Customer Profile Importer

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Background

Rabbit Care has many customer data stored in different systems, e.g., Nana, LGT, iBroker, Care Shop, etc.

The objective is to onboard those customers into CareOS using the import feature.
So, the user can upload the Customer Profile to Care OS and see the error logs of the failed record according to the following logic.

Importer UI

1. Add a new menu group "Customer Profile" to the left panel.
   Then, add the menu item "Import" which will open the importer UI
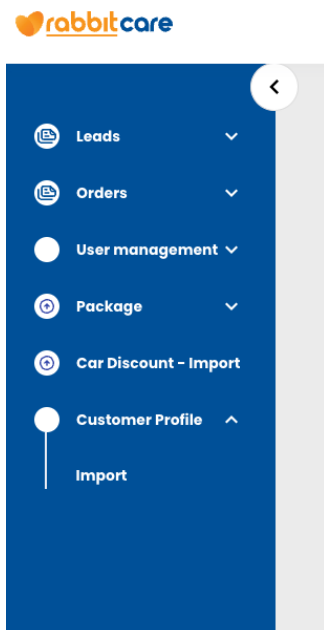
2. When clicking on the Import menu, it opens the main importer page

|	Status	Import date	File name	Imported by	Sources	Imported rows
	In progress	02/08/2020 (5:13:39 PM)	File1.CSV	User 1	Nana	334,600
	Failed	02/08/2020 (5:13:39 PM)	File2.CSV	User 1	Care Shop	15,000
	Success	02/08/2020 (5:13:39 PM)	File3.CSV	User 1	Nana	487,987
	Success	02/08/2020 (5:13:39 PM)	File4.CSV	User 1	Nana	30,000
	Success	02/08/2020 (5:13:39 PM)	File5.CSV	User 2	Nana	29,000
	Success	02/08/2020 (5:13:39 PM)	File6.CSV	User 3	Nana	100,000
	Success	02/08/2020 (5:13:39 PM)	File7.CSV	User 4	Nana	23,560
	Success	02/08/2020 (5:13:39 PM)	File8.CSV	User 1	Nana	123
	Success	02/08/2020 (5:13:39 PM)	File9.CSV	User 1	Nana	30
	Success	02/08/2020 (5:13:39 PM)	File10.CSV	User 1	Nana	500,000

a) "Import customer" button - trigger the file upload modal window

b) Pagination at the top and bottom of the import logs table

c) The import logs table columns:

 - Id: Log id

 - Filename: The imported file name

 - Source: The data source of the imported file

 - Imported by: The user name who imports the file

 - Import date: Date and time when the import has started

 - Last update: Date and time when the import has stopped: either Success or Failed

 - Imported rows: How many rows the data has been successfully imported

 - Status: In Progress, Success, Failed

When there is some error logged, the status then shows as Failed and the text linked to the error log file

3. The File Upload Modal window
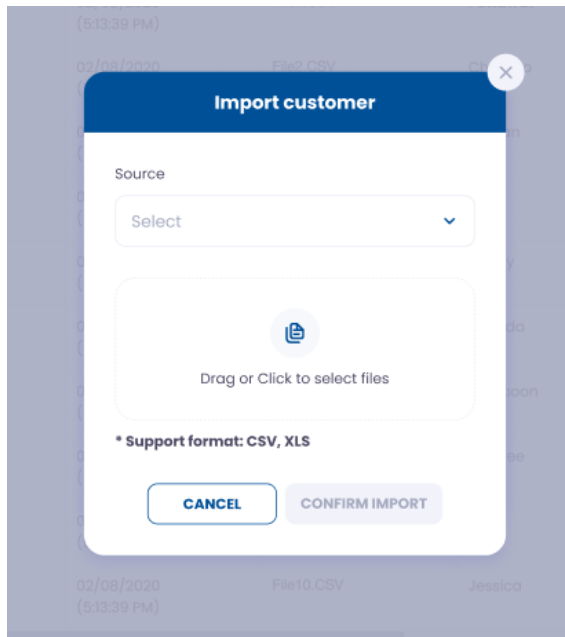
- ○ Header: Import customer with close button
- ○ The dropdown list for choosing what is the data source to trigger the right importer - "Nana", "Care Shop", "etc."
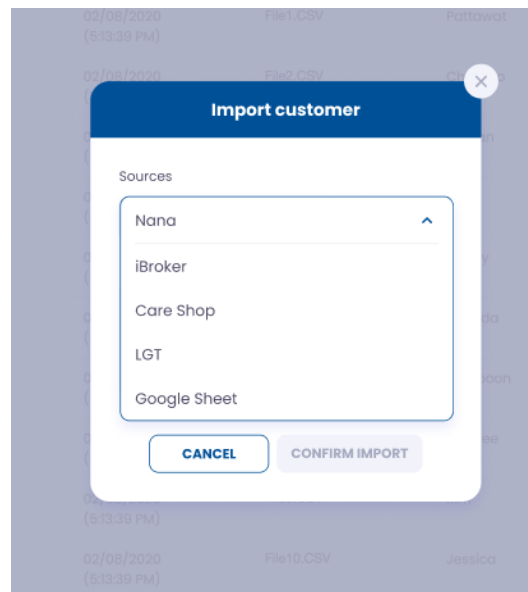
so the user must choose the source to enable the CONFIRM IMPORT button

4. File validation

    Before starting the importer, the file must be validated by the following criteria

    - File size

    - File type
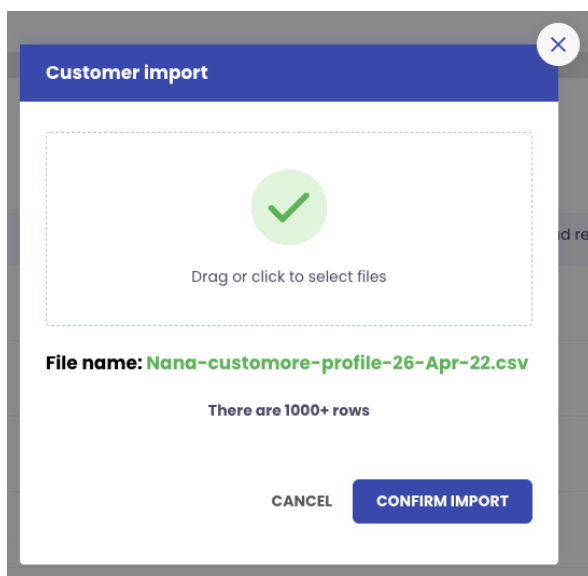
    - File format, e.g., checking for file headers

    When the file is invalid, show the error message on the modal window.

    Then, clear the upload field and disable the CONFIRM IMPORT button
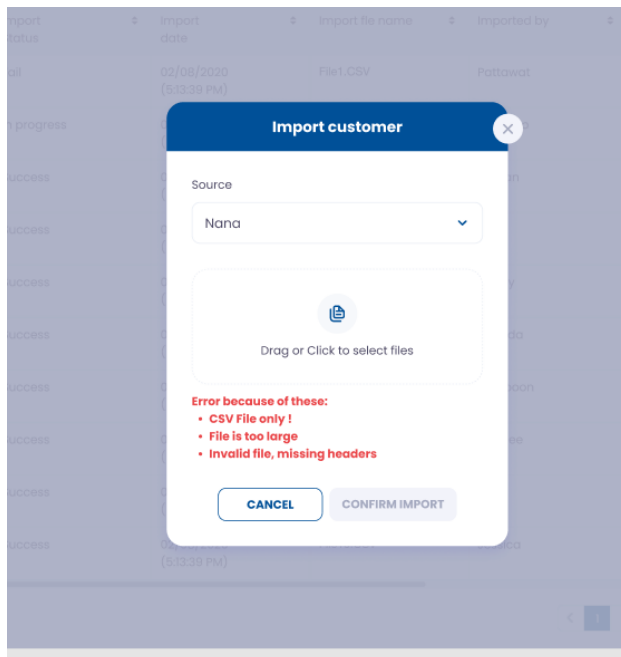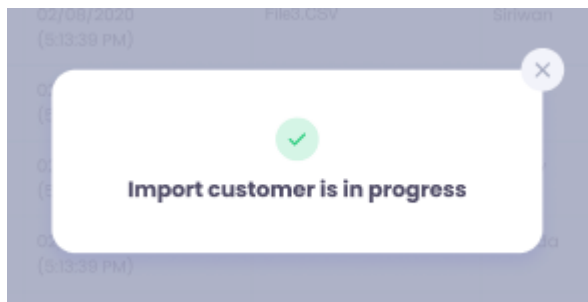

    If the file is valid, then show the file name and enable the CONFIRM IMPORT button

The row numbers are optional, it can be ignored if they will cause the complexity or bad performance

5. Confirm import window

When a user confirms the import, show the confirmation message:

Data Sources

1. Nana

The BI team will provide the cleaned customer data, which the duplicated and junk records were resolved.

Data schema:

Based on BI's schema
https://docs.google.com/spreadsheets/d/1z63gOKTgs3FAu9CqbPAR11dKRclJ-hTA8GGW9yCdfcI/edit#gid=0

Field name	Description	Remarks
careos_cus_id	CareOS customer id	BI will map Nana's lead with existing CareOS' profile if any. When it is empty, the customer profile will be inserted normally. Then, insert the pairs of newly created CareOS customer id and Nana customer id to the relation table

`nana_cus_id`	Nana customer id	Comma-separated value; the Nana customer will be grouped into 1 row and store all nana's id into this column
`gender`	Enum field (`F`; `M`)	This field may be empty as the agent might not fill the customer gender to Nana.
`firstname`	The customer first name	
`lastname`	The customer last name	
`email`	Email	All email addresses, the value format to be concluded
`date_of_birth`	Date of birth	yyyy-mm-dd
`phone`	Telephone numbers	Comma separated value when a customer has many phone numbers
`company_name`	list of company of the profile	The list of company in the quoted-comma-separated value; e.g., "Rabbit Care Co., Ltd.", "Rabbit Internet Co., Ltd."
`force_create`	Enum Y or empty	If Y then creates a new Care OS profile and insert to the Relation table

Relation table (or Join table)

The table to store the pairs of CareOS customer id and the original systems' customer-id

Originally, the objective is to let the *Order Squad* be able to import the orders from the legacy system hence it is possible to also map with the CareOS's customer profile.

An example of the relation table from the BI team for Nana's migration

is_active	careos_cus_id	nana_cus_id
N	C01	n01
Y	C01	n02

The relation table can be freely designed based on the most optimal implementation, e.g., single relation table for all sources might look like below table

Field	Remarks
care_os_id	The Customer Profile id of the CareOS
original_id	The original customer id from the other systems
original_source	The other system name, e.g. Nana, CareShop, etc.
active	Enumerable (`1;0, on;off, Y;N,` etc.) to identify that this relation is in used. When the pairs were incorrectly mapped, then set the active field to the negative value to unlink the relation, rather than relating, and insert a new pair instead.

Error logs

The BI team wants to examine why some records couldn't be imported so the data will be cleaned up again for the next upload.

When the customer profile cannot be imported or the Relation cannot be created.

Then, the whole records shall be logged into a dedicated table.

So the BI team will be able to examine and improve the data for the further onboarding process

Customer profile sync process

1. All fields must be validated, and each of the comma-separated values must be individually checked.
2. When the careos_cus_id is not NULL. Then insert the pairs of nana_cus_id and careos_cus_id into the Relation table
3. But when the careos_cus_id is NULL.
   Then create a new profile according to these rules:
   1. If force_create is NOT Y then perform the duplication check by the phone number:
      1. If any of the phone numbers matched with any existing Care OS customer profile
         Then, add this row to the error logs
      2. Unless creating a new customer profile
   2. When the profile is successfully created, then insert the pairs of careos_cus_id and nana_cus_id to the relation table

Import fields validation

Field	Mandatory	Validation
careos_cus_id	N	
nana_cus_id	Y	
gender	N	When it is not NULL, then only accept F;M
firstname	Y	
lastname	Y	
date_of_birth	N	yyyy-mm-dd
email	N	email pattern only
phone	Y	Phone number can be in comma separated Each number must be phone number validated
company_name	N	No validation, but it is quoted comma-separated value, e.g. "Rabbit Care Co., Ltd.", "ADB Co., Ltd.", "My Company Co., Ltd."
force_create	N	Y or empty

2. Rabbit Care Shop

The Care Shop is a low priority, and must not be imported until Nana's profiles are completely imported.

Field	Remarks
Firstname	
Lastname	
Mobile phone	Will be only a single number
Email address	It will be only a single email address

Customer profile sync process

When fetching the data from the Care Shop customer table and processing each data record.

1. Check for the history log to skip if the record is already synced.
2. Validate if the phone number is valid - see https://en.wikipedia.org/wiki/Telephone_numbers_in_Thailand
   1. If it is invalid, then log the record to the Error logs of Care Shop
   2. Unless. start the import flow
3. When the record is eligible for import, then look up whether the phone number is matched with the existing profile.
   1. If it is matched, then
      1. If the matched profile also has the first name and last name exactly matched to the synced record then do not thing
      2. Unless creating a new profile (though the phone number is duplicated)
   2. Unless creating a new customer profile with the record

4. Then, log the record to the history log.

Care Shop diagram