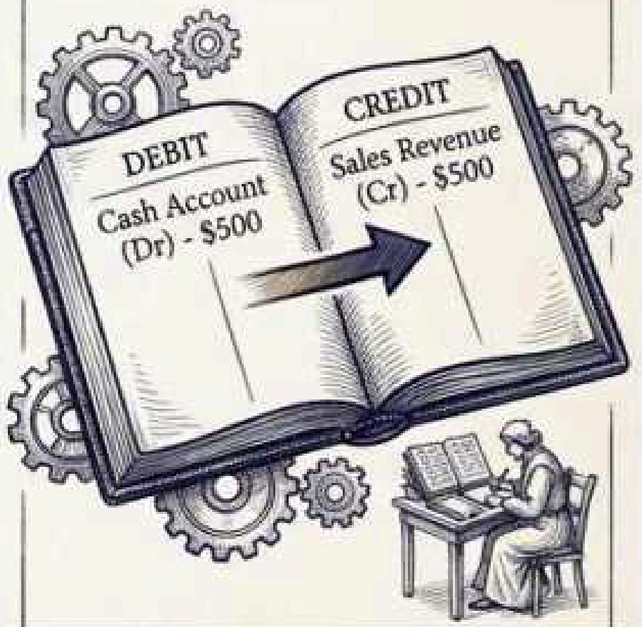
Assets = Liabilities + Owner's Equity





3. The Mechanics

How does double-entry bookkeeping record every single transaction?



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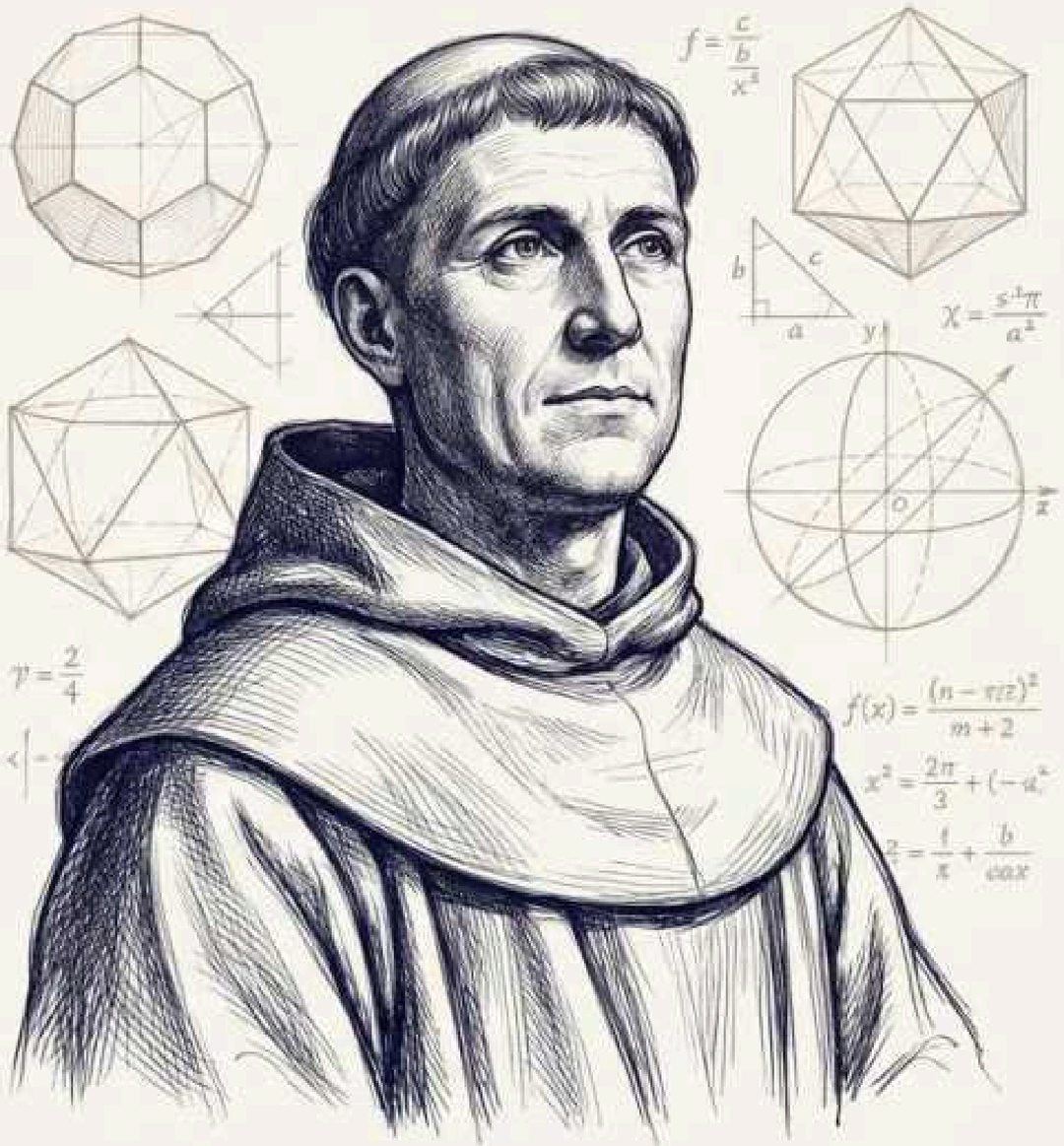
5,000+ Years Ago (Mesopotamia)

The earliest known writing systems were simply inventories to record quantities of grain and livestock on clay tablets.

Medieval Italy

Modern accounting is born out of necessity. Merchants required a system to track complex, distributed business networks involving multiple partners, loans, and goods moving across regions.

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The Father of Accounting

Luca Pacioli (Venice, 1494)

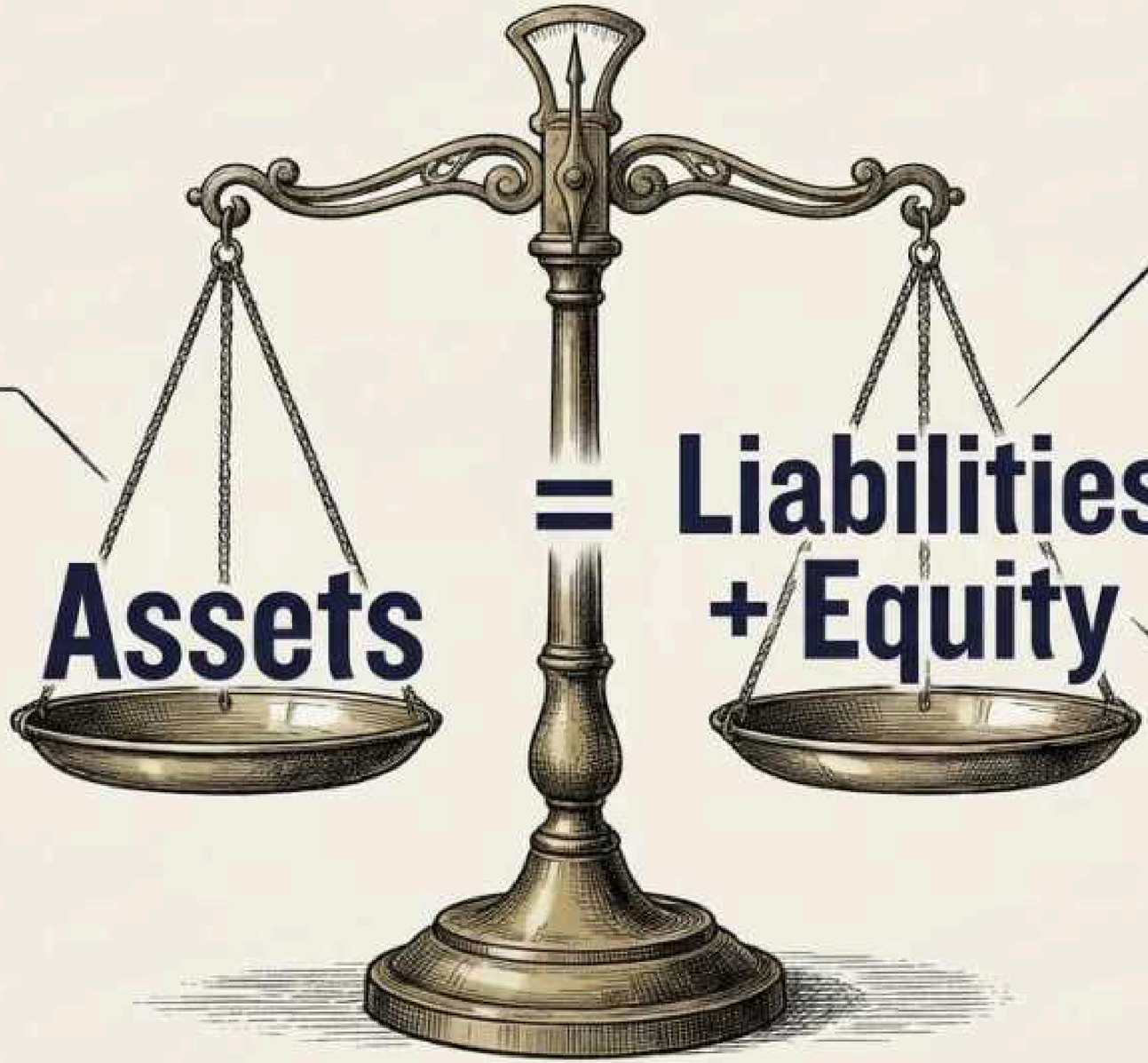
A Franciscan friar and mathematician who published a landmark mathematics textbook containing the first printed description of **double-entry bookkeeping**.

Insight: He is celebrated not for inventing the method, but for codifying and publishing the brilliant, pre-existing practices used by Venetian merchants.

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Assets

What the business owns or controls for future benefit. (Examples: Cash, Inventory, Equipment)



Liabilities

What the business owes to others.

Equity

What belongs to the owners (the exact value of Assets left over after paying all Liabilities).

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Launching the Bicycle Shop (Part I)

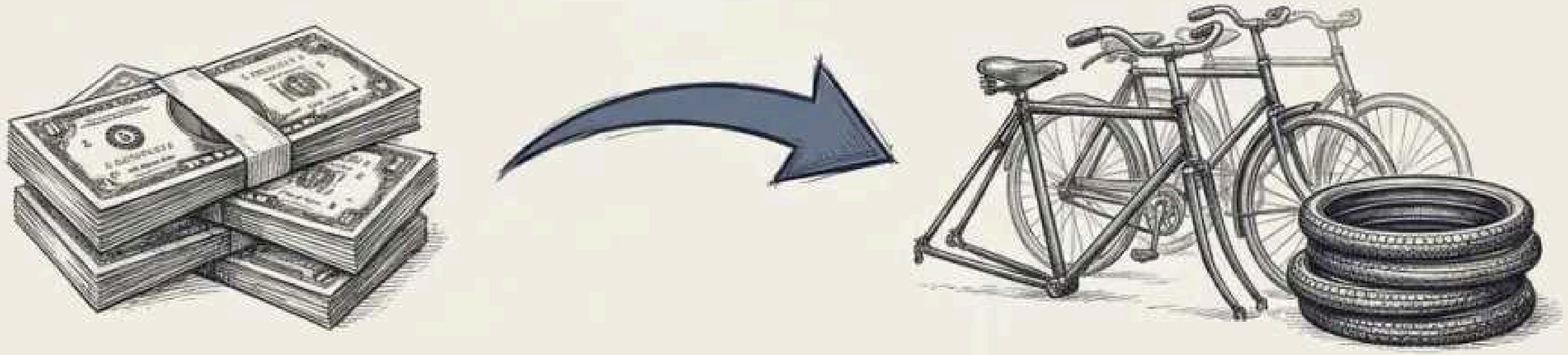


	Assets	=	Liabilities	+	Equity
Step 1: The Investment (Owner puts in $10k)	$10k Cash		$0		$10k
		−		+	
Step 2: The Bank Loan (Shop borrows $5k)	$15k Cash		$5k		$10k

Conclusion: The equation perfectly balances at $15,000.

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Expanding the Bicycle Shop (Part II)



Step 3: The Purchase	(The Asset Shift)
The shop buys bicycles for $6,000 in cash.	Cash falls by $6k -> (New Balance: $9k) Inventory (a new asset) rises by $6k -> (New Balance: $6k)
	Total Assets: Remain unchanged at $15,000.

The Core Insight: Every transaction changes at least two items.
The equation ALWAYS balances.

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The Rosetta Stone of Double-Entry

Debit (Dr)

- Origin: Latin for ‘he owes’
- Modern Meaning: Left Side
- Rule: Increases Assets & Expenses

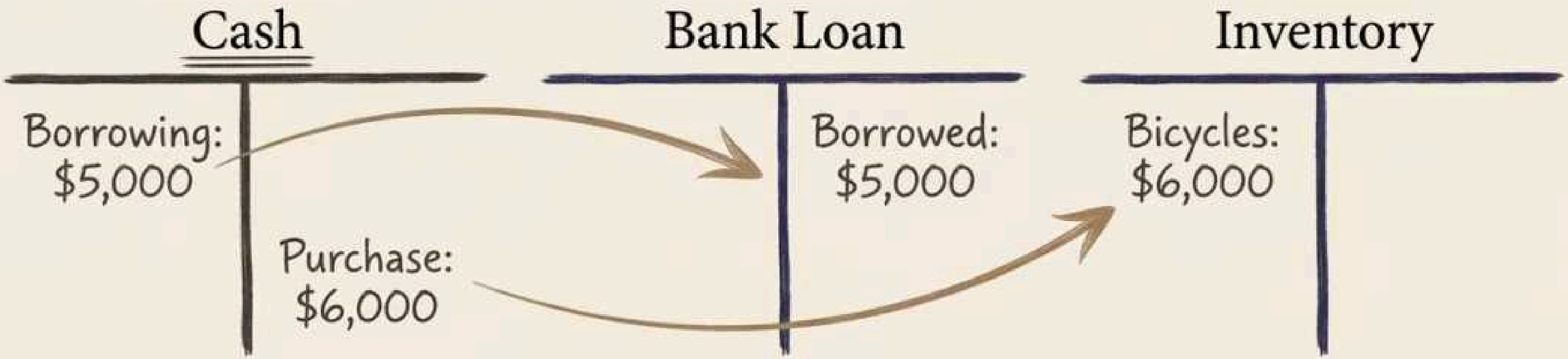
Credit (Cr)

- Origin: Latin for ‘he trusts’
- Modern Meaning: Right Side
- Rule: Increases Liabilities, Equity, & Revenue

The Universal Law: Every transaction is recorded in at least two accounts, with equal debits and credits.

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Applying the Rules to the Bicycle Shop



Action 1: Borrowing $5,000
Debit: Cash (Asset up) by $5k
Credit: Bank Loan (Liability up) by $5k

Action 2: Buying $6,000 of Bicycles
Debit: Inventory (Asset up) by $6k
Credit: Cash (Asset down) by $6k

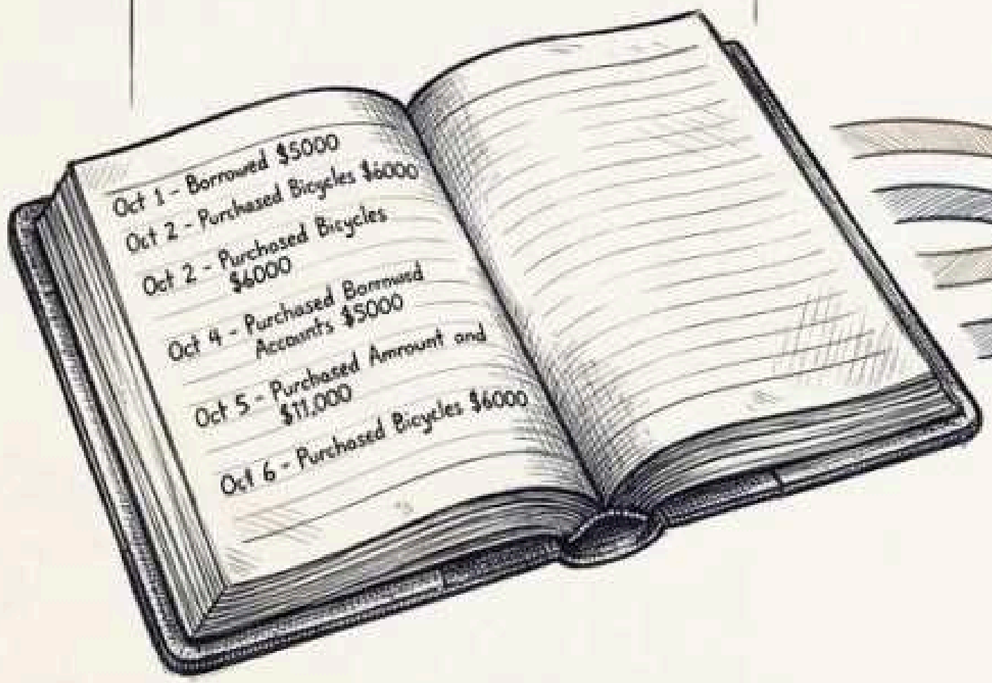
The Result: In every entry, Total Debits = Total Credits. Equilibrium is strictly maintained.

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The Flow of Financial Data

Stage 1: The Journal

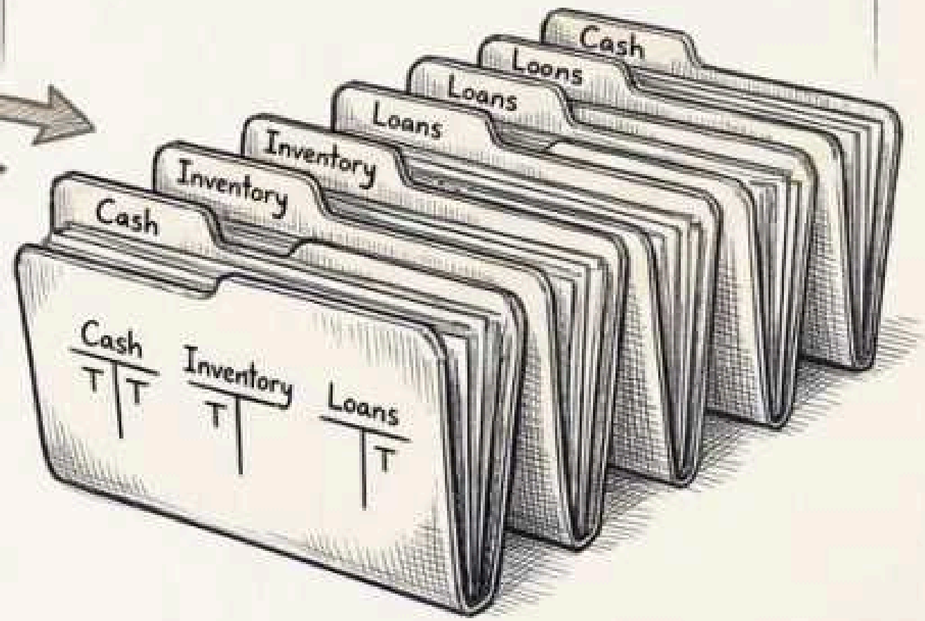
A chronological, dated list of entries.
The "diary" of the business.



(Data is then posted to...)

Stage 2: The Ledger

The categorical sorting system. Contains a separate account for each specific item (Cash, Inventory, Loans).
Tracks all increases and decreases.
You can read the balance of any account here at any time.



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The Trial Balance *(And Its Blind Spot)*

Account	Debits	Credits
Cash	$8,000	$0
Inventory	$6,000	$0
Bank Loan	$0	$5,000
Accounts Payable	$0	$7,000
Owner's Equity	$0	$2,000
Total	$14,000	$14,000



What it is:

A period-end list of every account's balance with Debits in one column and Credits in the other.

The Diagnostic:

If the two totals do not match –>
There is guaranteed to be an error.

The Blind Spot:

A perfectly matched trial balance does NOT prove the books are correct. Errors such as posting to the wrong account will still result in perfectly balanced math.

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The Engine of Capitalism



The Power of the Invention:

Double-entry allowed merchants to track vast complexities, accurately calculate profit, and detect internal errors or fraud.

The Macro Impact:

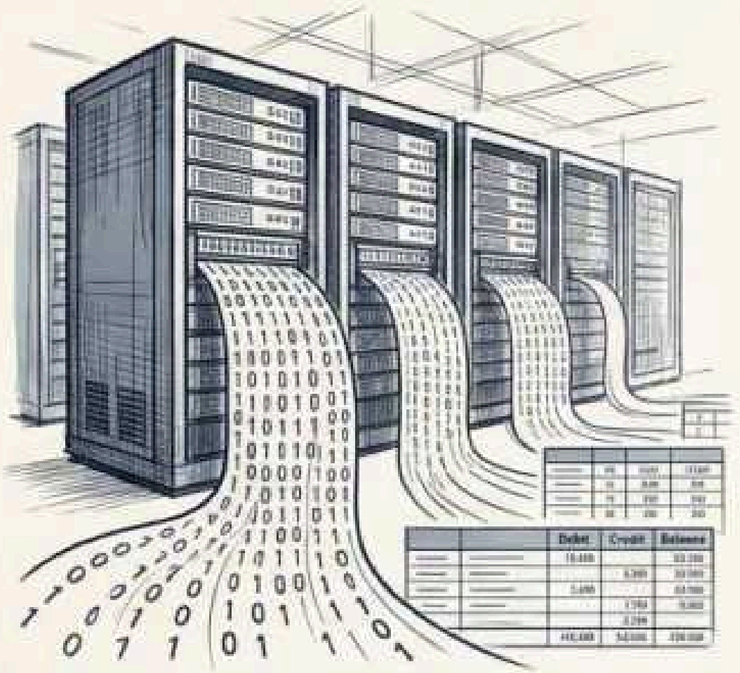
German economist Werner Sombart famously argued that the invention of double-entry bookkeeping was instrumental in making modern capitalism itself possible (a claim historians still debate today).

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Man vs. Machine in Modern Accounting

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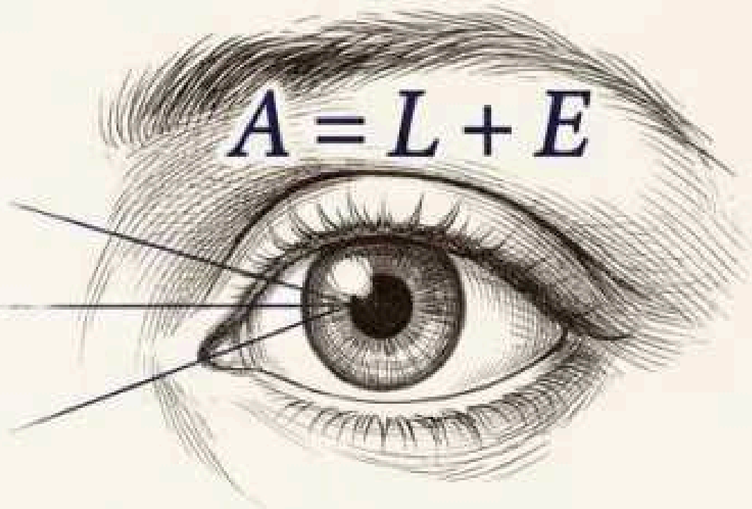
The Machine



The Reality:

Today, nearly all bookkeeping—from small business apps to massive enterprise systems—is automated by software. The computer makes the entries and balances them.

The Human



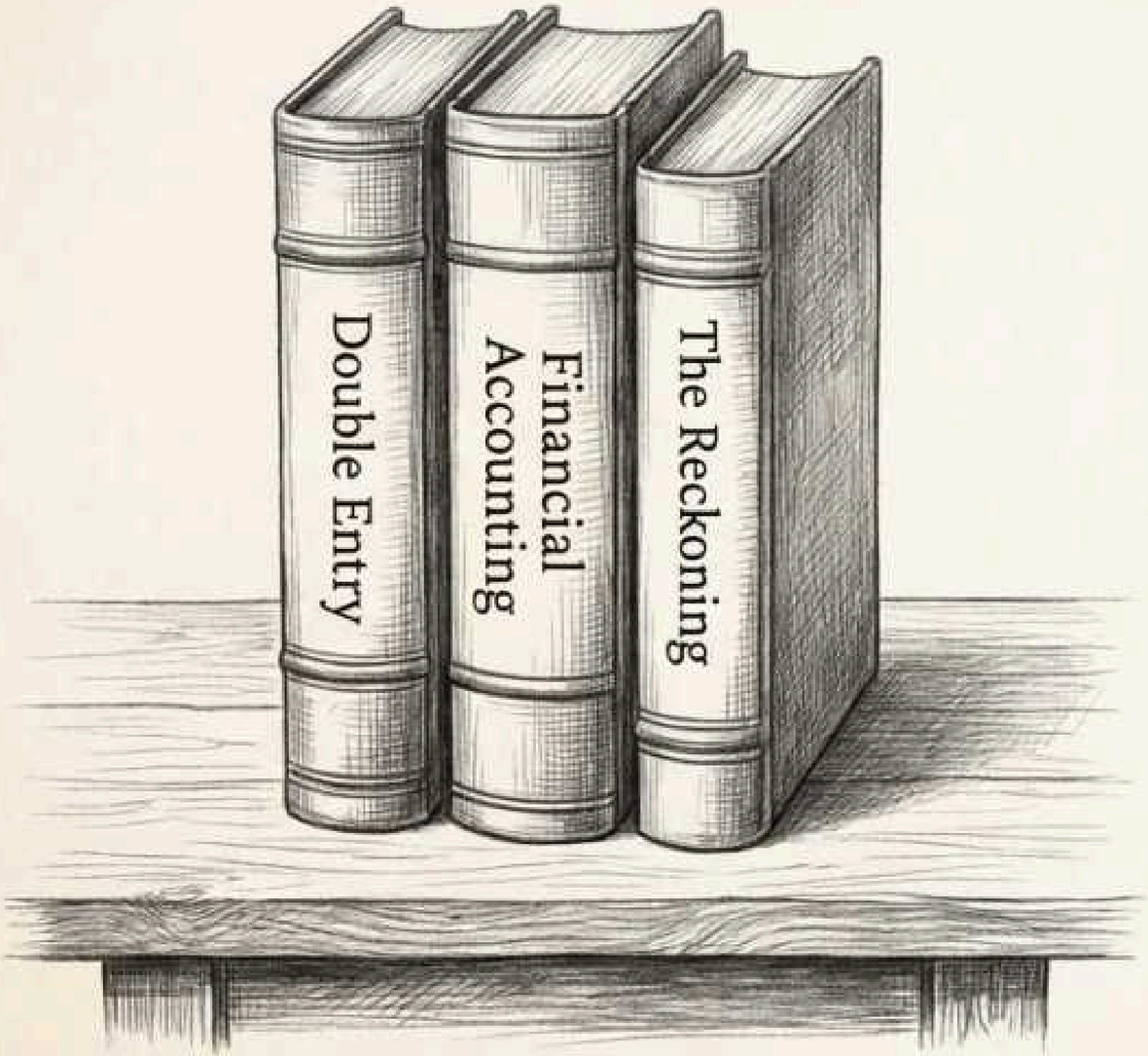
The Necessity:

Understanding the logic of debits, credits, and the accounting equation remains absolutely essential.

Why? Software executes the math. Human logic is required to understand, audit, and check the reality of what the software produces.

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Where to Go Next



The History: Double Entry **by Jane Gleeson-White (2011).**

Traces the history of accounting from Pacioli to the modern era.

The Practice: Introductory Financial Accounting Textbooks.

The best source for rigorous, repetitive practice problems.

The Macro View: The Reckoning **by Jacob Soll (2014).**

Explores how accounting practices directly link to the rise and fall of entire nations.

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Closing Exercise

Current State:

Cash $9k | Inventory $6k | Loan $5k | Equity $10k



The Action:

The shop pays $1,000 of the loan back in cash.

Your Task (Fill in the blanks):

Debit: [ ]

Credit: [ ]

New Equation: Assets = Liabilities + Equity

Looking Ahead: In Lecture 2, we translate this equation into the Balance Sheet.

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