







TRASH





TRASH





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ปี 2566

ปริมาณมูลฝอย

3,202,919.18

ล้านตันต่อปี

ร้อยละ 12

ขยะพลาสติก

KKU BIN TO BKK

MEMBERS

3rd Year Students, Computer Engineering,
Khon Kaen University



YOTIN
NUNTASEN



PIYUNGKON
SARAPARK



THIDALAK
MUEANGPHAEN

Use **80%**

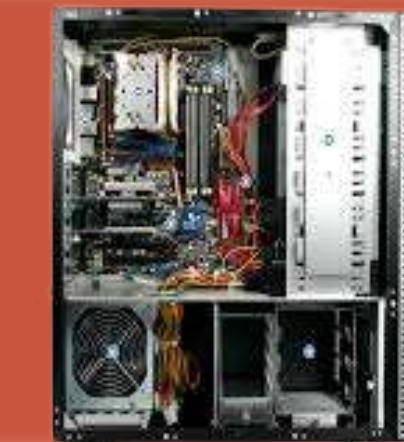
Save **6,000** baht

e - Waste

Air Conditioner



Printer



Computer



UPS



Operation



Waste Classification

Model AI



ML

Last training performance (validation set)

% F1 SCORE ②
99.2%

Confusion matrix (validation set)

	BACKGROUN	BOTTLE	CAN	CARTON
BACKGROU	100.0%	0%	0.0%	0%
BOTTLE	1.6%	98.4%	0%	0%
CAN	0%	0%	100%	0%
CARTON	0%	0%	0%	100%
F1 SCORE	1.00	0.99	0.99	1.00

Metrics (validation set)



Operation Of Notification

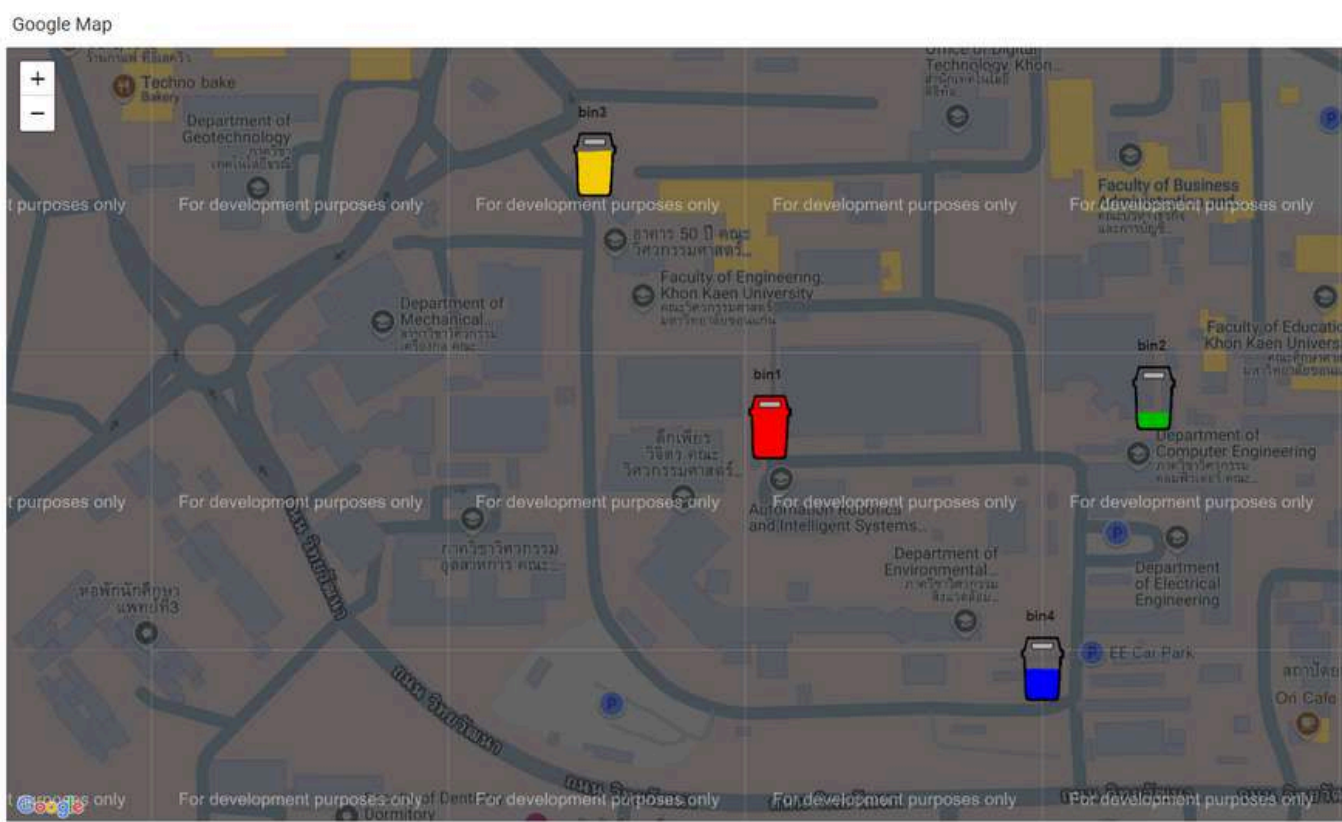
Full Bin Notification System



IoT



Web-based Application



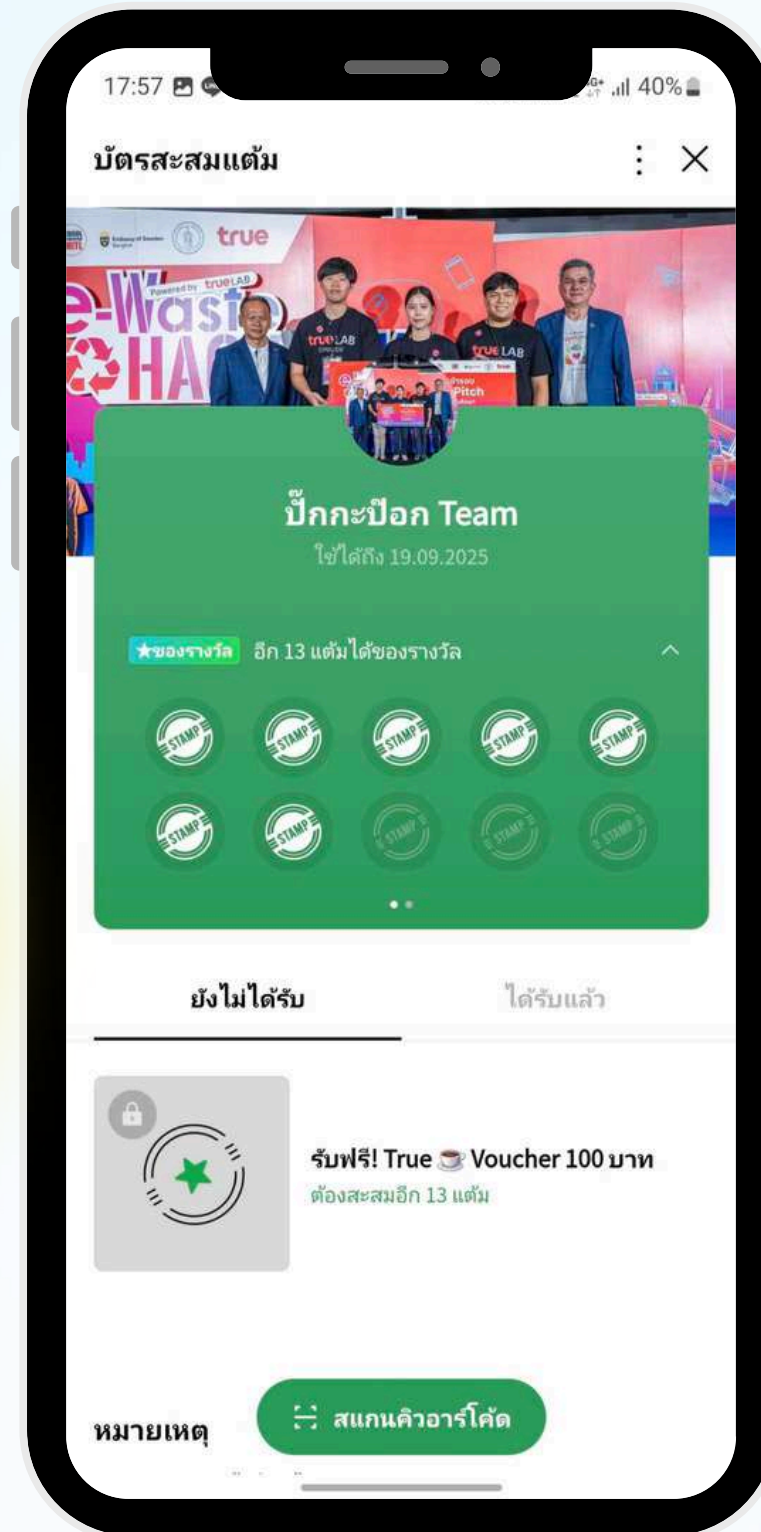
Marketing strategy

Reward
Card



คุณได้รับ 1 แต้ม!

ตกลง



Notification
When
Bin is Full



Benefit

The sorting accuracy is
more than before,
about

29%



Recyclables can be used to
the fullest efficiency by up to

20-30%



Reduce the cost of
hiring employees

8,690
Baht/Month



save time classifying

4-6
Hours/Day



THANK YOU

