



# Mongkol

ITCS335 Introduction to E-business Systems

2

026 | 120 | 179 | 181 | 210



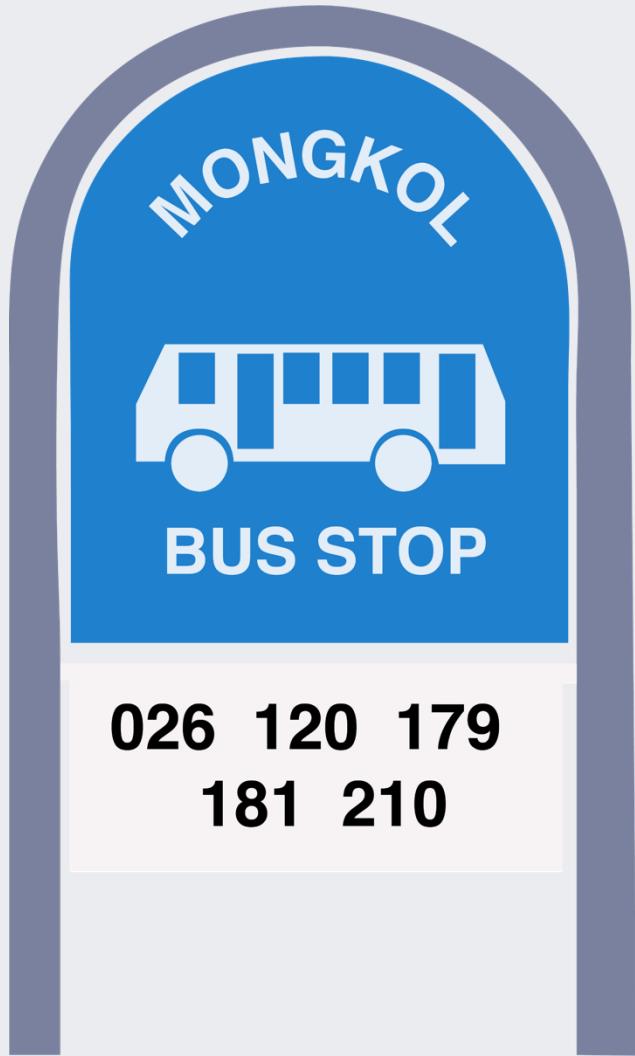


# Mongkol

ITCS335 Introduction to E-business Systems

2

026 | 120 | 179 | 181 | 210



## MEMBERS

**Mr. Netithorn**  
**Miss Suphavadee**  
**Miss Ponnapassorn**  
**Miss Thadeeyaa**  
**Miss Ravikarn**

**Inamnuay**  
**Cheng**  
**Iamborisut**  
**Duangkaew**  
**Jarungjittawas**

**6488026**  
**6488120**  
**6488179**  
**6488181**  
**6488210**



## INTRO

[Prototype](#)[Solution](#)[Customer Information](#)[Customer Interview](#)[Financial Estimation](#)[Future Plan](#)

### INTRO

Our business owners of **electric buses** have jointly prepared a business plan to understand the direction of the organization's work. The next work plan will begin to lay out a clearer customer plan to make the solution set to your target customer. We started with a **prototype bus design** and **application** plan including calculating income and expenses that will occur. And finally, we will have plans for future goals in order to make the organization have clear goals at work.



Prototype

**Let's see our  
Prototype**



Solution

x Bus



Free Wi-Fi



The luggage  
storage area

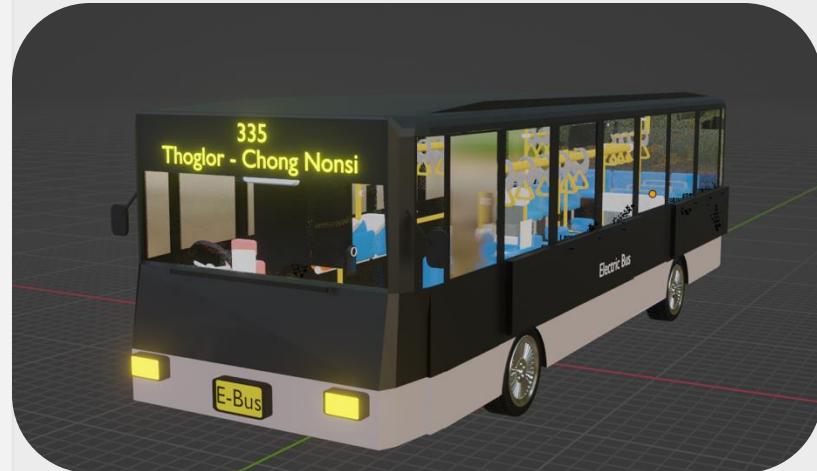


Screen of location



Solution

x Bus



Appearance



Scanning Weapon



Scanning Palm Device



Solution

x Bus



Charger

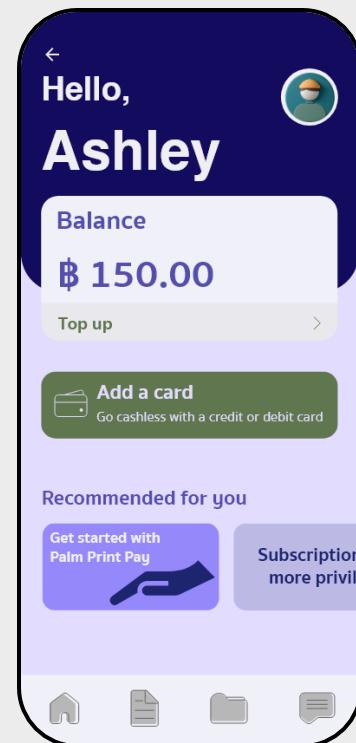


SOS Call Point

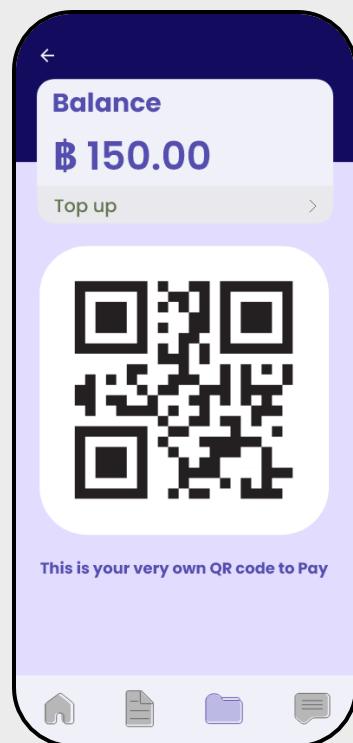


Solution

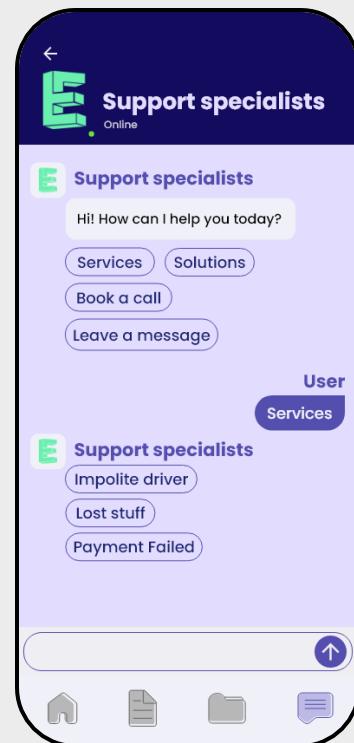
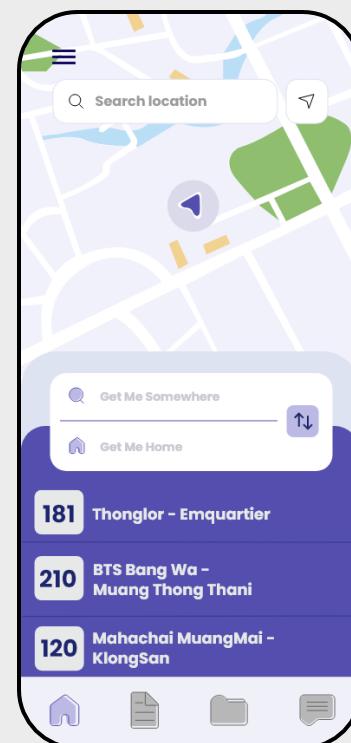
x Application



Payment / QR-Code



The nearest bus for the best path and arrival time



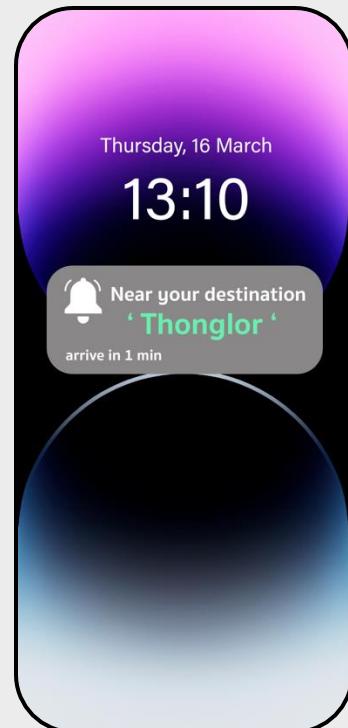
Chat for feedback



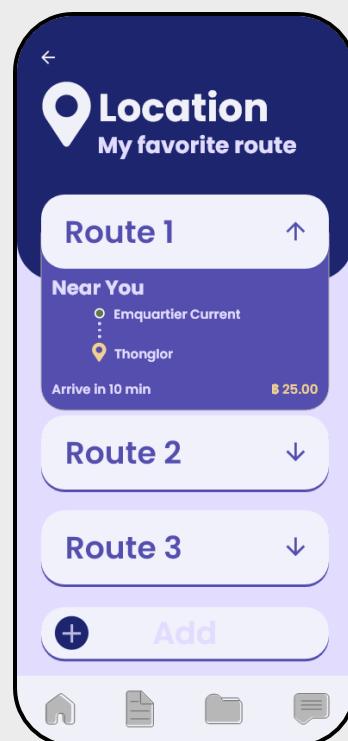
Solution

x Application

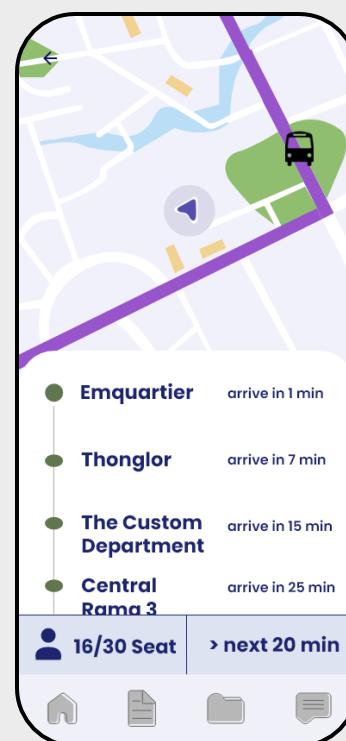
x Subscription



Notification of your destination



travel plans and Showing price



Number of available seats



Customer Information

Students

x Fare

## Demographic

**Age:** 13-22 years old

**Location:** Chong Nonsi, Silom

## Occupation

**Job:** Student

**Industry:** High school or University

**Income:** Below 15,000 baht

**Time of travel:** 05.00 am. - 18.00 pm.



Students

## Problem

### Frequently takes the bus

- Using cash is not convenient
- Waiting too long
- No seat
- crowded

### Rarely takes the bus

- Traveling alone feels unsafe sometimes.
- The bus was dirty and there was a lot of smoke from outside.



## Customer Information

## Worker

## x Wait time

### Demographic

**Age:** 23-55 years old

**Location:** Sukhumvit, Thonglor, Ekamai, Chong Nonsi, or Phetchaburi Road

### Occupation

**Job:** Employee

**Industry:** Company (in Bangkok)

**Income:** 15,000-25,000 baht

**Time of travel:** 06.00 am. - 20.00 pm.



## Worker

### Problem

#### Frequently take bus

- Waiting too long time
- The bus did not arrive on time according to the stated schedule.
- No seats

#### Take other transportation

- The bus is very dirty.
- We do not want to get messy, sweaty, or smell smoke from the car.



Customer Information

Tourists/ Foreigners

x Signpost

## Demographic

**Age:** 25-54 years old

**Location:** Sukhumvit, Thonglor, Ratchadaphisek Road, Benchakitti Park, or Phetchaburi Road

## Occupation

**Job:** Tourist, Employee

**Income:** 30,000-70,000 baht

**Time of travel:** 10.00 am. - 22.00 pm.



Tourists/  
Foreigners

## Problem

### Difficult to use

- Don't understand which stop to get off.

### Thailand's bus signs are confusing

- Signs aren't translated well.
- Finding information about bus routes is not easy.

### Air Pollution



Customer Information

Advertisements

x Price

## Demographic

**Type:** Companies and Fanclub  
**Location:** Everywhere that can be seen by many people.

## Occupation

**Job:** Advertising Company,  
Company, Fanclub/Fanbase  
**Income:** 30,000-300,000 baht

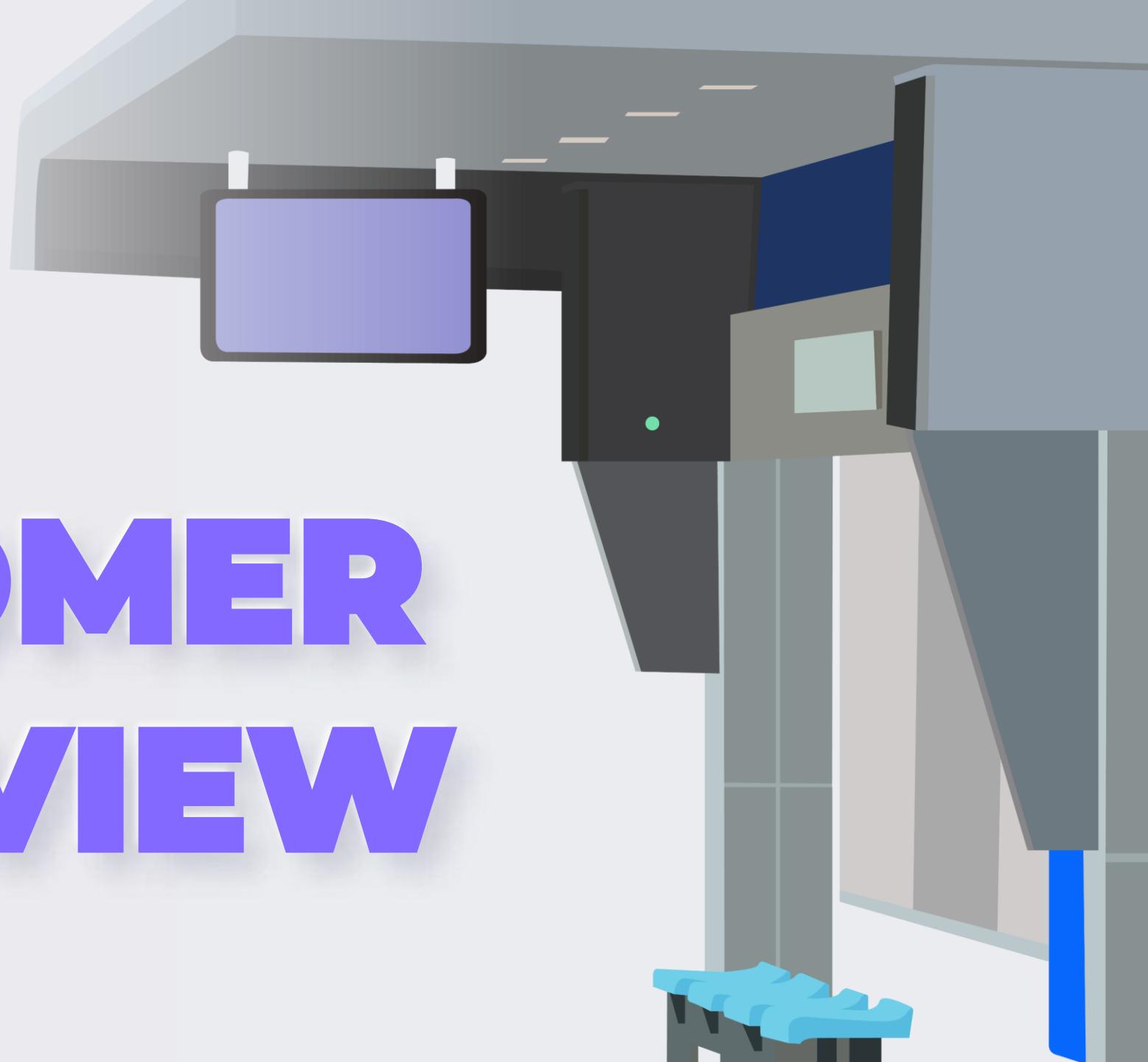


## Problem

**The price is expensive**  
- Fanclub/Fanbase mostly are students but want to support the project promoting the artists

Advertisements

# CUSTOMER INTERVIEW



## Clip Interview



## Interview Summary

### Student

**How we can  
Solve your  
pains**

**What idea  
you like**

**What idea  
you don't  
like**

**What should  
be improved**



**Poon**

Showing arrive  
time – don't  
have to wait

Application and  
palm print  
scanning – easy  
to use and  
facilitate

Souvenirs – not  
interesting

No



**Rob**

The payment  
method is  
convenience – not  
prefer paying by  
cash

Showing  
available seat  
application –  
easy use

Using PDPA –  
can use QR  
Code  
Scan weapon -  
unnecessary

No

## Interview Summary

### Worker



Oar

**How we can  
Solve your  
pains**

showing available  
seats - don't have  
seat arrival time -  
take long time to  
wait

**What idea  
you like**

charging cable  
palm scanning

**What idea  
you don't  
like**

scanning  
weapon - not  
match her main  
need

**What should  
be improved**

application  
should have  
Thai language  
Have restroom

### Foreigner



Jacob

**use electricity  
to be main  
power (EV Bus)  
- smoke**

bus &  
application is  
impressive  
palm scanning

**scanning  
weapon -not  
necessary**

register for  
palm print is too  
difficult to  
foreigner

## Interview Summary

### Advertiser



Nana

**How we can  
Solve your  
pains**

**What idea  
you like**

**What idea  
you don't  
like**

**What should  
be improved**

Pain: price of  
ads is high  
<At first, our  
business don't  
match her  
needs>

the place for  
placing the  
advertiser is  
great the route  
- can get  
attention to  
many people

Price is too  
high

Should have  
more options of  
timing for ads

**What we do? Changing the price & add more options**

# Financial Estimation



**Starting point**  
**[main cost items]**



# COST ITEMS | Fixed Assets

	Amount	Depreciation (years)
Land for Bus Parking	฿ 1,000,000.00	Not Depreciation
Office	฿ 690,000.00	20
Equipment	฿ 50,000.00	7
Furniture	฿ 20,000.00	5
<b>TOTAL</b>	<b>฿ 1,760,000.00</b>	

**Operating expense  
in each month  
[main cost items]**



# COST ITEMS | Payroll

	No.	pay / month	pay / month	pay / month
R & D staff	1	฿ 200.00	40	฿ 34,667.00
Production Engineering staff	1	฿ 270.00	40	฿ 46,800.00
Software development staff	1	฿ 280.00	40	฿ 48,533.00
Marketing staff	1	฿ 220.00	40	฿ 38,133.00
Customer support staff	1	฿ 120.00	40	฿ 20,800.00
Driver	3	฿ 115.00	35	฿ 52,325.00
TOTAL PER MONTH			฿ 241,258.00	



# COST ITEMS | Operating Expense

January

Start on January 2023

	Amount		Amount
Supplies (BUS)	฿ 707,200.00	Vehicle Assembly	฿ 450,000.00
R & D	฿ 15,833.00	Software License	฿ 170,000.00
Insurance (BUS)	฿ 5,000.00	Google Maps API	฿ 4,760.00
Electricity (BUS)	฿ 4,163.00	WIFI Rent	฿ 3,000.00
Maintenance (BUS)	฿ 1,500.00	<b>TOTAL</b>	฿ 1,361,456.00



# COST ITEMS | Operating Expense

January

Start on January 2023

**Training Cost**

**Amount**

฿ 20,000.00

**Electricity and Water (Office)**

฿ 14,000.00

**Souvenir**

**Amount**

฿ 56,000.00

**Advertising**

฿ 278,000.00

**TOTAL (2)**

฿ 368,000.00

**TOTAL (1)**

฿ 1,361,456.00

**+**

฿ 368,000.00

**=**

฿ 1,729,456.00

**TOTAL EXPENSE FOR FIRST MONTH**



# COST ITEMS | Operating Expense

Other Month

Start on January 2023

	Amount		Amount	
Supplies (BUS)	×	Price per 1 Bus	×	Price per 1 Bus
R & D	฿ 15,833.00		×	Prepaid 3 year
Insurance (BUS)	฿ 5,000.00		฿ 4,760.00	
Electricity (BUS)	฿ 4,163.00		฿ 3,000.00	
Maintenance (BUS)	฿ 1,500.00		฿ 34,256.00	
		TOTAL		



# COST ITEMS | Operating Expense

Other Month

Start on January 2023

**Training Cost**

**Amount**



1 course for 1 year

**Electricity and Water (Office)**

฿ 14,000.00

**Souvenir**

**Amount**



Not order more in this year

**Advertising**



Not order more in this year

**TOTAL (2)**

฿ 14,000.00

**TOTAL (1)**

฿ 34,256.00



**TOTAL (2)**

฿ 14,000.00



**TOTAL EXPENSE FOR FIRST MONTH**

฿ 48,256.00



# COST ITEMS | Operating Expense

EACH YEAR  
Start on January 2023

**2023**

฿ 2,260,270.00



+ Other Expenses  
(Depreciation+Line of Credit)



฿ 2,413,063.00

**2024**

฿ 1,082,642.00



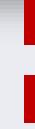
+ Other Expenses  
(Depreciation+Line of Credit)



฿ 1,245,176.00

**2025**

฿ 1,119,489.00



+ Other Expenses  
(Depreciation+Line of Credit)



฿ 1,282,023.00

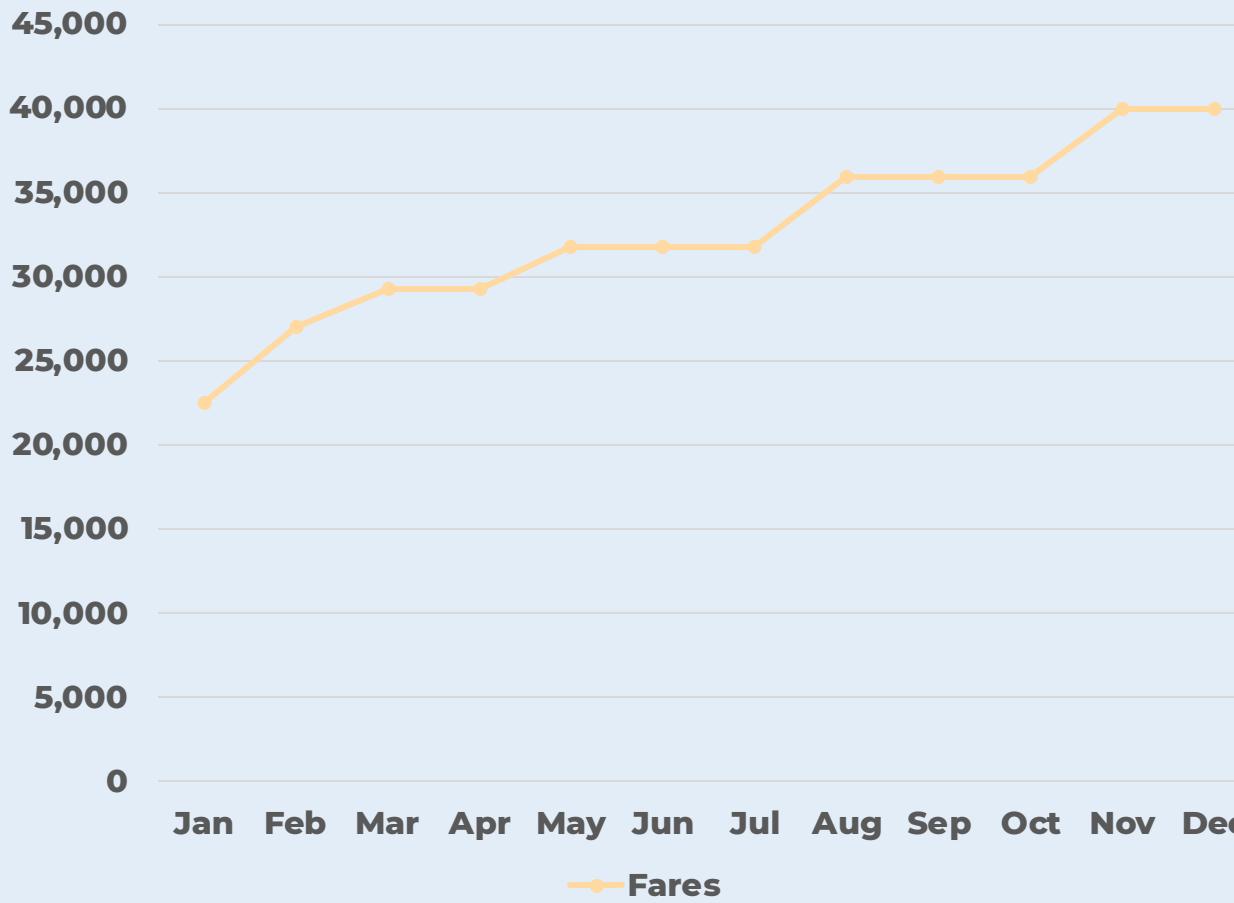
# SALES FORECAST





# Sale Revenue [Fares]

Year 1 Revenue



Distance	Fares
0 – 4 KM	25 Baht
4 – 8 KM	28 Baht
8 – 12 KM	31 Baht
12 – 16 KM	34 Baht
16 – 20 KM	37 Baht
20 – 25 KM	40 Baht



# COGS - Fares

fares	month	price	1 month
Bus	120	1157200	9643.333333
Bus maintainance	1	1500	1500
Electricity Expense	1	4162.5	4162.5
WIFI	1	3000	3000
Bus Insurance	1	5000	5000
R&D Cost	12	190000	15833.33333
Salaries and Insurance	12	3271463	272621.9167
Training Course	12	20000	1666.666667
Software License	36	510000	14166.66667
Register Machine	60	50000	833.3333333
API Google	1	4760	4760
Total price/month		333187.75	

**Total price / month = 331,187.75 Baht**

**Expected customer = 32,600 people**

**Sale price per unit = 34 Baht**

**Expense from using the Omise API  
= 3.65% of transaction with VAT7%**

**COGS per unit = 11.55 Baht**



# Sale Revenue [Souvenirs]

Keychain	Price
Flashing light	75 Baht
Tag location	45 Baht

## 3D PVC keychain - COGS

3D PVC keychain	one	price
PVC Finish goods	1	55

Total price/month 55 Baht

**COGS per unit = 55 Baht**

## Acrylic keychain - COGS

Acrylic keychain	one	price
Acrylic Finish goods	1	35

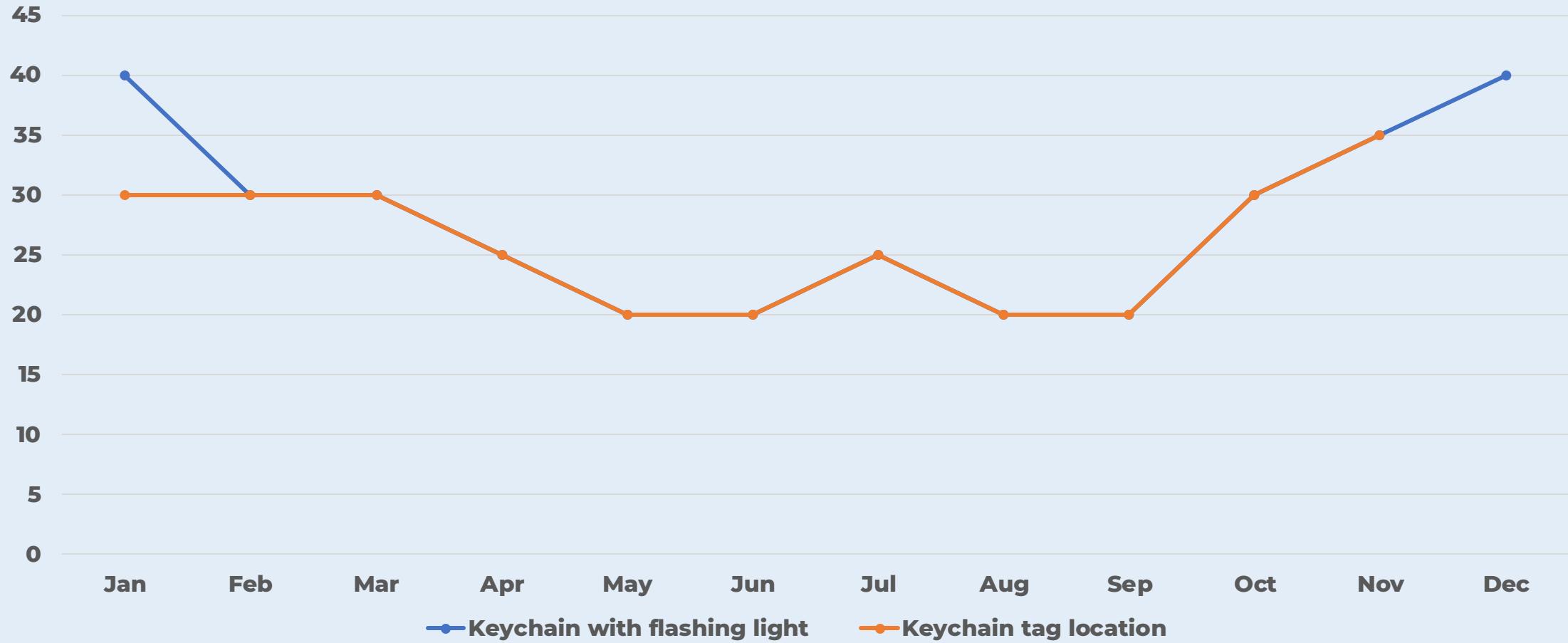
Total price/month 35 Baht

**COGS per unit = 35 Baht**



# Sale Revenue [Fares]

Year 1 Revenue





# Advertisements Revenue [Advertisements]

On Bus	Price
2 Weeks	30,000 Baht
1 Month	60,000 Baht

On Application	Price
2 Weeks	2,500 Baht
1 Month	5,000 Baht

## Advertising on the bus - COGS

Advertisement - 2 week	days	price
Bus Sticker	14	5000
Car Service Stickers	14	9000
Total price/month		14000

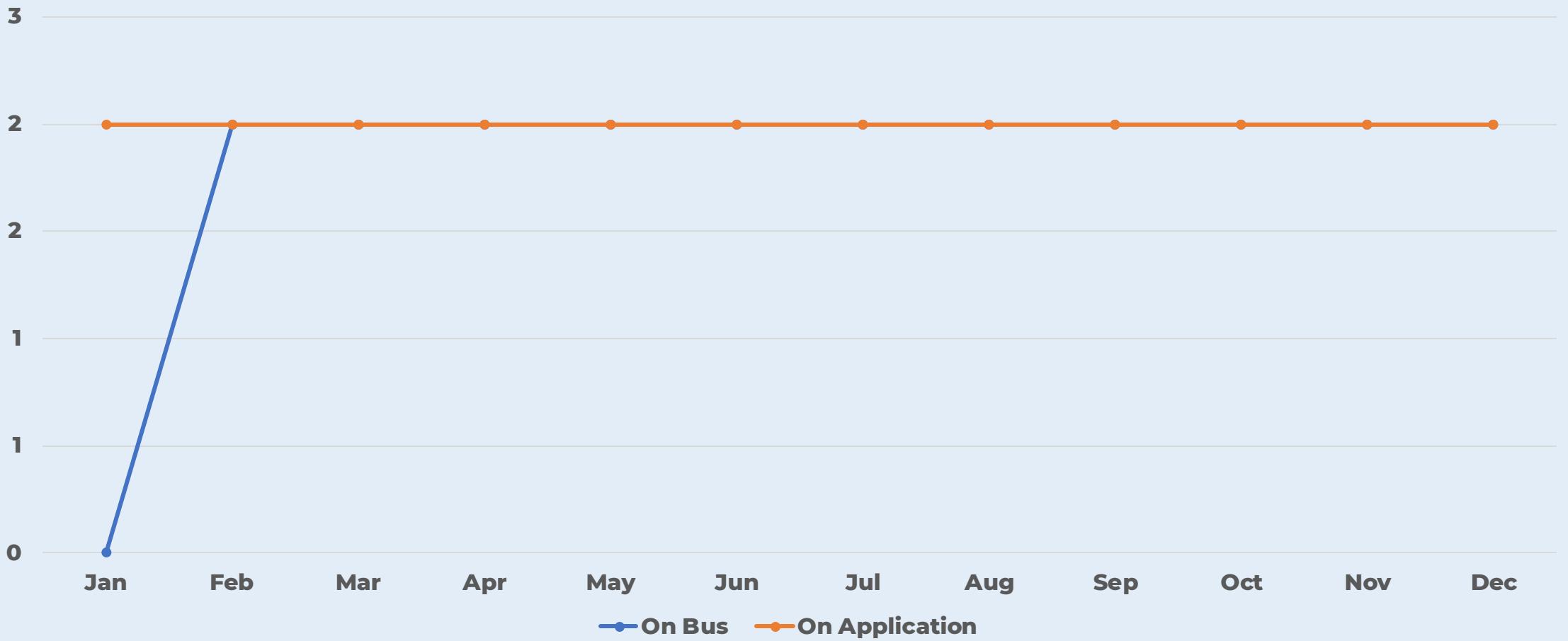
## All Advertisements - COGS

**COGS per unit = 14,000 Baht**



# Advertisements Revenue [Advertisements]

Year 1 Revenue





# Subscription Revenue [Subscription]

Year 1 Revenue

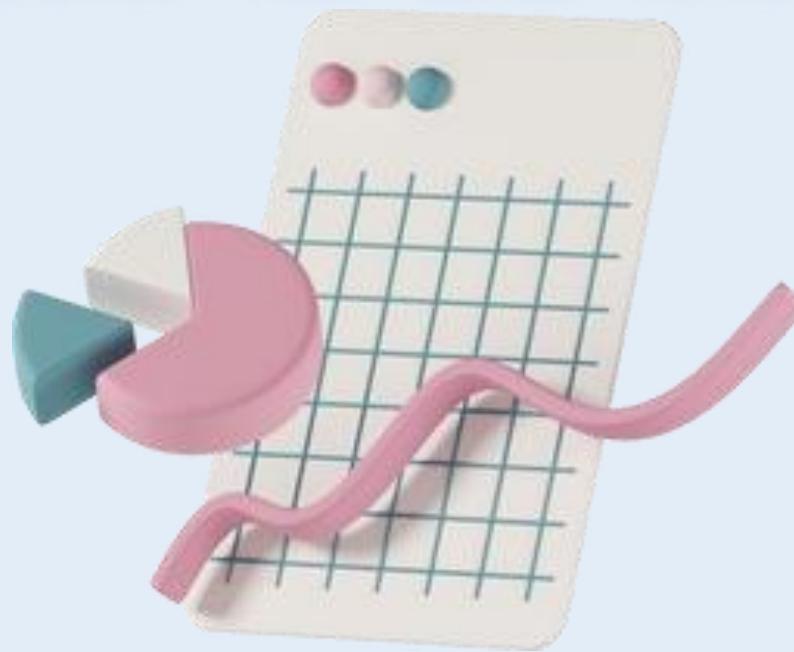
More Features

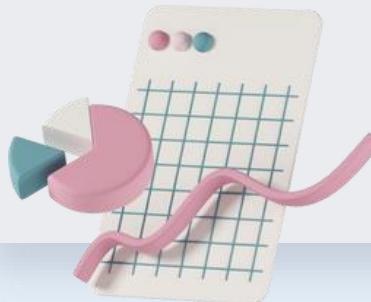
49 Baht / Month

COGS per unit = 15.87 Baht



# INCOME STATEMENT

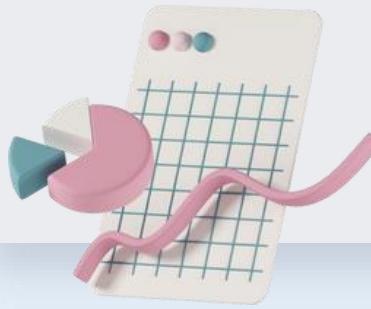




# Income Statement

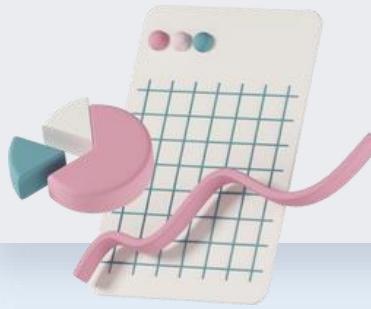
## 3 Years Revenues

Fares	44,616,585 Baht
Keychain with flashing light	84,270 Baht
Keychain tag location	49,053 Baht
Advertising on bus 2 weeks	2,213,640 Baht
Advertising on app 2 weeks	4,427,200 Baht
Subscription Revenue	755,992 Baht
<b>Total</b>	<b>52,146,740 Baht</b>



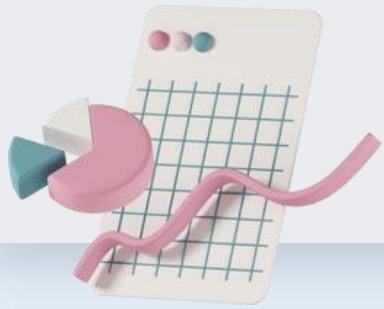
# Income Statement

Revenue	2023	2024	2025
Fares	13,302,500	14,233,675	17,080,410
Souvenirs - Keychain with flashing light	25,125	26,884	32,261
Souvenirs - Keychain tag location	14,625	15,649	18,779
Advertisement - on bus 2 week	660,000	706,200	847,440
Advertisement - on app 2 week	1,320,000	1,412,400	1,694,880
Subscription	225,400	241,178	289,414
<b>Total Revenue</b>	<b>\$ 15,547,650</b>	<b>100%</b>	<b>\$ 16,635,986</b>
			<b>100%</b>
			<b>\$ 19,963,183</b>
			<b>100%</b>



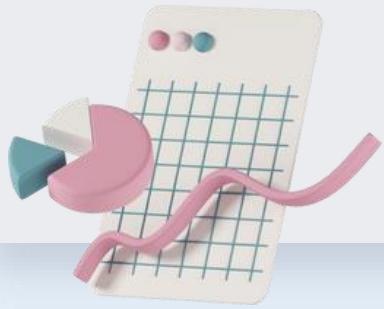
# Income Statement

<b>Cost of Goods Sold</b>						
Fares	4,518,293		4,834,574		5,801,488	
Souvenirs - Keychain with flashing light	18,425		19,715		23,658	
Souvenirs - Keychain tag location	11,375		12,171		14,606	
Advertisement - on bus 2 week	308,000		329,560		395,472	
Advertisement - on app 2 week	308,000		329,560		395,472	
Subscription	72,984		78,093		93,711	
<b>Total Cost of Goods Sold</b>	<b>5,237,077</b>	34%	<b>5,603,673</b>	34%	<b>6,724,407</b>	34%
<b>Gross Margin</b>	<b>10,310,573</b>	66%	<b>11,032,313</b>	66%	<b>13,238,776</b>	66%
<b>Payroll</b>	<b>2,895,100</b>		<b>3,518,419</b>		<b>3,957,818</b>	
<b>Operating Expenses</b>						
Supplies (Bus)	707,200	-	-	-	-	-
Vehicle Assembly	450,000	-	-	-	-	-
Research and Development (Bus)	190,000		199,500		209,475	
WIFI Rent	36,000		37,080		38,192	
Insurance (Bus)	60,000		61,800		63,654	
Electricity Expense (Bus)	49,950		51,449		52,992	
Bus maintenance	18,000		18,900		19,845	
Training Cost	20,000		20,600		21,218	
Electricity and Water Expense (Office)	168,000		173,040		178,231	
Souvenir (Finished Product)	672,000		705,600		740,880	
Advertising Expense	278,000		286,340		294,930	
API	57,120		58,834		60,599	
Software License	170,000		175,100		180,353	
0	-	-	-	-	-	-
0	-	-	-	-	-	-
Other Expense 1						
Other Expense 2						
<b>Total Operating Expenses</b>	<b>\$ 2,876,270</b>	18%	<b>\$ 1,788,242</b>	11%	<b>\$ 1,860,369</b>	9%
<b>Income (Before Other Expenses)</b>	<b>\$ 4,539,203</b>	29%	<b>\$ 5,725,652</b>	34%	<b>\$ 7,420,588</b>	37%
<b>Other Expenses</b>						
Amortized Start-up Expenses	661,087		661,087		661,087	
Depreciation	45,643		45,643		45,643	
Interest						
Commercial Loan	-		-		-	
Commercial Mortgage	-		-		-	
Credit Card Debt	-		-		-	
Vehicle Loans	-		-		-	
Other Bank Debt	-		-		-	
Line of Credit	107,150		116,891		116,891	
Bad Debt Expense	-		-		-	
<b>Total Other Expenses</b>	<b>\$ 813,880</b>	5%	<b>\$ 823,621</b>	5%	<b>\$ 823,621</b>	4%



# Income Statement

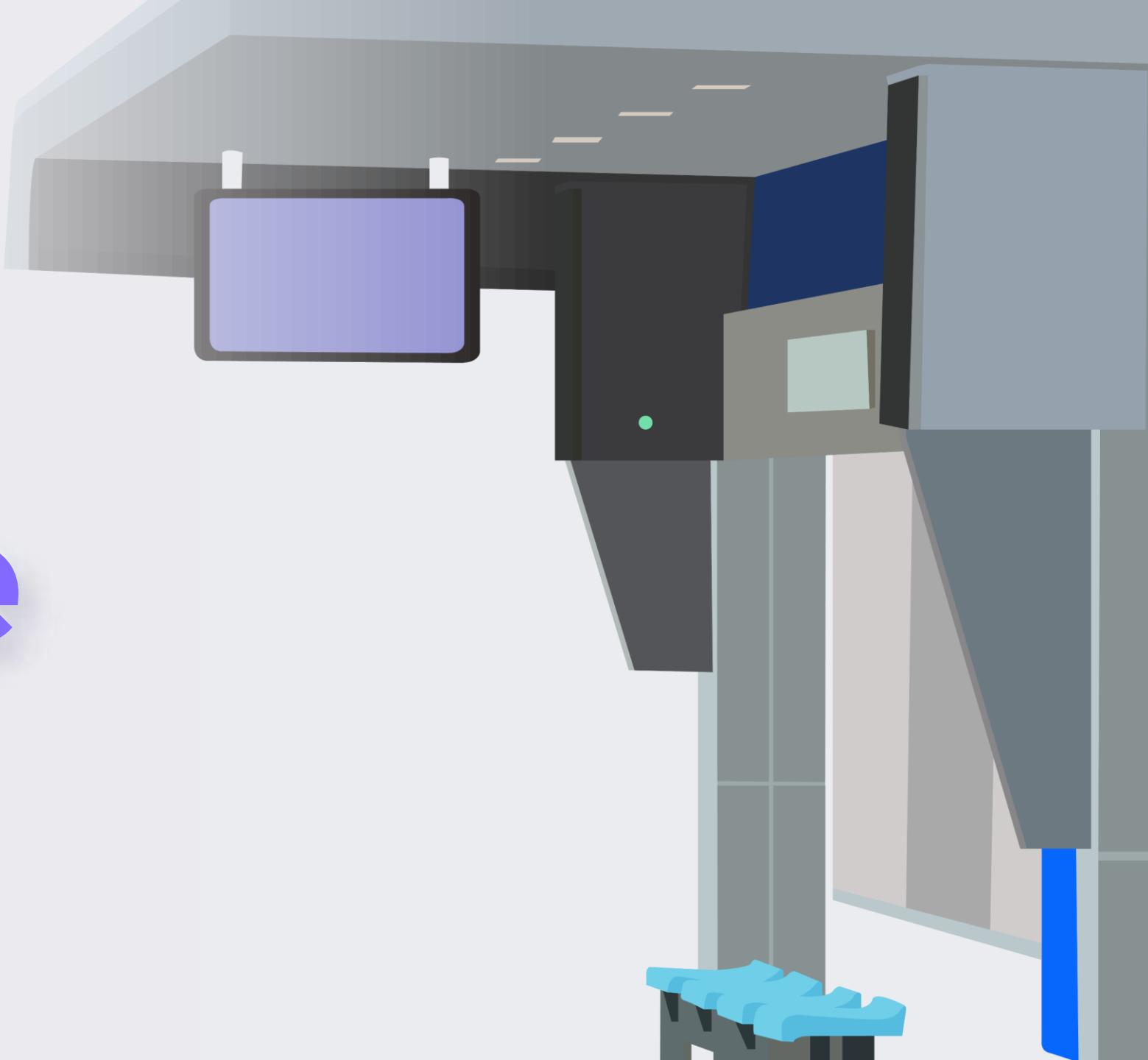
<b>Net Income Before Income Tax</b>	\$ 3,725,323	24%	\$ 4,902,031	29%	\$ 6,596,968	33%
<b>Income Tax</b>	\$ -		\$ -		\$ -	
<b>Net Income/Loss</b>	<b>\$ 3,725,323</b>	<b>24%</b>	<b>\$ 4,902,031</b>	<b>29%</b>	<b>\$ 6,596,968</b>	<b>33%</b>



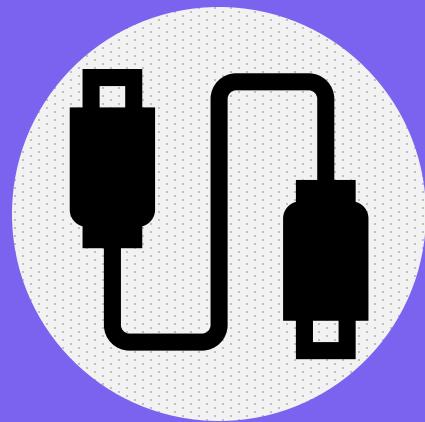
# Breaking Even Point

<b>Gross Margin % of Sales</b>	
Gross Margin	\$ 10,310,573
Total Sales	\$ 15,547,650
<b>Gross Margin/Total Sales</b>	<b>66.3%</b>
<b>Total Fixed Expenses</b>	
Payroll	\$ 2,895,100.00
Operating Expenses	\$ 3,029,063.03
<b>Operating + Payroll</b>	<b>\$ 5,924,163</b>
<b>Breakeven Sales in Dollars (Annual)</b>	
Gross Margin % of Sales	66.3%
Total Fixed Expenses	\$ 5,924,163
<b>Yearly Break-even Amount</b>	<b>\$ 8,933,239</b>
<b>Monthly Break-even Amount</b>	<b>\$ 744,437</b>

# Future Plan



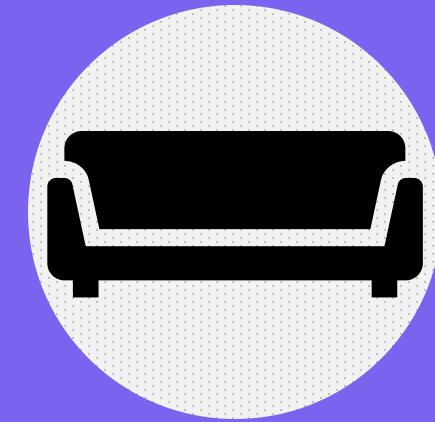
## **Customers' suggestions**



**USB Port**

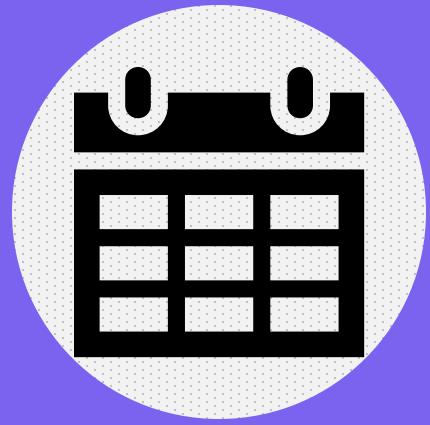


**Restroom**

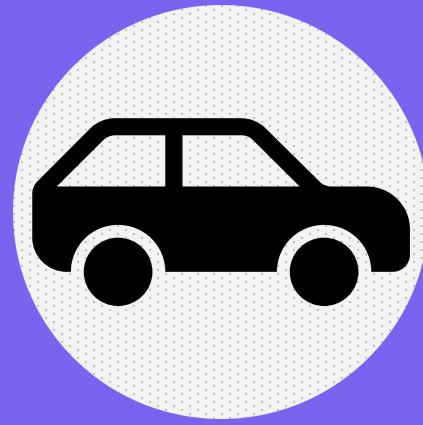


**Seat Booking**

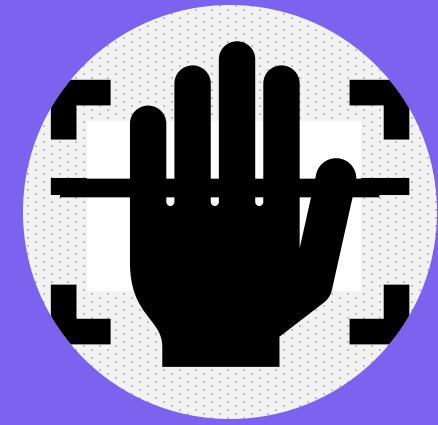
## **Services / Features**



**Monthly Fare**



**New vehicles**

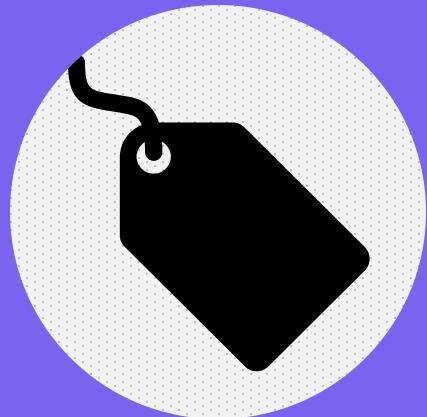


**New scanner**

## **Services / Features**



**Route  
recommendation**



**Discount**



**Destination  
recommendation**

# MARKET

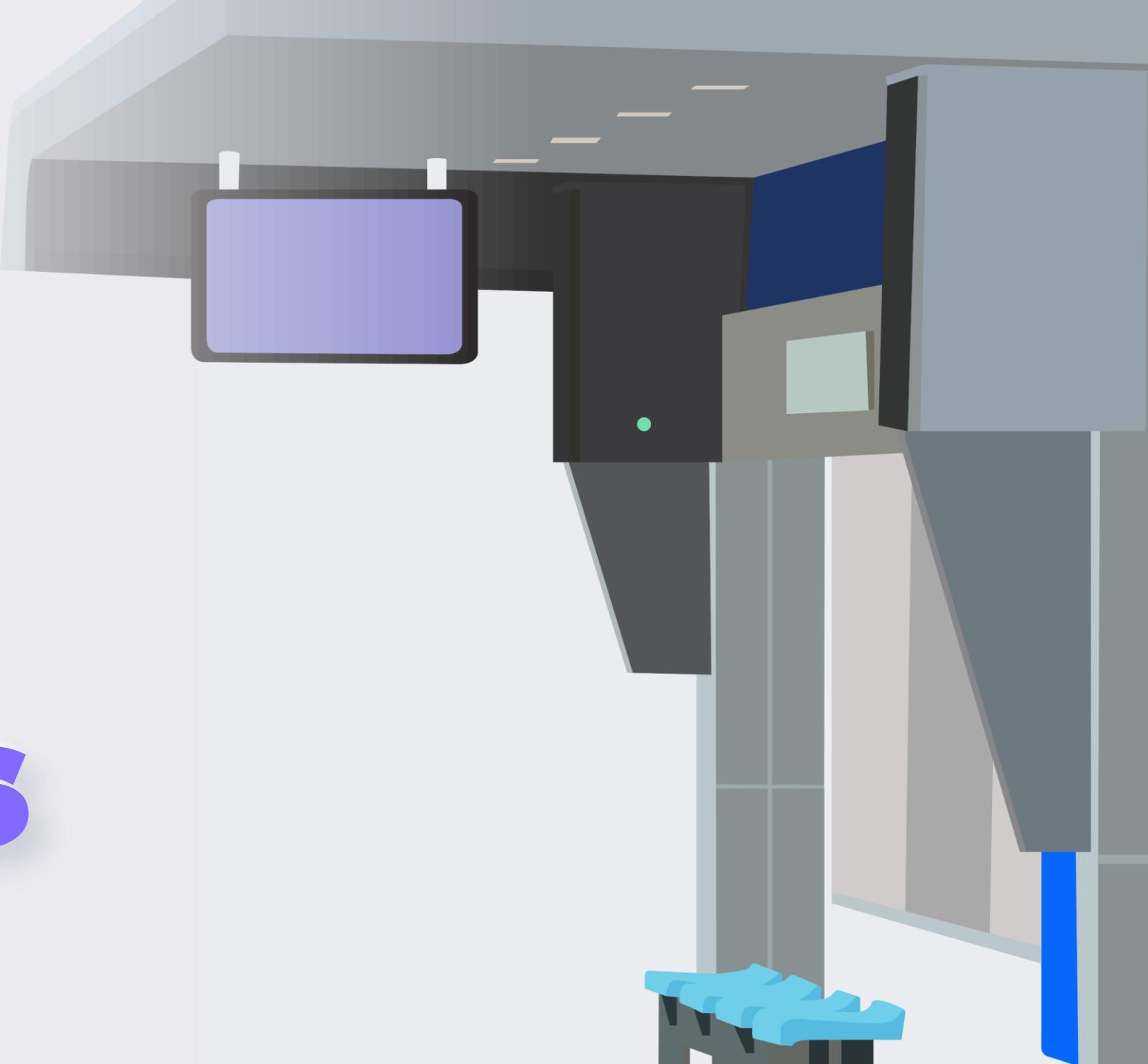


**Motorcycle**



**Motorcycle**

# Others

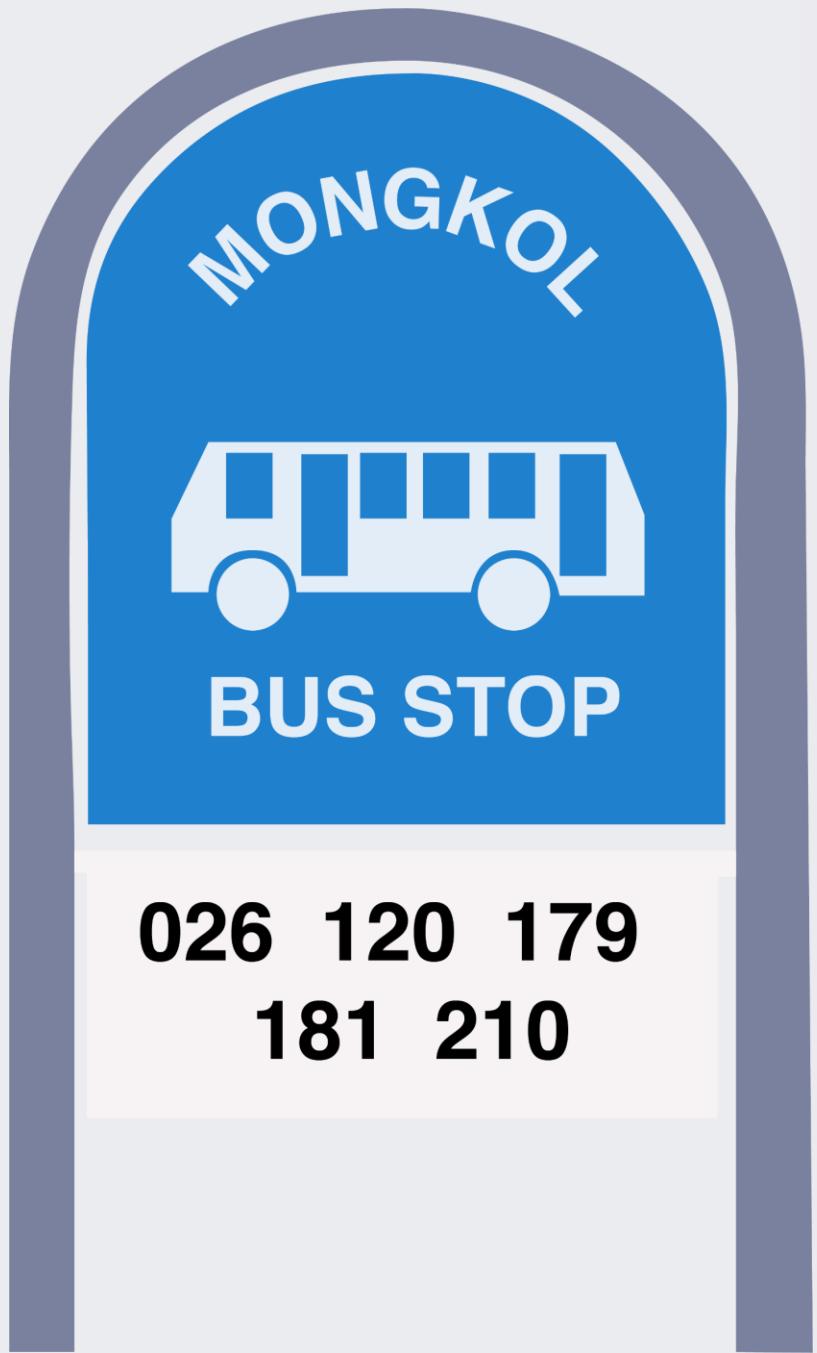


# Concession

Find capitalist  
group to invest

# AZURE BLOB

The storage of the  
data in type of  
picture



# Q & A

TIME

