So, you want to learn
Bookkeeping!
The Logic Of Double Entry Bookkeeping and Debits and Credits Explored

Luca Pacioli is credited with developing the double entry system of accounting. Luca was a mathematician and friend of Leonardo Da Vinci. Modern Accounting still uses Pacioli's System as its **foundation**. Of course, many additional rules and methods have been added.

Let's pretend that we're Luca Pacioli and we're developing the double entry bookkeeping system.

First, we (he) set about determining our (his) **Requirements**.

Our (His) Requirements (Rules) for our (his) Double Entry Bookkeeping System

1. Provide a Record to Keep Up with **What Assets** You **Get** and **Whose Right or Claim to Them was Increased** - Liabilities (Creditors) or Owners
2. Provide a Record and Keep Up With **What Assets** You **Give Up or Use** and **Whose Right or Claim to Them was Decreased** - Liabilities (Creditors) or Owners
3. Maintain all the records in **One** Main Book.
4. Provide a Record that would Group and Categorize the **reasons for the increases and decreases to the Owner's Property Rights**. In other words provide a record that would not only tell that the owner's right or claim was increased or decreased but why it was. These groupings resulted in the revenue, cost, expense, and draw accounts.
5. Include a self-checking mechanism to ensure that transactions are properly recorded.

What do you think the purpose of Requirement 4 is ? Simply, to determine if you made a profit or had a loss over a period of time and additionally provide you with an analysis of the revenues and expenses by categories.

Our Last Step is to provide the **rules needed** (debit / credit) to record transactions in a manner that will help ensure that our transactions are properly recorded (balance) and account for the resulting increases or decreases to our account balances.

Based on our rule to keep up with the Property and the Rights Attached To the Property the following equations evolved:

Accounting Equations:

- Condensed Version
  Property = Property Rights
- Expanded Version
  Assets = Liabilities + Owner's Equity
- Fully Expanded Version
  Assets = Liabilities + Beginning Owner's Equity + Owner Investments + Revenues - Expenses - Draws

Other Equations / Formulas:

- Owner's Equity = Beginning Capital + Profit or - Loss - Owners Draws + Owner's
- Investments Profit or Loss = Revenue - Costs and Expenses

Next, we (he) decided to define the **terminology** we (he) wanted to use for our Property and Property Rights.

Assets
Formal Definition:The properties used in the operation or investment activities of a business.

Informal Definition:All the good stuff a business has (anything with value). The goodies.

Additional Explanation: The good stuff includes tangible and intangible stuff. Tangible stuff you can physical see and touch such as vehicles, equipment and buildings. Intangible stuff is like pieces of paper (sales invoices) representing loans to your customers where they promise to pay you later for your services or product. Examples of assets that many individuals have are cars, houses, boats, furniture, TV's, and appliances. Some examples of business type assets are cash, accounts receivable, notes receivable, inventory, land, and equipment.

Liabilities
Formal Definition:Claims by creditors to the property (assets) of a business until they are paid.

Informal Definition:Other's claims to the business's good stuff. Amounts the business owes to others.

Additional Explanation: Usually one of a business's biggest liabilities (hopefully they are not past due) is to suppliers where a business has bought goods and services and charged them. This is similar to us going out and buying a TV and charging it on our credit card. Our credit card bill is a liability. Another good personal example is a home mortgage. Very few people actually own their own home. The bank has a claim against the home which is called a mortgage. This mortgage is another example of a personal liability. Some examples of business liabilities are accounts payable, notes payable, and mortgages payable.

Owner's Equity also called Owner's Capital
Comment: Both terms may be used interchangeably. In my tutorial lessons, I may refer to both terms or just use one or the other.

Formal Definition:The owner's rights to the property (assets) of the business; also called proprietorship and net worth.

Informal Definition:What the business owes the owner. The good stuff left for the owner assuming all liabilities (amounts owed) have been paid.

Additional Explanation:Owner's Equity (Capital) represents the owner's claim to the good stuff (assets). Most people are familiar with the term equity because it is so often used with lenders wanting to loan individuals money based on their home equity. Home equity can be thought of as the amount of money an owner would receive if he/she sold their house and paid off any mortgage (loan) on the property.

Revenue (Income), Expenses, Investment, and Draws
Revenues, expenses, investment, and draws are sub categories of owner's equity (capital). Think of owner's equity as a mom named Capital with four children to keep up with (I know she's only got one clinging to her leg but she left Expense, Investment, and Draws at home). The kids are named Revenue, Expense, Investment, and Draws and each kid has one job that they are responsible for in order to earn their allowance. **Kid Revenue** is responsible for keeping track of increases in owner's equity (Ma Capital) and **Kid Expense** is responsible for keeping track of decreases in owner's equity (Ma Capital) resulting from business operations. **Kid Draws** has the job of keeping up with decreases in owner's equity (Ma Capital) resulting from owner withdrawals for living expenses and other personal expenses. **Kid Investment** has the job of keeping up with increases in owner's equity (Ma Capital) resulting from additional amounts invested in the business.

Revenue also called Income
Formal Definition:The gross increase in owner's equity (capital) resulting from the operations and other activities of the business.

Informal Definition:Amounts a business earns by selling services and products. Amounts billed to customers for services and/or products.

Additional Explanation:Individuals can best relate by thinking of revenue as their earnings/wages they receive from their job. Most business revenue results from selling their products and/or services.

Expense also called Cost
Formal Definition:Decrease in owner's equity (capital) resulting from the cost of goods, fixed assets, and services and supplies consumed in the operations of a business.

Informal Definition:The costs of doing business. The stuff we used and had to pay for or charge to run our business.

Additional Explanation:Some examples of personal expenses that most individuals are familiar with are utilities, phone, clothing, food, gasoline, and repairs. Some examples of business expenses are office supplies, salaries & wages, advertising, building rental, and utilities.

Owner's Investments
Formal Definition: Increase in owner's equity (capital) resulting from additional investments of cash and/or other property made by the owner.

Informal definition: Additional amounts, either cash or other property, that the owner puts in his business.

Additional Explanation:Although these amounts can be kept up with as a separate item, they are usually recorded directly in the Owner's Capital Account. In other words, immediately put into Ma Equity's purse.

Owner's Drawing
Formal Definition: Decrease in owner's equity (capital) resulting from withdrawals made by the owner.

Informal definition: Amounts the owner withdraws from his business for living and personal expenses.

Additional Explanation:The owner of a sole proprietorship does not normally receive a "formal" pay check from the business, but just like most of the rest of us needs money to pay for his house, car, utilities, and groceries. An owner's draw is used in order for the owner to receive money or other "goodies" from his business to take care of his personal bills.

Our (His) Types of Accounts are derived from our (his) Terminology Definitions, Accounting Equation, and our Stated Requirements.

We decided to use what we called accounts to summarize and group our transactions. An Account is a separate record for each type of asset, liability, equity, revenue, and expense used to show the beginning balance and to record the increases and decreases for a period and the resulting ending balance at the end of a period.

Our Accounts are grouped unto the following Major Categories:

- Assets
- Liabilities
- Owner's Equity (Capital)
  Revenue
  Costs and Expenses
  Draws
  Owner Additional Investments

Developing and providing the rules needed (debit / credit) to record transactions in a manner that will help ensure that our transactions are properly recorded (balance) and account for the resulting increases or decreases to our account balances.

Also, we need to remember that we want to maintain all our records in **One Book**. If we didn't have this requirement, we could use **one book** to only record and keep up with our **Property Accounts** and another book to only record and keep up with our **Property Rights (Claims) Accounts**.

Each Book would contain a column for increases, another for decreases, and one for the running balance or total of the accounts. The total positive balances of our **Property Book Accounts** would equal our total positive balances of our **Property Rights Book Accounts**. Also note that while the net increases (increases less decreases) in each book would equal each other; the total increases **do not equal** the total decreases in each individual book nor in our combined book.

Since we want the property and property rights (claims) all in one book, we need a method for determining, denoting, and presenting the balances of **both** the Property and Property Rights. Why ? Since both sets of books have positive balances if we added up all the balances in our combined book we would end up with the combined total of the two books instead of the total for each of the separate books.

Remember, not only do we want just one book, we also wanted a method that includes a self-checking mechanism to ensure that transactions are properly recorded so it looks like we need a different approach..

Our approach will basically be using different symbols for recording the increases and decreases and the balances of our combined book of accounts which include our property as well as our property rights accounts.

Well, let's see how you, me, and Luca developed what are called Debits and Credits. We'll start out using the following four abbreviations (codes) to initially name our increases and decreases.

AI = Asset Increase
AD = Asset Decrease

PRI = Property Right Increase
PRD = Property Right Decrease

Next we'll use our "codes" to develop the following equation:
Asset Increases - Asset Decreases = Property Right Increases - Property Right Decreases
or abbreviated as follow:
AI - AD = PRI - PRD

We'll use some basic algebra that deals with equalities to restate our equation with all additions (+ 's) in our equation. Since this is not an algebra lesson, trust me our new equation is just a restated version of our original equation.

Our New Equation:
AI + PRD = PRI + AD
Or
Asset Increases + Property Right Decreases = Property Right Increases + Asset Decreases

Rather than having to keep up with four types of codes for our transactions we can simplify and reduce our transaction codes to only two (2).

How can we do this and keep our basic accounting equation in balance ?

If you look at our restated equation, AI and PRD are on the left side and PRI and AD are on the right side.

Let's group are **two left side codes (AI and PRD)** in our equation into one code which we'll call a **debit**.

This code (debit) will **represent two types of transactions**:

- An Increase to an Asset (AI)
- A Decrease to a Property Right (PRD)

Applying the same logic to the right side of our equation, we'll group are two **right side codes (PRI and AD)** into one code which we'll call a credit.

This code (credit) will **represent two types of transactions**:

- An Increase to a Property Right (PRI)
- A Decrease to an Asset (AD)

Now carrying this one step further we can come up with the following equation:

Debits (AI + PRD) = **Credits** (PRI + AD)

Our new equation becomes part of our foundation for our double entry bookkeeping system. Simply stated - debits equal credits. This also provides a self checking mechanism that helps provide assurance that transactions are properly recorded.

Now based on our equation, we have the basis for developing and stating our **debit and credit rules**.

Debits are:

- An Increase to an Asset (AI)
- A Decrease to a Property Right (PRD)

and

Credits are:

- An increase to a Property Right (PRI)
- A decrease to an Asset (AD)

We could have picked any names to use for our codes such as Balance1 and Balance2 instead of the codes Debits and Credits.

Now, we'll expand our rules for the types of **accounts that record the property rights**.

Let's first state what PRD (Property Right Decreases) are:

These all represent Debit Entries.

- Decrease In Liabilities
- Decrease In Owner's Equity - Draw (Increase)
- Decrease In Owner's Equity - Expense (Increase)
- Decrease In Owner's Equity - Revenue (Decrease)

Comment: Note that while Expenses and Draws actually increase with a debit the result of this increase is a decrease in Owner's Equity.

Now let's take a look at what makes up PRI (Property Right Increases)

These all represent Credit Entries.

- Increase in Liabilities
- Increase in Equity - Revenue (Increase)
- Increase In Equity -Expense (Decrease)
- Increase In Equity - Draw (Decrease)
- Increase In Equity - Owner's Contribution (Increase To Capital)

Now that we've developed our double entry bookkeeping structure, let's develop a table and an easy method for applying the debit and credit rules that we just developed.

How To Use and Apply Our Debit and Credit Rules:

(1) Determine the types of accounts the transactions affect-asset, liability, revenue, or expense account.
(2) Determine if the transaction increases or decreases the account's balance.
(3) Apply the debit and credit rules based on the type of account and whether the balance of the account will increase or decrease.

Account Type	Normal Balance	Increase To Account Balance	Decrease To Account Balance	Account Example
Property Accounts				
Asset	**Debit**	**Debit - Left Column** Of Account	**Credit - Right Column** Of Account	Cash, Accounts Receivable
Property Rights Accounts				
Liability	**Credit**	**Credit - Right Column** Of Account	**Debit - Left Column** Of Account	Accounts Payable
Owner's Equity	**Credit**	**Credit - Right Column** Of Account	**Debit - Left Column** Of Account	Owner's Capital
Revenue	**Credit**	**Credit - Right Column** Of Account	**Debit - Left Column** Of Account	Sales
Costs and Expenses	**Debit**	**Debit - Left Column** Of Account	**Credit - Right Column** Of Account	Rent, Utilities, Advertising
Owner Draws	**Debit**	**Debit - Left Column** Of Account	**Credit - Right Column** Of Account	Owner Draws

Comment:
Notice that in our table that sometimes the Left Column is used to record an increase to an account and in other instances it's used to record a decrease to an account. Likewise, sometimes the Right Column is used to record an increase to an account and in other instances it's used to record a decrease to an account. It all depends on the Type Of Account.

Similarly, in our table, sometimes a debit is used to record an increase to an account and in other instances it's used to record a decrease to an account. Likewise, sometimes a credit is used to record an increase to an account and in other instances it's used to record a decrease to an account. Again, it all depends on the Type Of Account.

Also, notice that all the **debit entries** are made in the **left column** and the **credit entries** in the **right column** of an account. The Debit Side of an account is the Left Side (Left Column) of an account and the Credit Side of an account is the Right Side (Right Column) of an account. This is why all the accountant jokes about debits on the left and credits on the right originated.

Lastly, what may not be obvious from looking at the table is the fact that all accounts that have a normal debit balance are increased by using a debit. Likewise, all accounts that have a normal credit balance are increased using a credit. This provides us with an easy rule for determining when to debit or credit an account.

All You Need To Know About Debits and Credits Summarized In One Sentence:

Enter an amount in the **Normal Balance Side** of an Account to **Increase the Balance** of an Account and in the **Opposite Side** of an Account to **Decrease the Balance** of an Account.

One more table to illustrate debits and credits and how they affect and are used with the different types of accounts. The six major types of accounts assets, liabilities, owner's equity, revenue, expense, and draws are listed below in T-Accounts.

Asset Accounts
Account Name

Increase	**Decrease**
Debit	Credit
Left Side or Debit Side of Account	Right Side or Credit Side of Account

Liability Accounts
Account Name

Decrease	**Increase**
Debit	Credit
Left Side or Debit Side of Account	Right Side or Credit Side of Account

Equity (Capital) Accounts
Account Name

Decrease	**Increase**
Debit	Credit
Left Side or Debit Side of Account	Right Side or Credit Side of Account

Revenue Accounts
Account Name

Decrease	**Increase**
Debit	Credit
Left Side or Debit Side of Account	Right Side or Credit Side of Account

Expense Accounts
Account Name

Increase	**Decrease**
Debit	Credit
Left Side or Debit Side of Account	Right Side or Credit Side of Account

Draw Accounts
Account Name

Increase	**Decrease**
Debit	Credit
Left Side or Debit Side of Account	Right Side or Credit Side of Account

Observation: The terms increase and decrease appear in our T-Accounts as Increase and Decrease for the Asset, Expense, and Draw types of accounts. The order is reversed and the terms appear as Decrease and Increase for the Liability, Equity (Capital), and Revenue types of accounts.

Congratulations ! I don't know if you realize it or not, but **you, me, and Luca Pacioli** just developed the double entry bookkeeping system.

Since we developed it, we definitely shouldn't have any problem using it should we ?

Our Simple Debit and Credit Rule Presented Once More.
Enter an amount in the **Normal Balance Side** of an Account to **Increase the Balance** of an Account and in the **Opposite Side** of the Account to **Decrease the Balance** of an Account.