Course Overview

- Accounting Principles

2022. 2.

Dr. Yangin Yoon

Agenda

- Recap the last class
- Course Principles
- The Value of Corporations: Simplified Examples

) main content of AP

- The Value of Corporations: Multiple Periods
- Income Statement
- Balance Sheet

• We need accounting records:

Recap the last class - Performance evaluation

- How to record the events and transactions?
 - Man-made rules
 - Cash in flow and cash out flow recording
 - Limitations and other problematic cases

only cash focus

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• Concept of Corporation

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- You have a younger brother (sister). Your parents want to you to guide yo ur brother (sister) to build a desirable habit.
 - When should you give praise to your sibling?

		March	April	May	
(Income)	Allowance (Cash)	100,000	100,000	100,000	
(Spending)	Transportation	30,000	25,000	30,000	
	Snacks	12,000	40,000	8,000	
	Buying books	30,000	0	0	a a at Tve
	Buying game items			70,000	negative

→ We can evaluate performance by using cash in-and-out records.

- You and your brother made an agreement. You promised that you would give the same amount of money that your brother would have at the end of every month.
 - Does this promise make your brother a good boy?

		March	April	May	June	
(Income)	Allowance (Cash)	100,000	100,000	100,000	100,000	
(Spending)	Transportation Snacks	30,000 12,000	25,000 30,000	30,000 8,000		also negative
	Buying books	20,000	40,000	0	0	-> Limit of "only cash"

→ Sometimes, it may have limitations.

- You and your brother made an agreement. You promised that you would give the same amount of money that your brother would have at the end of every month.
 - Does this promise make your brother a good boy?

		March	April	May
(Income)	Allowance (Cash)	100,000	100,000	100,000
(Spending)	Transportation	30,000	25,000	30,000
	Snacks	12,000	40,000	20,000
	Buying books	20,000	20,000	0
(Income)	Selling books (Carrot Market)			18,000

→ We need to consider other things that have also monetary values.

(I.e., in this case, books have monetary value as well as cash.)

cashonoz zyzálm ozzet.

- You and your brother made an agreement. You promised that you would give the same amount of money that your brother would have at the end of every month.
 - Does this promise make your brother a good boy?

		March	April	May	June
(Income)	Allowance (Cash)	100,000	100,000	100,000	100,000
(Spending)	Transportation	30,000	25,000	30,000	30,000
	Snacks	12,000	40,000	20,000	20,000
	Buying books	20,000	20,000	20,000	20,000
(Spending)	Buying sneakers			30,000	
(Income)	Selling sneakers				80,000

 \rightarrow We need to consider other things that have also monetary values.

(I.e., in this case, sneakers have value as well as cash. And the sneakers create additional cash inflow in the end.)

- You and your brother made an agreement. You promised that you would give the same amount of money that your brother would have at the end of every month.
 - Does this promise make your brother a good boy?

	March	April	May
Allowance	100,000	100,000	100,000
Transportation	30,000	25,000	30,000
Snacks	12,000	40,000	0
Buying books	30,000	0	20,000
Buying game items			(-)50,000
Borrow money from his friend			(+)50,000
	Transportation Snacks Buying books Buying game items	Allowance 100,000 Transportation 30,000 Snacks 12,000 Buying books 30,000 Buying game items	Allowance 100,000 100,000 Transportation 30,000 25,000 Snacks 12,000 40,000 Buying books 30,000 0 Buying game items

→ Cash can be increased by borrowing money elsewhere.

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Recap the last class - Bakery Case # 2

- AP Bakery started its business on 1st of November.
 - All transactions were made by cash.

	Nov. 1st~Nov.30th	Dec. 1st ~ Dec. 31st	Jan. 1st ~ Jan. 31s t
Shop rent (deposit to the shop owner)	1,500,000		_
Shop monthly rent fee	500,000	500,000	500,000
Oven, tables, and chairs purchase	8,000,000		
Flour, sugar, and egg purchase	3,000,000	3,000,000	3,000,000
Number of baked muffins	10,000	10,000	10,000
Value of baked muffins	10,000,000	10,000,000	10,000,000
Number of sold muffins	8,000	9,000	9,500
Value of sold muffins	8,000,000	9,000,000	9,500,000
Electricity charge (paid on the 20th of every month)	200,000	600,000	900,000
Donation of muffins	-		
Salary for Tom and Sam	2,000,000	2,000,000	2,000,000
Dividend to the shareholders		3,000,000	9
Borrow money from a bank			10,000,000

Equity > 272 2 71/2?

Ban (055) Assets?

Recap the last class - Bakery Case # 2

- AP Bakery started its business on the 1st of November.
 - 1) How much cash did AP Bakery Inc. have at the end of every month?
 - 2) In which month did it make the biggest profit? How much was it?
 - 3) How can we improve this business?
 - 4) How much money did Jane receive in December? ১
 - - → Let's discuss more #5 question, the value of AP Bakery.

Any Questions? (Recap)

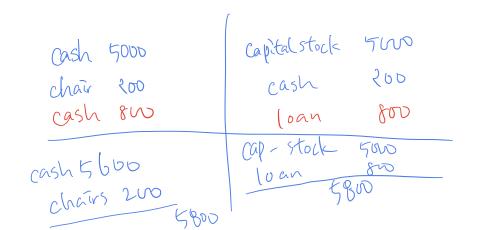
- In the previous example, we estimated the value of AP Bakery by:
- Adding items with positive value (+)
 - Subtracting items with negative value (-)
- Items with Positive Value
 - Cash on-hand, oven, chairs, and rent deposit
- Items with Negative Value
 - Bank loan

- Let's make our own simple examples!
- What is the value of AP Bakery Inc.?
 - Example #1)

It was established with \$5,000 of cash and there is no other transact ions.

- Example #2)

It was established with \$5,000 of cash, and AP Bakery bought new c hairs \$200. There is no other transactions. And the chairs are not use d. (= They can be sold with \$200 on the market.)



- · Let's make our own simple examples!
- What is the value of AP Bakery?
 - Example #1)

It was established with \$5,000 of cash and there is no other transact ions.

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Value of AP Bakery = $5,000 = $5,000 (Cash)
```

- Example #2)

It was established with \$5,000 of cash, and AP Bakery bought new c hairs \$200. There is no other transactions. And the chairs are not use d. (= They can be sold with \$200 on the market.)

Value of AP Bakery = \$5,000 = \$4,800 (Cash) + \$200 (Chairs)

- Let's make our own simple examples!
- What is the value of AP Bakery Inc.?
 - Example #2)

It was established with \$5,000 of cash, and AP Bakery bought new c hairs \$200. There is no other transactions. And the chairs are not use d. (= They can be sold with \$200 on the market.)

- Example #3)

It was established with \$5,000 of cash, and AP Bakery rented a shop by giving \$1,000 deposit. There is no other transactions. (Today is the first day of the shop rent contract. & No time value of money)

value: \$ 5, -

- Let's make our own simple examples!
- What is the value of AP Bakery Inc.?
 - Example #2)

It was established with \$5,000 of cash, and AP Bakery bought new c hairs \$200. There is no other transactions. And the chairs are not use d. (= They can be sold with \$200 on the market.)

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Value of AP Bakery = $5,000 = $4,800 (Cash) $200 (Chairs)
```

- Example #3)

It was established with \$5,000 of cash, and AP Bakery rented a shop by giving \$1,000 deposit. There is no other transactions. (Today is the first day of the shop rent contract. & No time value of money)

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Value of AP Bakery = \$5,000 = \$4,000 \text{ (Cash)} + \$1,000 \text{ (Deposit)}_{16}
```

- · Let's make our own simple examples!
- What is the value of AP Bakery?
 - Example #1)

It was established with \$5,000 of cash and there is no other transact ions.

- Example #4)

It was established with \$5,000 of cash, and AP Bakery borrowed \$8 00 from a bank. There is no other transactions. (We assume there is no time value of money.)

- · Let's make our own simple examples!
- What is the value of AP Bakery?
 - Example #1)

It was established with \$5,000 of cash and there is no other transact ions.

```
Value of AP Bakery = $5,000 = $5,000 (Cash)
```

- Example #4)

It was established with \$5,000 of cash, and AP Bakery borrowed \$8 00 from a bank. There is no other transactions. (We assume there is no time value of money.)

Value of AP Bakery =
$$\$5,000 = \$5,800 \text{ (Cash)} - \$800 \text{ (bank loan)}$$

Should pay-back

- Let's make our own simple examples!
- What is the value of AP Bakery?
- Example #2)

It was established with \$5,000 of cash, and AP Bakery Inc. bought ne w chairs \$200. There is no other transactions. And the chairs are not us ed. (= They can be sold with \$200 on the market.)

- Example #5)

It was established with \$5,000 of cash, and AP Bakery lent \$300 to Ja mie for one year. Jamie will pay back \$300 in 2023. There is no other tr ansactions. (We assume there is no time value of money.) What is the value of AP Bakery in 2022?

- Let's make our own simple examples!
- What is the value of AP Bakery?
- Example #2)

It was established with \$5,000 of cash, and AP Bakery Inc. bought new chairs \$200. There is no other transactions. And the chairs are not used. (= They can be sold with \$200 on the market.)

Value of AP Bakery =
$$\$5,000 = \$4,800 \text{ (Cash)} + \$200 \text{ (Chairs)}$$
- Example #5)

It was established with \$5,000 of cash, and AP Bakery lent \$300 to Jam ie for one year. Jamie will pay back \$300 in 2023. There is no other trans actions. (We assume there is no time value of money.) What is the value of AP Bakery during 2022?

Value of AP Bakery =
$$\$5,000 = \$4,700 \text{ (Cash)} + \$300 \text{ (lending money)}$$

- · Let's make our own simple examples!
- What is the value of AP Bakery?
- Example #5)

It was established with \$5,000 of cash, and AP Bakery lent \$300 to J amie for one year.

- Example #5)

It was established with \$5,000 of cash, and AP Bakery donated \$300 to the University. What is the value of AP Bakery in 2022?

- · Let's make our own simple examples!
- What is the value of AP Bakery?
- Example #5)

It was established with \$5,000 of cash, and AP Bakery lent \$300 to Jam ie for one year.

Value of AP Bakery =
$$\$5,000 = \$4,700 \text{ (Cash)} + \$300 \text{ (lending money)}$$

- Example #5)

It was established with \$5,000 of cash, and AP Bakery donated \$300 to our University. What is the value of AP Bakery in 2022?

- · Let's make our own simple examples!
- What is the value of AP Bakery?
 - Example #1)

It was established with \$5,000 of cash and there is no other transact ions.

- Example #6)

It was established with \$5,000 of cash, and AP Bakery give dividend to its shareholders. The dividend was \$700. There is no other transactions.

value: \$4,300

- · Let's make our own simple examples!
- What is the value of AP Bakery?
 - Example #1)

It was established with \$5,000 of cash and there is no other transact ions.

```
Value of AP Bakery = $5,000 = $5,000 (Cash)
```

- Example #6)

It was established with \$5,000 of cash, and AP Bakery give dividend to its shareholders. The dividend was \$700. There is no other transactions.

Value of AP Bakery = \$4,300 = \$4,300 (Cash)

Recap the last class - Bakery Case # 2

- AP Bakery started its business on 1st of November.
 - All transactions were made by cash.

	Nov. 1st~Nov.30th	Dec. 1st ~ Dec. 31st	Jan. 1st ~ Jan. 31s t
Shop rent (deposit to the shop owner)	1,500,000		
Shop monthly rent fee	500,000	500,000	500,000
Oven, tables, and chairs purchase	8,000,000		_
Flour, sugar, and egg purchase	3,000,000	3,000,000	3,000,000
Number of baked muffins	10,000	10,000	10,000
Value of baked muffins	10,000,000	10,000,000	10,000,000
Number of sold muffins	8,000	9,000	9,500
Value of sold muffins	8,000,000	9,000,000	9,500,000
Electricity charge (paid on the 20th of every month)	200,000	600,000	900,000
Donation of muffins	-		
Salary for Tom and Sam	2,000,000	2,000,000	2,000,000
Dividend to the shareholders		3,000,000	25
Borrow money from a bank 🔵			10,000,000

- Remember the rules that we made from own simple examples!
- What is the value of AP Bakery at the end of Jan.?
 - Cash? add
 - Chair? add
 - Rent deposit? add
 - Bank loan? deduct
 - Dividend? do nothing

Consulting Company Case #1

- Setting
 - Jane, Sam, and Tom and studied Data science at the same university.
 - Three of them decided to open a big data consulting firm.
 - They invested their own money:

```
Jane ($12,000), Sam ($6,000), Tom ($2,000) 6:3:1 \rightarrow total $70,000
```

- They made a corporation for their consulting business. (The name of the corporation is "ST Consulting")
- For now, they hired Sally and Nancy. (Only Sally and Nancy are the employees of the company.)

cash 2n

gain in

cap stock 5n

cash

cash

cash Loss (Salary employee) 2000 ()bJ Cash 1000 Cash 5000 Chair 200 cash loan

ST Consulting Case #1

• ST Consulting started its business on 1st of November.

지영금 \$20,000

	Nov. 1st~Nov.30th	Dec. 1st ~ Dec. 31st	Jan. 1st ~ Jan. 31s t
Consulting Revenue (Cash)	\$1,000	\$5,000	\$6,000
Salary Expense (Cash)	\$2,000	\$2,000	\$2,000

How much cash did ST Consulting have at the end of each month?

Nov \$ 19,000 / Dec \$22,000 / Jan \$ 26,000

What were the value of ST Consulting at the end of each month?

(We mainly are looking at the past transactions, not the future events.)

Ly accounting?

Same with Cash they have at the end of each mouth.

\$ 19,000 /\$ 27,000 /\$ 26,000

Nov Dec Jan

Value of End of period > Starting vehic + each north profit

• ST Consulting started its business on 1st of November.

Start from \$ 20,000

	Nov. 1st~Nov.30th	Dec. 1st ~ Dec. 31st	Jan. 1st ~ Jan. 31s t
Consulting Revenue (Cash)	\$1,000	\$5,000	\$6,000
Consulting Revenue (on credit, pay later)	\$0	\$1,000	\$2,000
Salary Expense (Cash)	\$2,000	\$2,000	\$2,000

• What were the profits of each month? (On-credit revenue will be paid one year lat er. At this moment, the customers are rich. They will pay the bill one year later.)

• How much cash did ST Consulting have at the end of each month? 4 / 9,000

(We are mainly <u>looking at the past transactions</u>, not the future events.) 4 19,000 4 79,000



Income Statement (Statement of Income)

• ST Consulting started its business on 1st of November.

	Nov. 1st~Nov.30th	Jan Dec. 1st ~ Dec. 31st	. 1st ~ Jan. 31s t
Consulting Revenue (Cash)	\$1,000	\$5,000	\$6,000
Consulting Revenue (on credit, pay later)	\$0	\$1,000	\$2,000
Salary Expense (Cash)	\$2,000	\$2,000	\$2,000
Electricity Expense (Cash)	\$100	\$300	\$600

What were the profits of each month? (On-credit revenue will be paid one year lat
er. At this moment, the customers are rich. They will pay the bill one year later.)

· Making a table to show the profits

	Nov. 1st~Nov.30th	Dec. 1st ~ Dec. 31st	Jan. 1st ~ Jan. 31s t
Consulting Revenue (Cash) + (credit)	\$1,000	\$6,000	\$8,000
Salary Expense	\$2,000	\$2,000	\$2,000
Electricity Expense	\$100	\$300	\$600
Net income	\$-1,100	\$3,700	\$5,400

Income Statement (Statement of Income)

• Income Statement starting - endry date Corporation Charten

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Company name

Statement of Comprehensive Income

For the Year Ended December 31, 2021 and 2020 *Periods*

	2021 (202١. ١٥ ٥٠ ١٠ ٢٤. ٤)	2020
Consulting Revenue (Cash) Gam	\$10,000	\$60,000
(-) Salary Expense (55	\$20,000	\$20,000
() Electricity Expense (555	\$1,000	\$3,000
Net income Gar or (055	\$(11,000)	\$37,000

Consulting Company Case #3

- Setting
 - Jane, Sam, and Tom and studied Data-mining at the same university.
 - Three of them decided to open a big data consulting firm.
 - They invested their own money:

```
Jane ($12,000), Sam ($6,000), Tom ($2,000)
```

- They made a corporation for their consulting business. (The name of the corporation is "ST Consulting")
- For now, they hired Sally and Nancy. (Only Sally and Nancy are the employees of the company.)
- ST Consulting borrowed \$9,000 from a bank for ten years.

• ST Consulting started its business on 1st of November.

Starting: 20,000+9000	Nov. 1st~Nov.30th	Dec. 1st ~ Dec. 31st	Jan. 1st ~ Jan. 31s t
Consulting Revenue (Cash)	\$1,000	\$5,000	\$6,000
Consulting Revenue (on credit, pay later)	\$0	\$1,000	\$2,000
Salary Expense (Cash)	\$2,000	\$2,000	\$2,000
Interest Expense (Cash)	\$40	\$40	\$40

• What were the profits of each month? (On-credit revenue will be paid one year lat er. At this moment, the customers are rich. They will pay the bill one year later.)

• How much cash did ST Consulting have at the end of each month?

• What were the value of ST Consulting at the end of each month? (We are mainly looking at the past transactions, not the future events.)

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ST Consulting	Case #3	X	7000 olisu	
• ST Consulting started its business on 1st of November.				
	Nov. 1st~Nov.30th	Dec. 1st ~ Dec. 31st	Jan. 1st ~ Jan. 31s t	
Consulting Revenue (Cash)	\$1,000	\$5,000	\$6,000	
Consulting Revenue (on credit, pay later)	\$0	\$1,000	\$2,000	
Salary Expense (Cash)	\$2,000	\$2,000	\$2,000	
Interest Expense (Cash)	\$40	\$40	\$40	

- What were the profits of each month? (On-credit revenue will be paid one year lat er. At this moment, the customers are rich. They will pay the bill one year later.)
- How much cash did ST Consulting have at the end of each month?
- What were the value of ST Consulting at the end of each month? (We are mainly <u>looking at the past transactions</u>, not the future events.)
- How can we describe the status of ST Consulting at the end of each month? Any idea?

* income Statement 367.

20000 - (040 + 2920 + 5960 = 20000 TOTAL

> 34880 - 9000 + "3000"

Any Questions? (Recap)

Financial Statements

- Accounting Principles

2022. 2.

Dr. Yangin Yoon

Agenda

- Recap the last class
- The Value of Corporations: Simplified Examples
- The Value of Corporations: Multiple Periods
- Income Statement
- Balance Sheet
- Asset, Liability, Equity, Gain, Loss

Consulting Company Case #3

- Setting
 - Jane, Sam, and Tom and studied Data-mining at the same university.
 - Three of them decided to open a big data consulting firm.
 - They invested their own money:

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Jane ($12,000), Sam ($6,000), Tom ($2,000)
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Interest Expense (Cash)	\$40	\$40	\$40

- What were the profits of each month? (On-credit revenue will be paid one year lat er. At this moment, the customers are rich. They will pay the bill one year later.)
- How much cash did ST Consulting have at the end of each month?
- What were the value of ST Consulting at the end of each month? (We are mainly looking at the past transactions, not the future events.)

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Salary Expense (Cash)	\$2,000	\$2,000	\$2,000
Interest Expense (Cash)	\$40	\$40	\$40

- What were the profits of each month? (On-credit revenue will be paid one year lat er. At this moment, the customers are rich. They will pay the bill one year later.)
- How much cash did ST Consulting have at the end of each month?
- What were the value of ST Consulting at the end of each month? (We are mainly looking at the past transactions, not the future events.)
- How can we describe the status of ST Consulting at the end of each month? $_{5}$ Any idea?

• ST Consulting started its business on 1st of November.

	Nov. 1st~Nov.30th	Dec. 1st ~ Dec. 31st	Jan. 1st ~ Jan. 31s t
Consulting Revenue (Cash)	\$1,000	\$5,000	\$6,000
Consulting Revenue (on credit, pay later)	\$0	\$1,000	\$2,000
Salary Expense (Cash)	\$2,000	\$2,000	\$2,000
Interest Expense (Cash)	\$40	\$40	\$40

• How can we describe the status of ST consulting at the end of each month

NOV.3UTN	Dec. 31st	Jan. 31st
\$27,960	\$30,920	\$34,880
\$0	\$1,000	\$3,000
\$27,960	\$31,920	\$37,880
\$9,000	\$9,000	\$9,000
\$18,960	\$22,920	\$28,880
	\$0 \$27,960 \$9,000	\$27,960 \$30,920 \$0 \$1,000 \$27,960 \$31,920 \$9,000 \$9,000

Balance Sheet

Balance Sheet

e	ST Consulting		Company nam
	Balance Sheet		
	——————————————————————————————————————		Point in time
		2021	Carlos data
	ASSETS (positive)		Specific date
	Cash	\$30,920	
	Receivable	\$1,000	
A	TOTAL ASSETS	\$31,920	
	LIABILITIES AND EQUIT	Υ	
	Bank Loan	\$9,000	
$\mathfrak D$	TOTAL LIABILITIES EQUITY	\$9,000	
(Capital Stock (4th)	\$20,000	
	Retained Earnings (accumulated profits)	\$2,920	
C	Capital Stock (14th) Retained Earnings (accumulated profits) TOTAL EQUITY of Value	\$22,920	7

\$31,920

(= A-B

TOTAL LIABILITIES and EQUITY

Balance Sheet

Balance Sheet

ST Consulting Balance Sheet December 31, 2021

Company name

Point in time

ASSETS		LIABILITIES AND EQUITY	
		LIABILITIES A	
Cash	\$30,920	Bank Loan	\$9,000
Receivable	\$1,000	TOTAL LIABILITIES	\$9,000
TOTAL ASSETS	\$31,9	Capital Stock Retained Earnings TOTAL EQUITY TOTAL LIABILITIES and EQUITY ANTHO ANTHO ATT	\$20,000 \$2,920 \$22,920 \$31,
20			920

D = C

Important Concepts



Gain, Loss, Asset, Liability, Capital

(Assets)

Future cash out-flow , postive

• Liability: Future cash out-flow

• Equity: The value of corporation

Gain: Increase of equity

• Loss: Decrease of equity

used in Income statements

Any Questions?

Remaining Part of the Week #1