

# Drone Delivery System

➤ I would like to start with a heartfelt thank you for giving me opportunity to work on interesting IOT assignment. I really enjoyed and get to learn a lot of new things, Specially about new IOT platform i.e “Things Board” on which i never worked on.

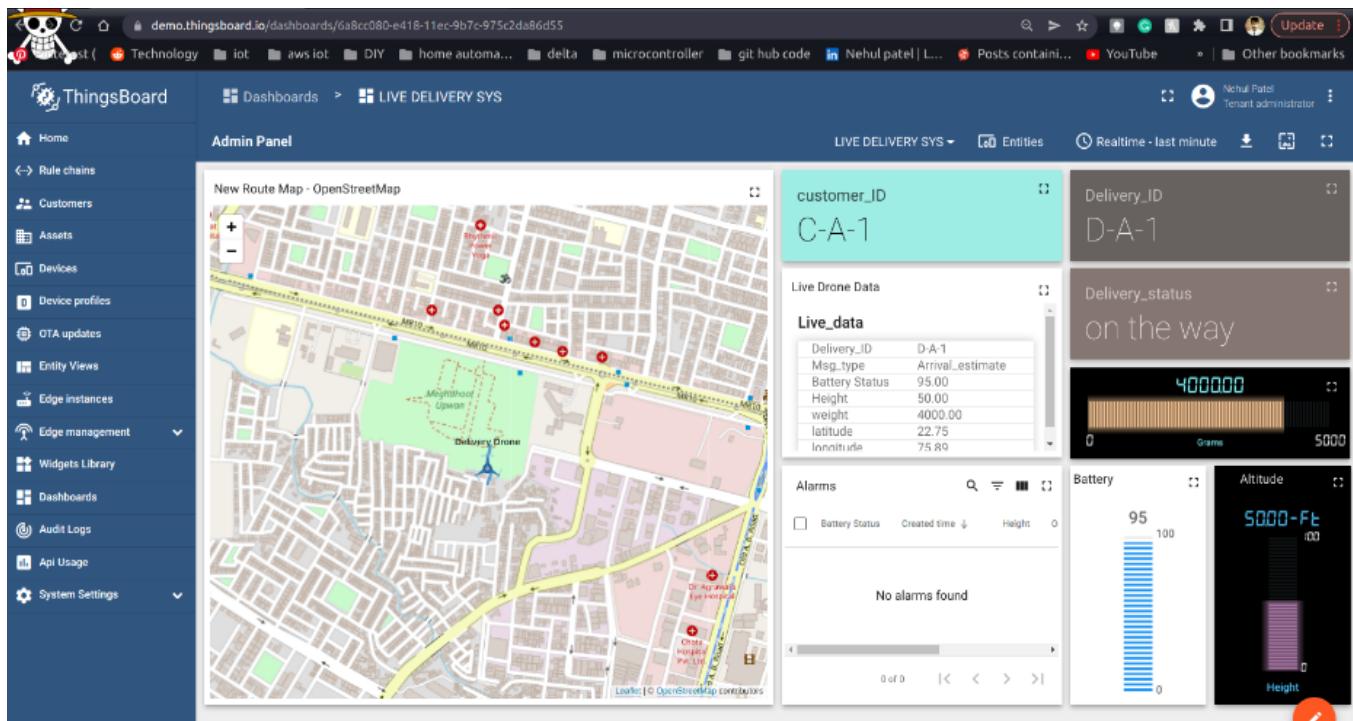
Please find the source code in attachment and snaps below for same.

## Snaps representing different cases :

Note : Left side of snap is showing the assigned customer dashboard and on the right side its admin panel where we can monitor the parameter and alarms of the drones.

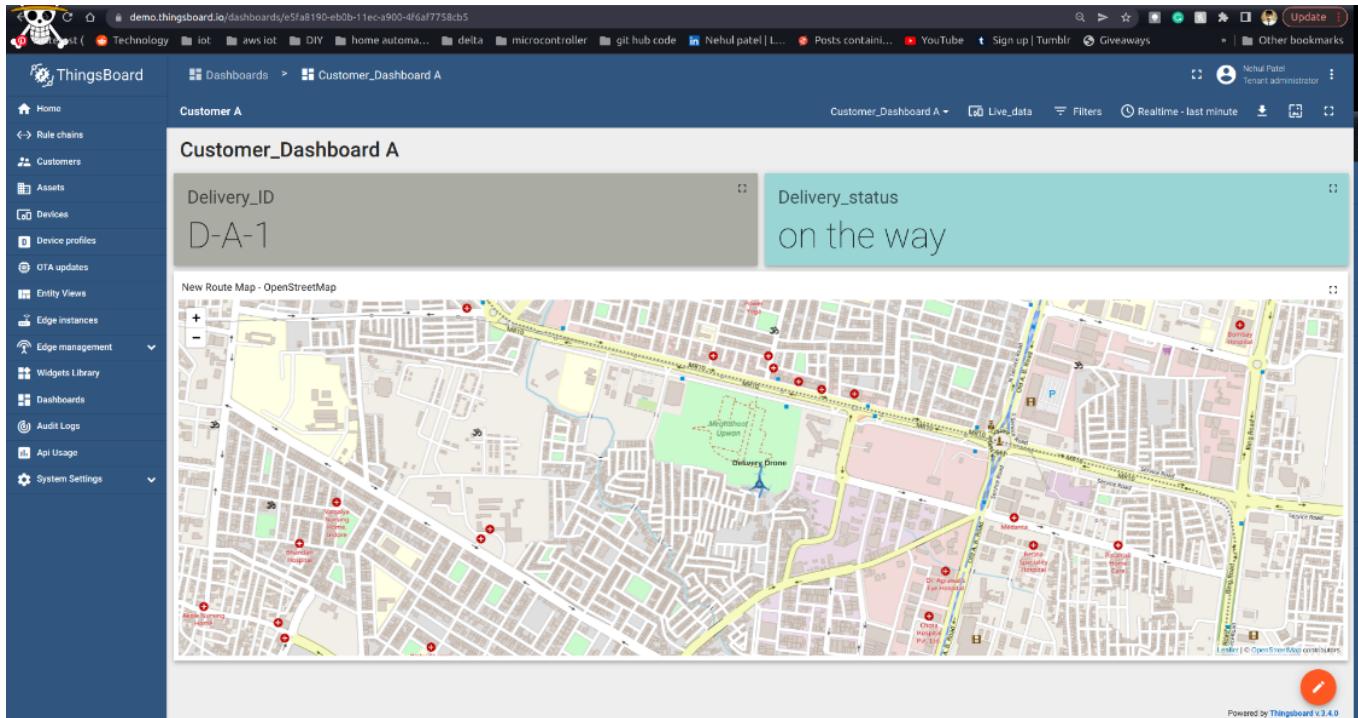
- Admin Panel:

- Admin panel will monitor all the drone activities and monitor following parameter :
  - Delivery status.
  - Assigned customer ID and Delivery ID.
  - Altitude, weight, battery status of drone.
  - Map for locating Drone location.
  - Alerts for any alarms for low battery or fault
  - All the incoming telemetry data from drone.



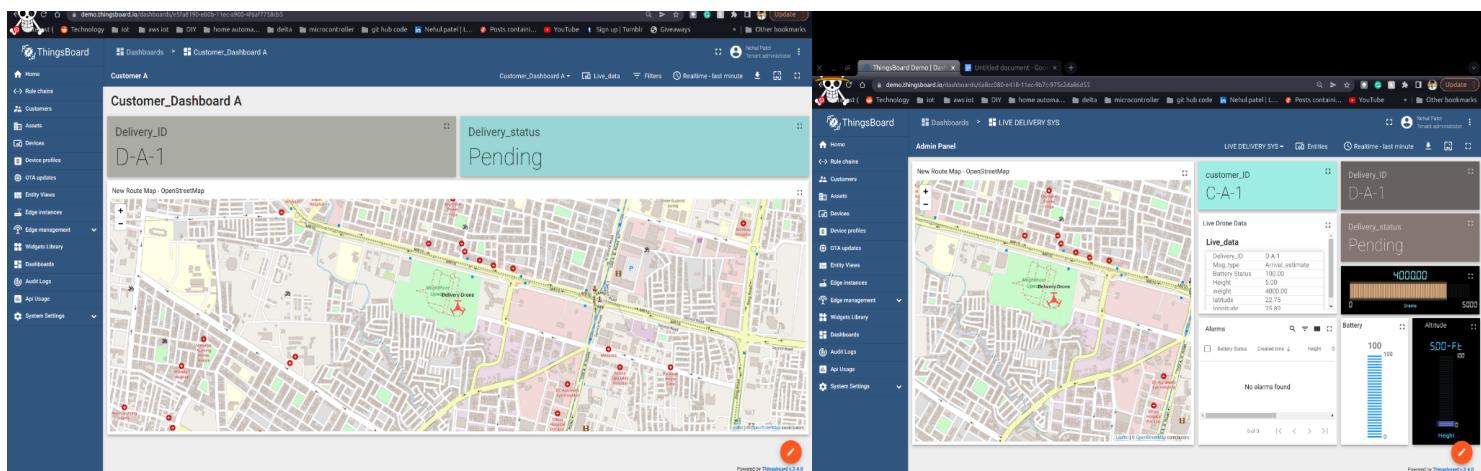
- Customer Dashboard :

- Customer who is assigned for D-A-1 can access the following dashboard where they can monitor following data about delivery:
  - Delivery ID
  - Delivery status
  - Map to locate the drone/package.

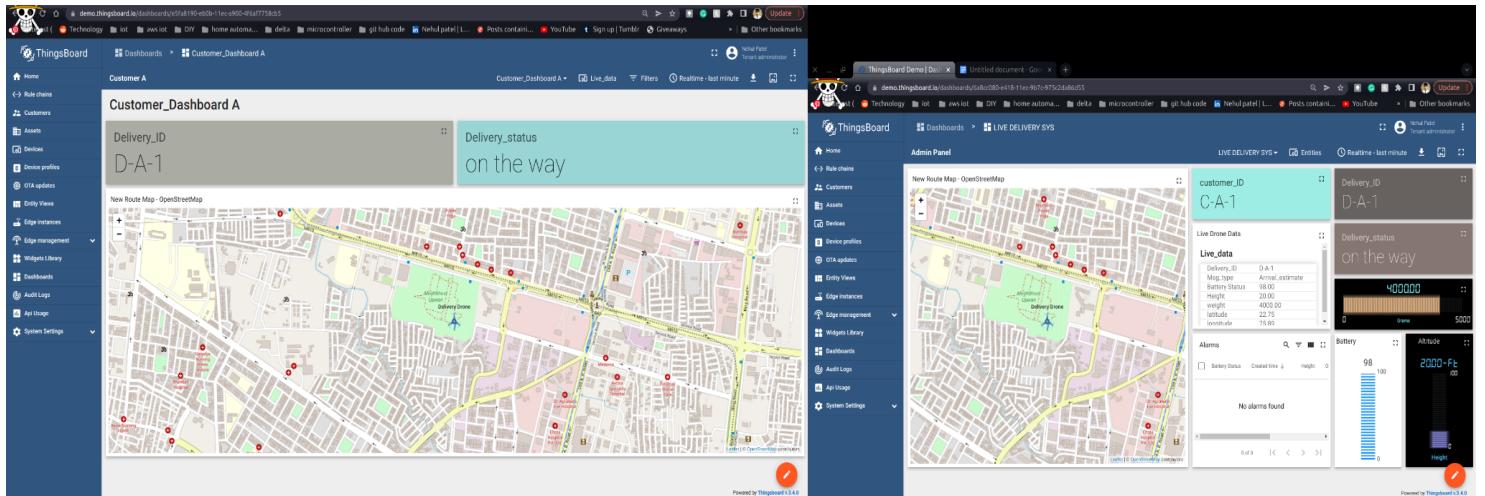


- Pending delivery :

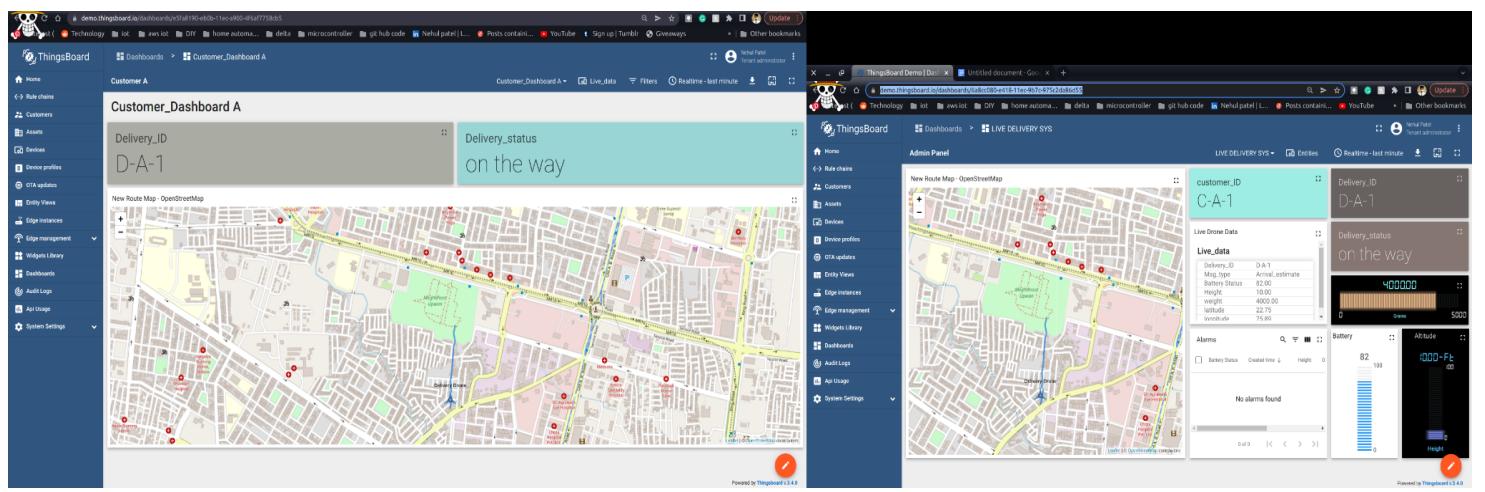
- Drone is at warehouse and Delivery ID("D-A-1") and customer ID ("C-A-1") is assigned.
- Drone color on Map is marked RED indicating delivery is pending For customer C-A-1.



- Drone is on the way to deliver package.
- Drone Started moving from warehouse to assigned customer.
- Drone color on Map changes from RED to BLUE indicating drone started moving and Delivery status changes to (ON THE WAY) customer C-A-1.

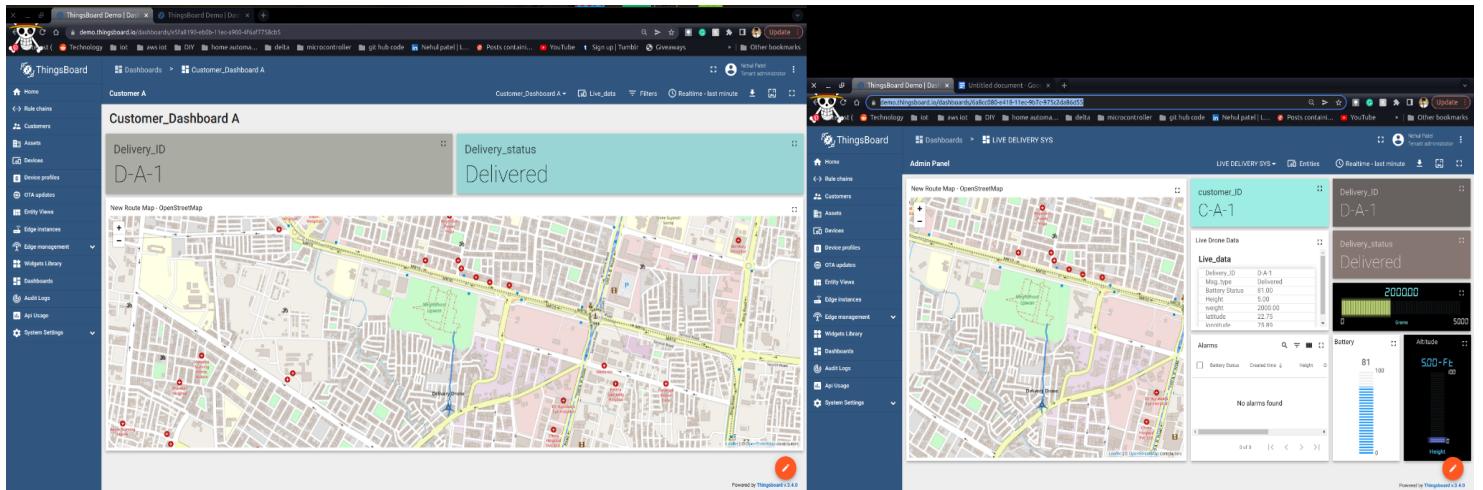


- Moment Before Delivering the Package :
- As soon as drone reached to destination it will lower the altitude and drop the package at altitude of 5ft.
- With weight of 4000 grams including package.



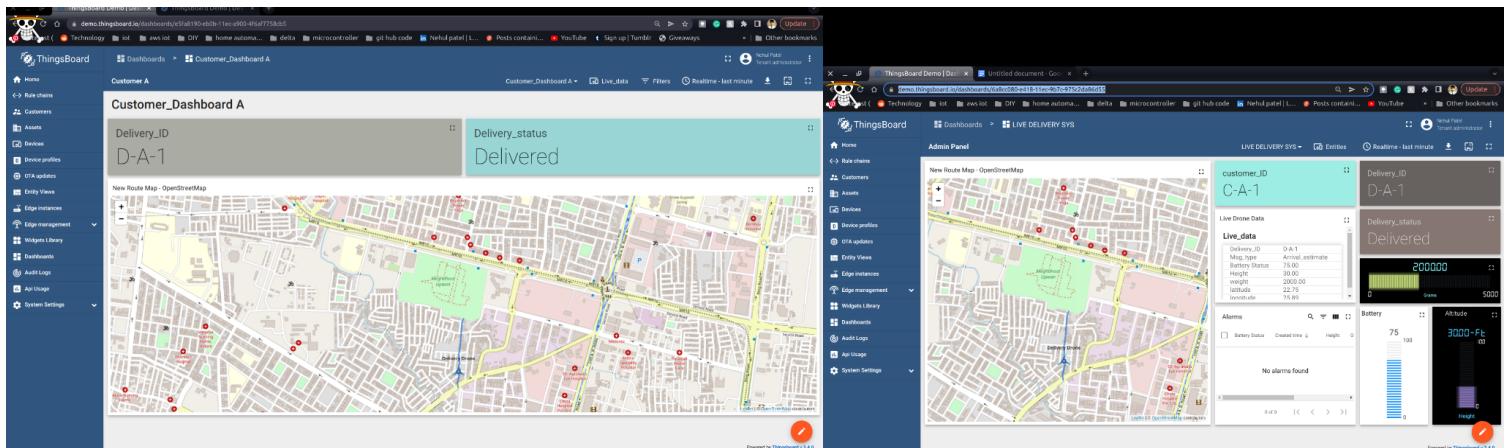
- Delivered the package by lowering the altitude:

- As soon as drone reached to destination it will lower the altitude and drop the package at altitude of 5ft.
- Weight of drone will also reduce to 2000 grams from 4000grams.
- Delivery status will changes from (ON THE WAY) to (DELIVERED) indicating drone has delivered the package and heading back to warehouse.



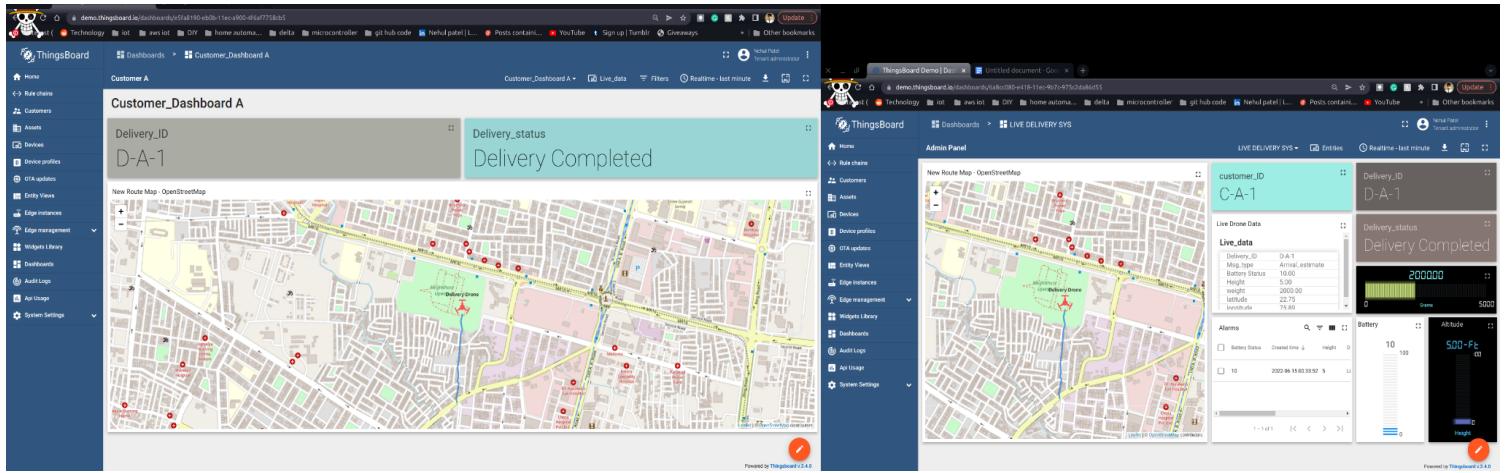
- Coming back to warehouse without payload and gaining the altitude :

- Drone gaining the Altitude from 5fts to 50 ft.
- Both the dashboard are updated.



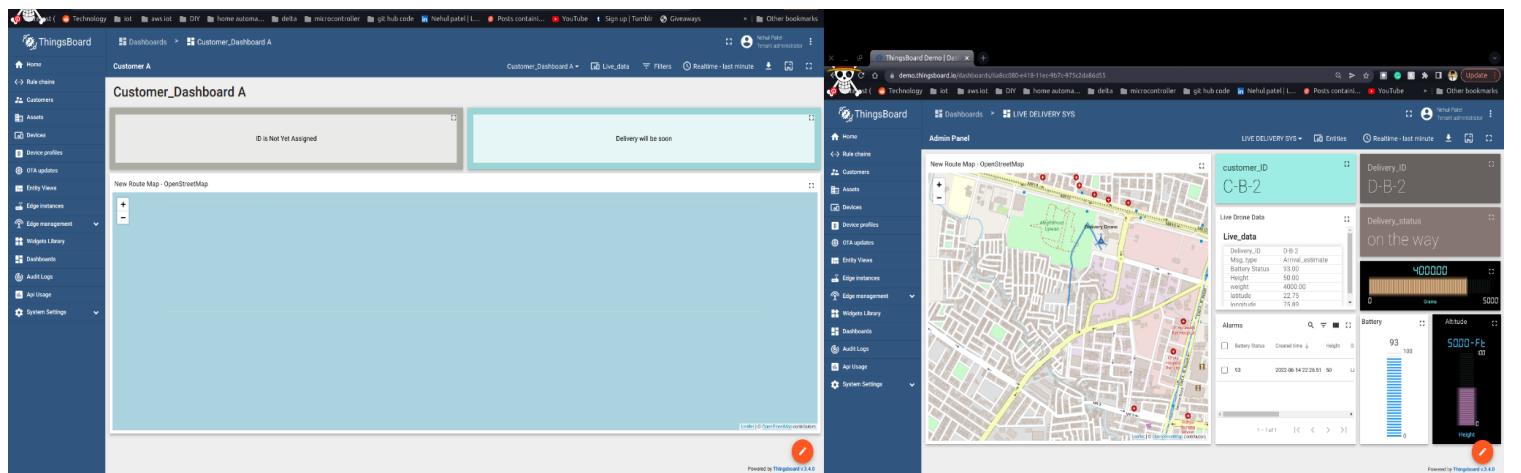
- Delivery Completed ( With Low battery Alaram ) :

- Drone reached to warehouse and color of drone on map changes from BLUE to RED.
- Delivery status is also changed from Delivered to Delivery completed.
- Also alarm generated as due to some fault drone was loosing its power very rapidly. And critical alarm was generated for battery status lesser than 30%.



- Customer A is waiting As currently Drone is delivering package to customer B with customer ID = C-B-2.

- On left side Customer dashboard, delivery status is showing pending.
- On right side drone is delivering package to customer with ID C-B-2.



- Dashboard assigned to Different Customer :

Created time	Title	Assigned to customers	Public
2022-06-15 00:26:01	Customer_Dashboard E		
2022-06-15 00:25:51	Customer_Dashboard D		
2022-06-15 00:25:40	Customer_Dashboard C		
2022-06-14 18:33:11	Customer_Dashboard B		
2022-06-13 16:58:07	Customer_Dashboard A	Customer A	
2022-06-04 20:40:05	LIVE DELIVERY SYS		
2022-06-04 17:00:14	DHT22: Temperature & Humidity Demo Dashboard (Deprecated)		
2022-06-04 17:00:14	Raspberry Pi GPIO Demo Dashboard (Deprecated)		
2022-06-04 17:00:14	Linkit One GPS Tracking Demo Dashboard (Deprecated)		
2022-06-04 17:00:14	ESP8266 DHT22: Temperature & Humidity Demo Dashboard (Deprecated)		

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