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Optimization and Its Applications in Industry 4 Era

Prof. Kanchana Sethanan, Ph.D.

Faculty of Engineering

Khon Kaen University

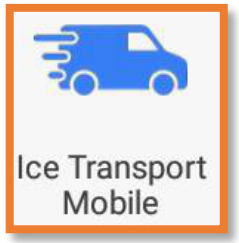
Curriculum Development

of Master's Degree Program in

Industrial Engineering for Thailand Sustainable Smart Industry

Download the application with android system

(Google drive: ice-tran-mobile-0.0.2.zip)



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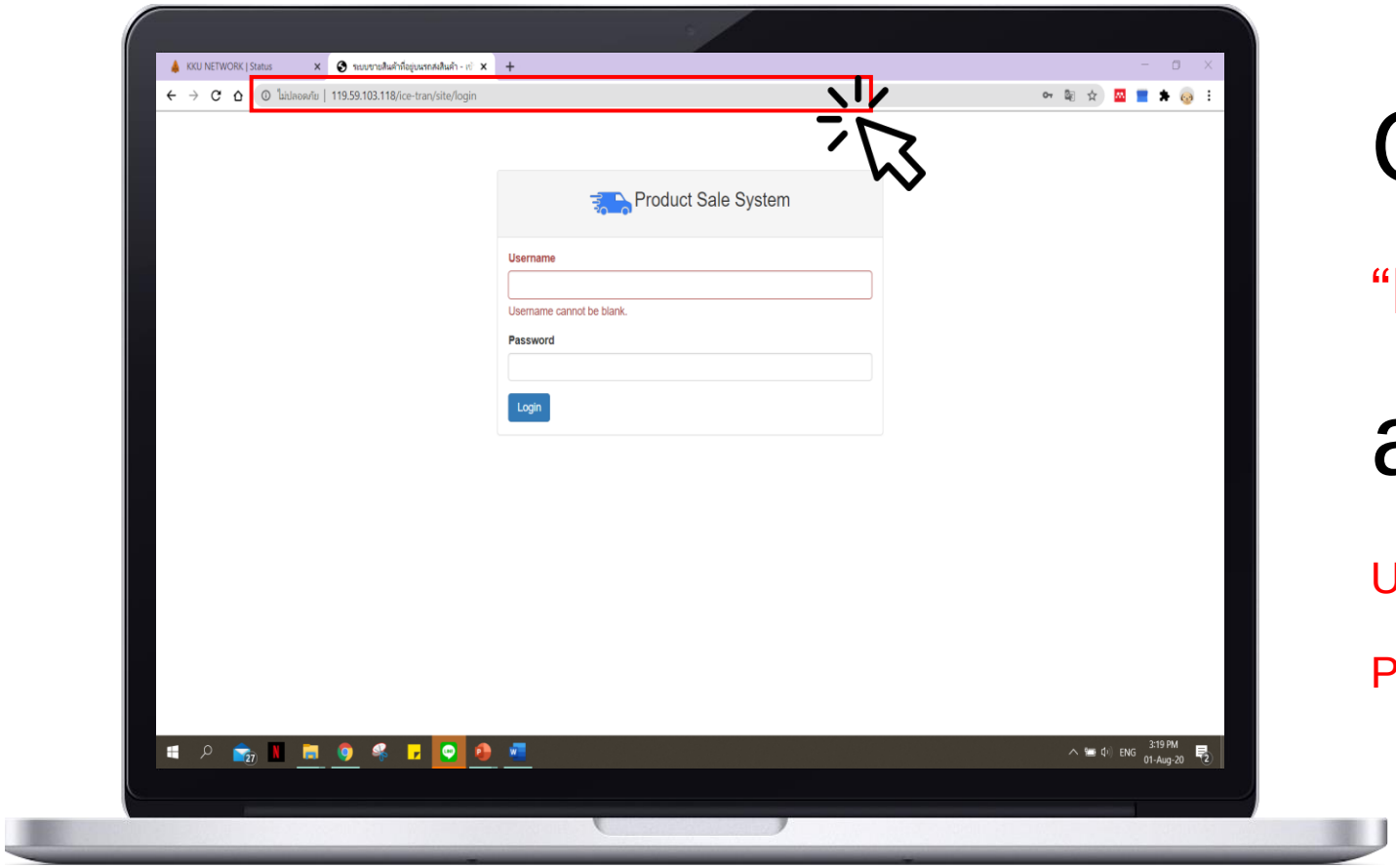

Go to Link

"http://119.59.103.118/ice-tran"

and login

Username: admin

Password: 123456

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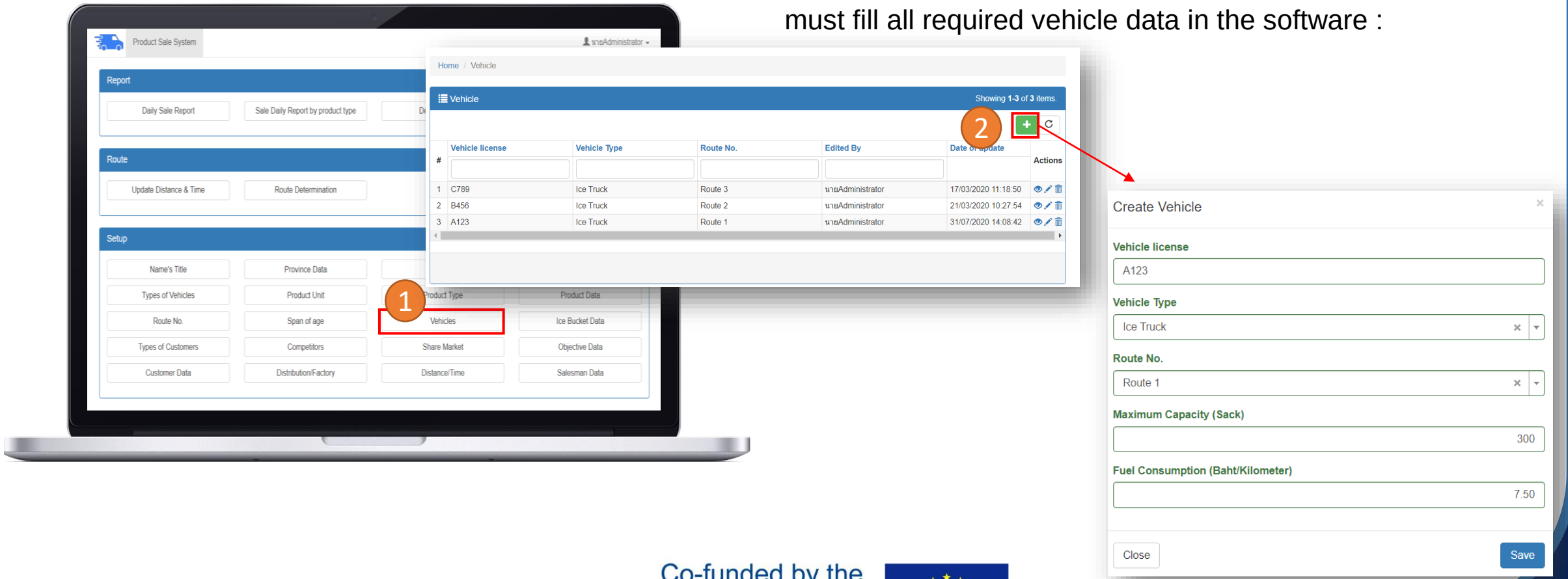
- Before making use of the demonstrated software, users must fill all required vehicle data in the software :



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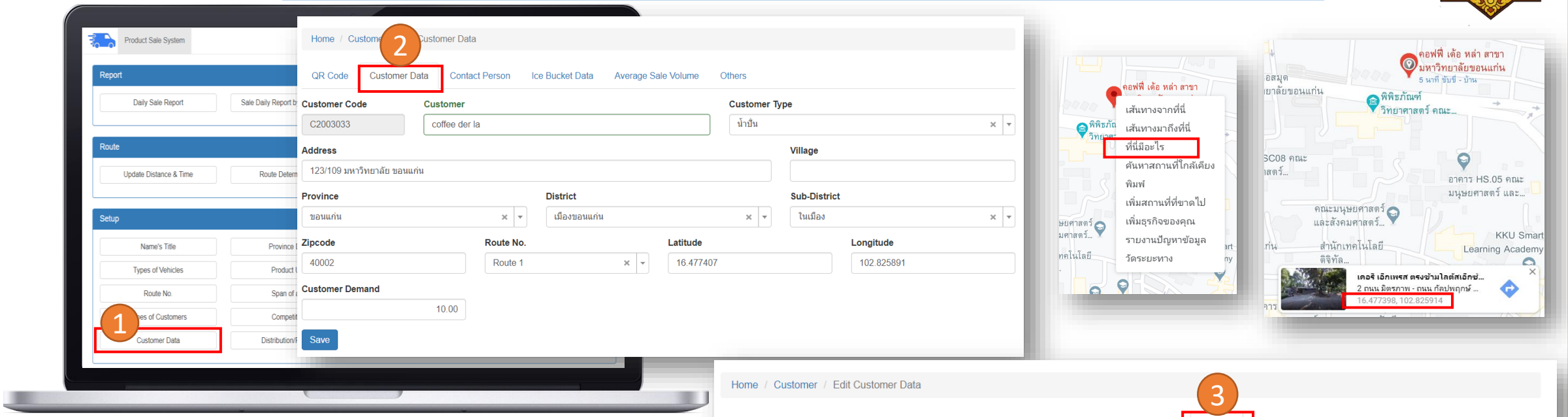

- Customer data which included the following :
  a. Customer's name
  b. Rout number
  c. Latitude
  d. Longitude
  e. Earliest time to receive goods
  f. Latest time to receive goods

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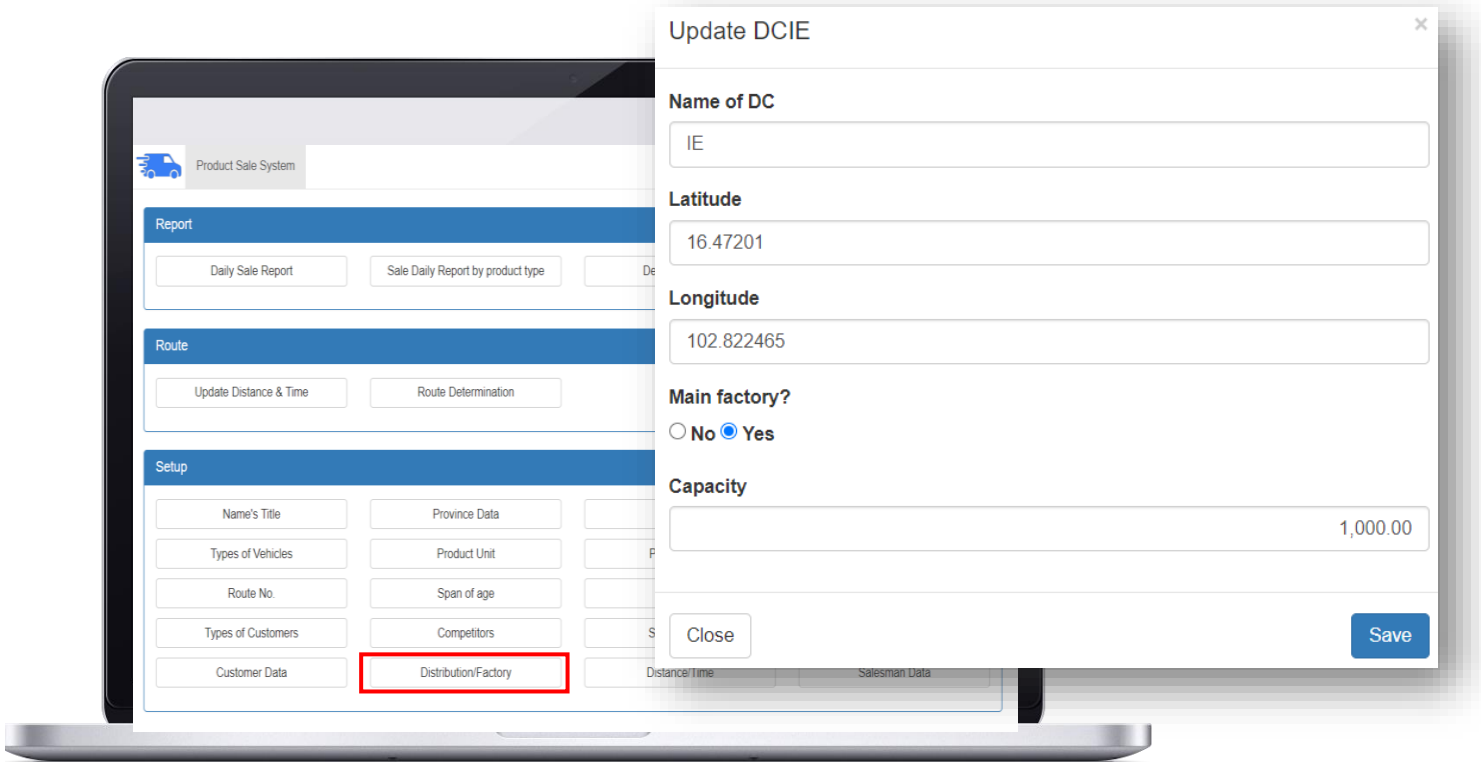

- Distribution center data which are factory and DCs.
- In case there is no DC, please fill the factory as the main distribution unit.

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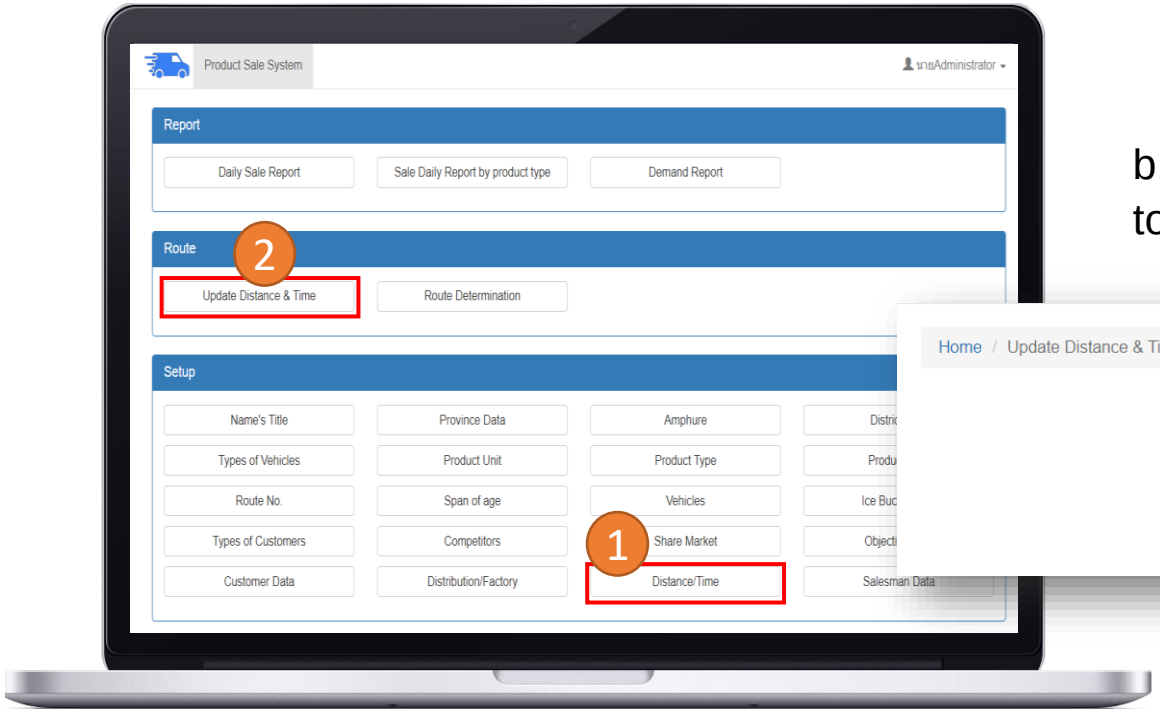
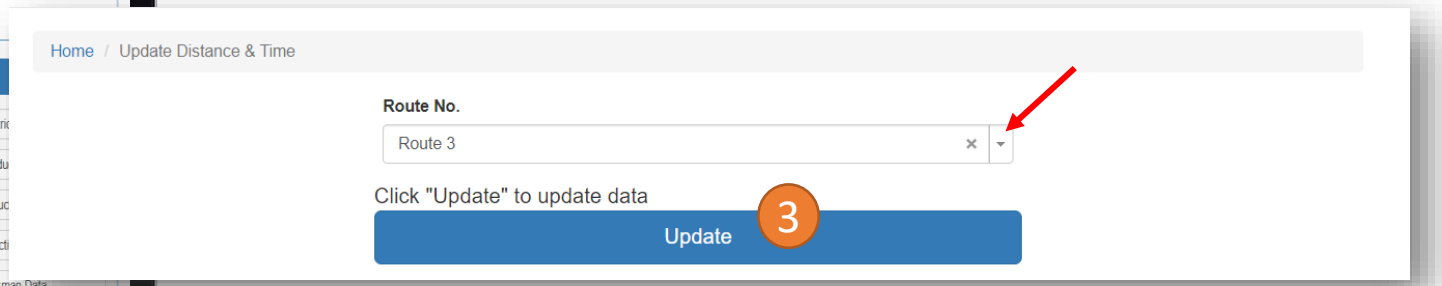
- Distance and time used from point to point (i.e., between DCs, between DC and customer, and from customer to customer)
  a. Input directly through the menu of “Distance/Time data”



b. In case there is any new/update customer or DCs, we have to update the data in “Update Distance/Time data” menu.



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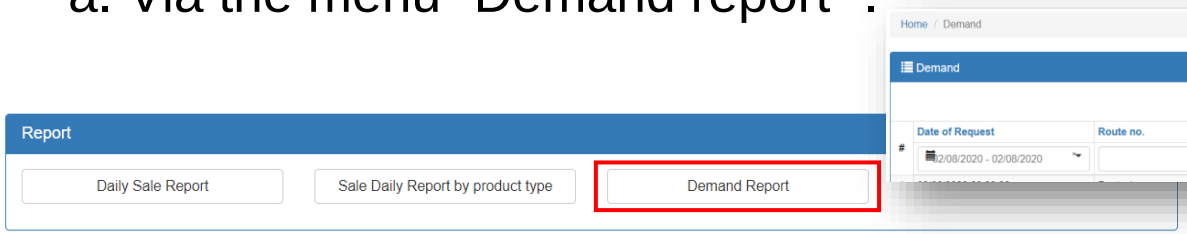
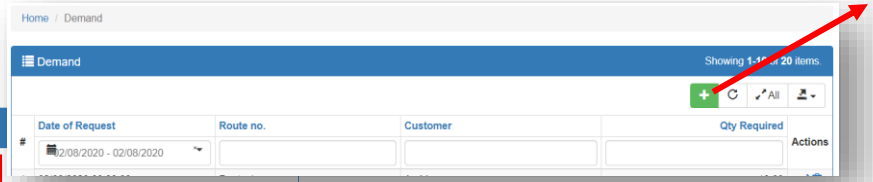
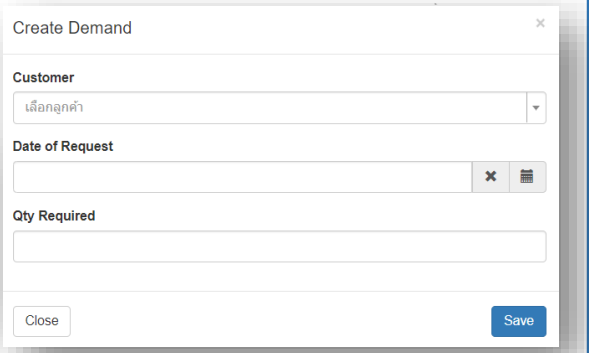
- Demand data. We can input this data through 2 ways:

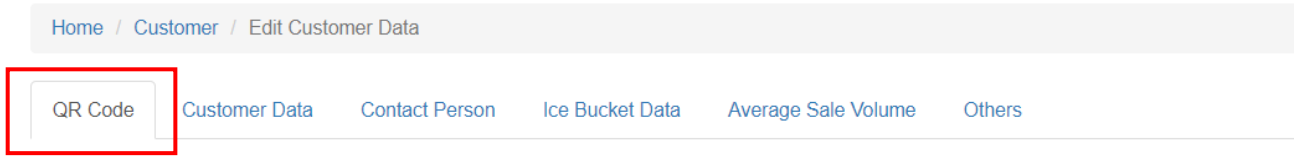
  a. Via the menu “Demand report” .







  b. Via the mobile application.



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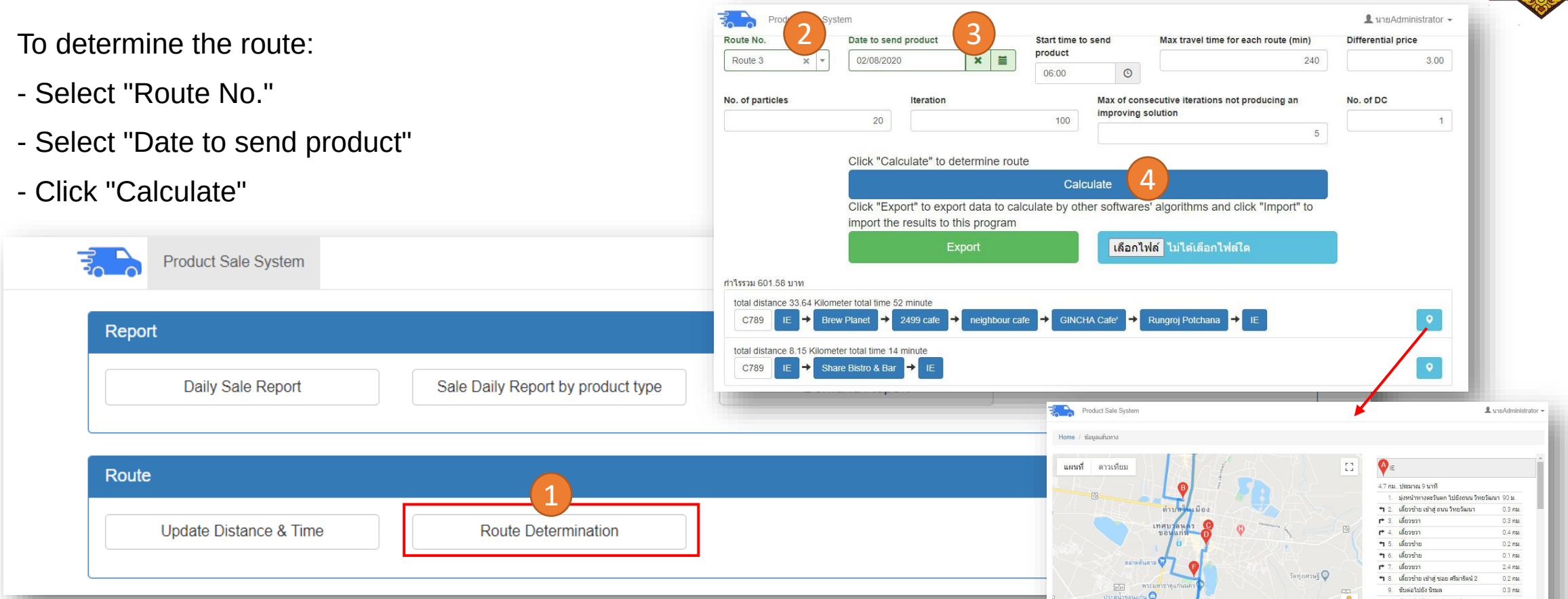
To determine the route:

- Select "Route No."
- Select "Date to send product"
- Click "Calculate"



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For user who develop their own algorithm, all data can be exported using "Export" menu. The data will be exported as Excel file shown in the Figure.

The software can also display the route obtained from user's algorithm by importing the route (in Excel format) using "Browse files" menu. Route must be written in a specific format of "Name of DC : Customer code 1 : Customer code 2 : ... : Name of DC"

	A	B	C	D	E	F	G	H
1	#	Ie	C2008006	C2008007	C2008008	C2008009	C2008010	C2008011
2	IE	0	3.9	4.69	7.32	7.71	9.04	14.32
3	C2008006	4.25	0	1.9	3.34	3.73	5.03	10.31
4	C2008007	4.59	0.88	0	3.23	3.62	5.33	9.84
5	C2008008	7.59	4.04	2.73	0	0.39	2.18	7.02
6	C2008009	7.98	4.43	3.12	0.39	0	1.79	6.63
7	C2008010	9	5.49	4.19	2.2	1.8	0	5.28
8	C2008011	13.87	10.32	9.7	6.14	5.75	4.39	0
9								
10								
11								
12								
13								
14								

Con | RaLong | Ve | Customer | DIST | TRATIME

A	B	C	D	E
vehicle_id	routes	distance	duration	profit
44	DDD:C2003015:C2003016:DDD	20	25	120

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MSIE 4.0

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Thank You

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