ARUN+ on ion

PTT TALENT INTERNSHIP

Operation/Technic EV Charger

By: Parintara (Kat) Wongsrisoontorn

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01

INTRODUCTION





Throne Hongladaromp

Head of EV Charger



Parnthip Payappanon

Sales & Marketing Manager



Thanaset Petchwattananon

Operation Manager

OPERATION/TECHNIC INTERN







DESIGN

Review & design the application interface

Update & enhance user guides and station banners

SOFTWARE

Develop software tools to optimize process efficiency & minimize human errors

MARKETING

Analyze data to predict customer behaviors

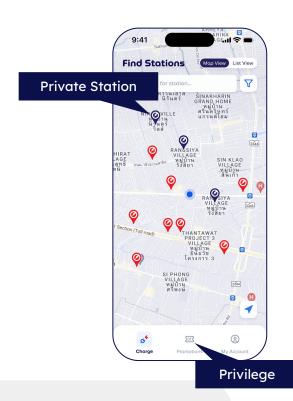
Use insights to evaluate business profitability

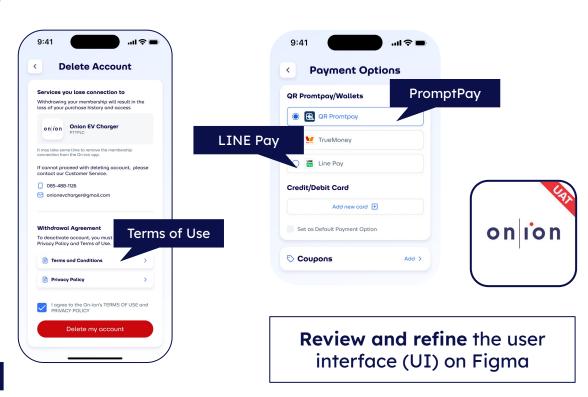


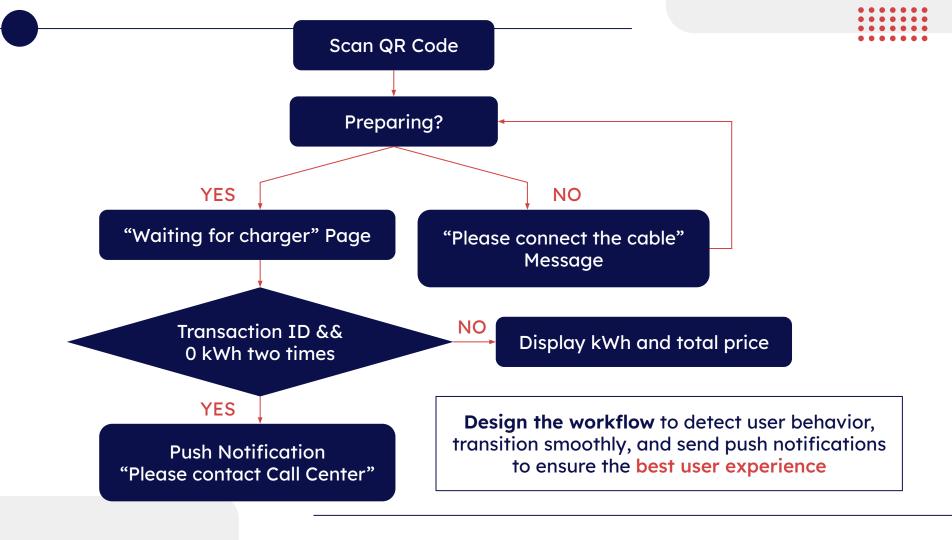
on ion APPLICATION

02

on ion APPLICATION



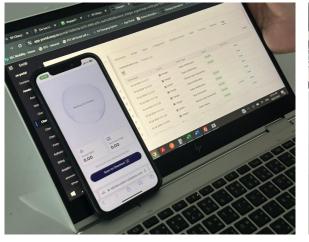






Charging Waiting for charger... Energy (kWh) Total Price (THB) 0.00 0.00 Booking ID: onion-240718-243388-0162

on ion APPLICATION





Test the app at the test station with EV cars to identify bugs

03

REPORT GENERATOR

"I WISH THERE WERE A TOOL TO DO IT QUICKLY FOR ME."

I need to generate so many reports.
This will take me at least two days.
I wish there were a tool to do it
quickly for me.

Asameen Khunyabee





CODE SOLUTION

- Update the Payment Amount column (Total Amount - Refund)
- Remove bookings with a charging amount
 0.1 kWh and status UNPAID
- Remove bookings with using time > 24 hrs and status UNPAID
- 4. Add the Report Summary section







	Α	В	С
310			
31	10	onion-240601-779480-0007	
311			
33	11	onion-240601-779480-0004	
312			
31	12	onion-240601-779480-0003	
313			
3:	13	onion-240601-779480-0002	240601117794800100
314			
33	14	onion-240601-779480-0001	240601117794800100



	Α	В	С
229	228	onion-240601-779480-0025	240601117794800
230	229	onion-240601-779480-0021	240601117794800
231	230	onion-240601-779480-0019	240601117794800
232	231	onion-240601-779480-0016	240601117794800
233	232	onion-240601-779480-0014	240601117794800
234	233	onion-240601-779480-0005	240601117794800
235	234	onion-240601-779480-0006	240601117794800
236	235	onion-240601-779480-0002	240601117794800
237	236	onion-240601-779480-0001	240601117794800

Included irrelevant entries (314 Bookings)

Only necessary data (236 Bookings)

REPORT SUMMARY

		•			•
•	•			•	•
•	•	•	•	•	•

AK	AL	AM
0	180	PAID
0	180	PAID
	0	PAID
0	180	PAID
	0	PAID
0	180	PAID
Date		
Summary Amount	31370	Baht
Summary Amount W/O VAT	29317.76	Baht
VAT	2052.24	Baht
Summary kWh	2680.4	kWh

10 – 15 minutes

Time spent per report



< 1 minute

Generate **ALL** reports *simultaneously*

> 900%

Increase in efficiency and prevention of human errors, allowing employees to focus on other tasks

DATA ANALYSIS

04

"I WISH WE KNEW CUSTOMER PATTERNS TO PREDICT DEMAND"

We need to understand customer behavior to make business decisions for new stations. I wish we knew customer patterns to predict demand.

Teetawat Wongnim





SOLUTION

DATA ANALYSIS

Use data to identify customer patterns for each time interval & location



REPORT

Clean & update data and generate summary for customer reports

BEHAVIOR

Use data to generate a new table showing customer behavior



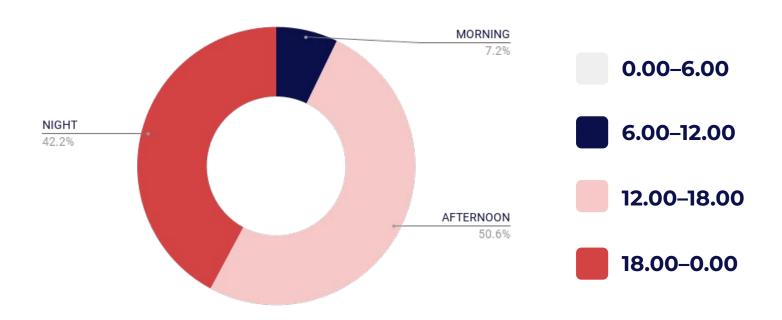
SAMPLE OUTPUT

	Α	В	С	D	E	F	G	н	1	J	К
1	Hour	2024-06-01	2024-06-02	2024-06-03	2024-06-04	2024-06-05	2024-06-06	2024-06-07	2024-06-08	2024-06-09	2024-06-10
2	0:00	0	0	0	0	0	0	0	0	0	0
3	1:00	0	0	0	0	0	0	0	0	0	0
4	2:00	0	0	0	0	0	0	0	0	0	0
5	3:00	0	0	0	0	0	0	0	0	0	0
6	4:00	0	0	0	0	0	0	0	0	0	0
7	5:00	0	0	0	0	0	0	0	0	0	0
8	6:00	0	0	0	0	0	0	0	0	0	0
9	7:00	0	0	0	0	0	0	0	0	0	0
10	8:00	0	0	0	0	0	0	0	0	0	0
11	9:00	0	0	0	0	0	0	0	0	0	0
12	10:00	1	0	3	3	1	2	2	1	1	0
13	11:00	4	5	5	4	1	2	4	3	3	0
14	12:00	7	9	7	4	4	2	5	8	9	3
15	13:00	8	9	10	4	4	3	4	9	10	4
16	14:00	10	9	7	3	1	3	5	10	12	4
17	15:00	8	11	8	2	2	3	8	8	8	5
18	16:00	9	9	9	4	4	3	9	8	9	3
19	17:00	11	12	9	4	6	5	8	9	11	3
20	18:00	12	8	9	7	12	4	9	10	5	7
21	19:00	12	9	7	6	11	8	9	10	7	6
22	20:00	9	8	4	3	6	8	2	9	7	3
23	21:00	6	2	3	1	1	3	2	8	4	1
24	22:00	1	1	0	0	0	0	1		1	0
25	23:00	0	0	0	0	0	0	0	0	0	0

A table showing customer usage by hour & date



CUSTOMER BEHAVIOR



Data from Central Ladprao Station (June 2024 Report)



CONCLUSION





"I have learned the business aspects of engineering and gained the skills to develop practical tools for solving real-world challenges"

— Parintara Wongsrisoontorn



THANK YOU

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SAMPLE BUG REPORT

Test the **UAT** app and document bugs in the Excel spreadsheet

<u>Login Page</u>	Unable to log in via Facebook and Google accounts
Language	Inconsistent language use: selected Thai, but some pages still display English
<u>User Guide</u>	Incorrect image scaling: users cannot zoom in or out on the instructions
My Account	Unable to change profile picture via both uploading and opening the camera
Delete Account	Add an alternate logout button & disable delete button for unpaid bookings
QR Code Scanner	Camera shows distorted image proportions

