Short term training program for student of BU-UIT Bhopal

NITTTR Bhopal

Project 01- PUMP

Project title : PUMP

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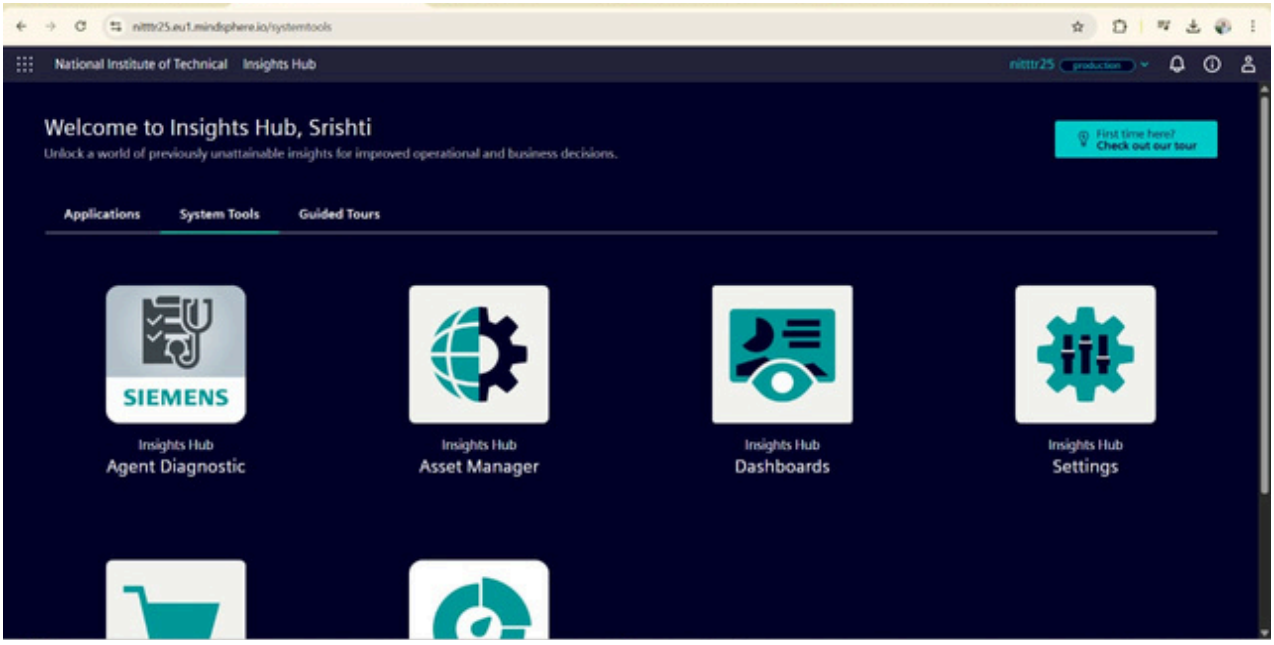
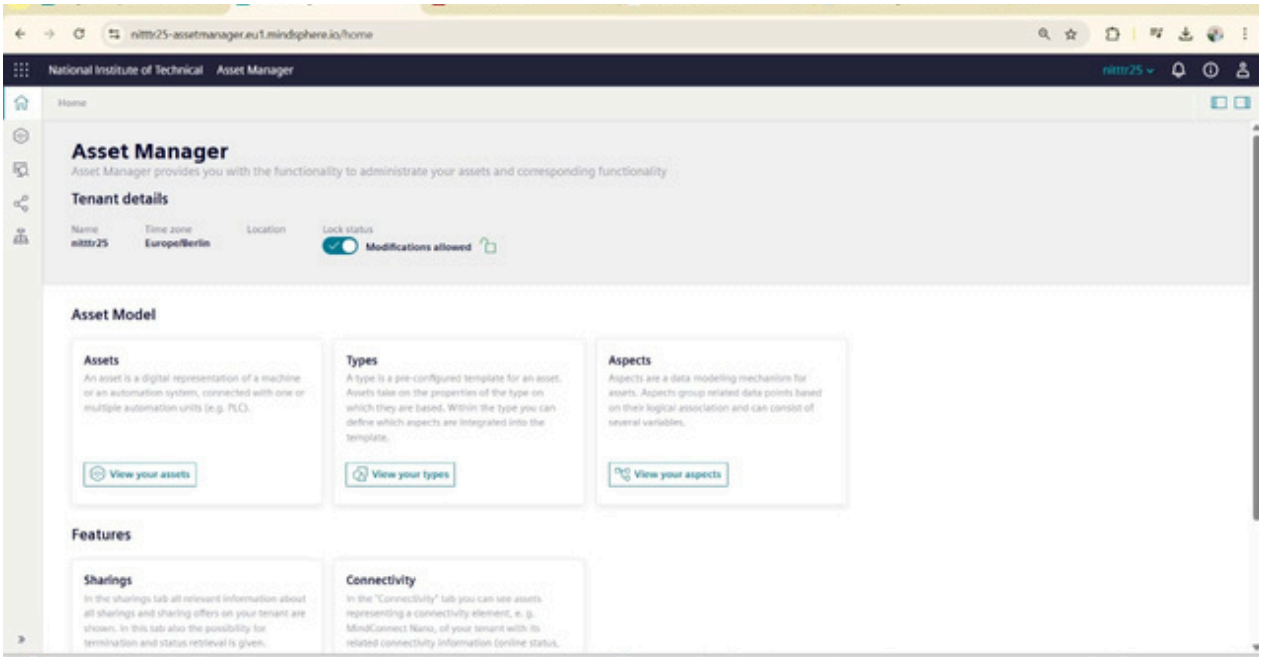
Mentored by : TOSHIT PATHAK SIR

#1 VIRTUAL ASSET

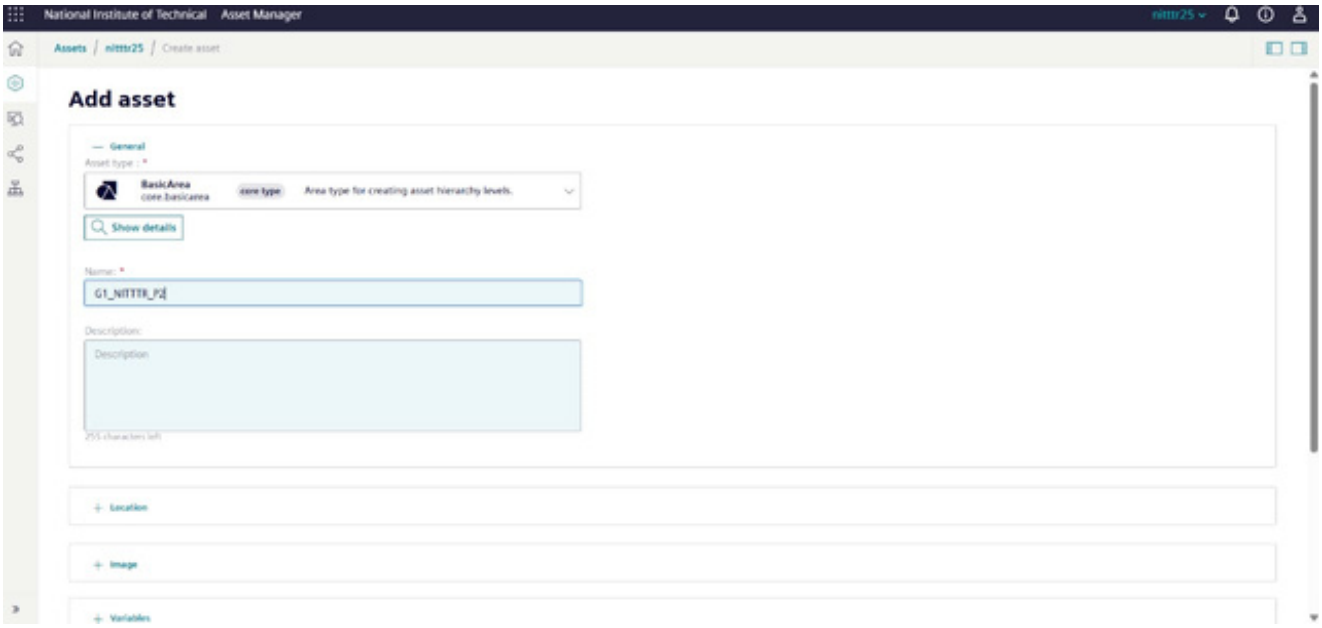
Step 01: Click on asset manager



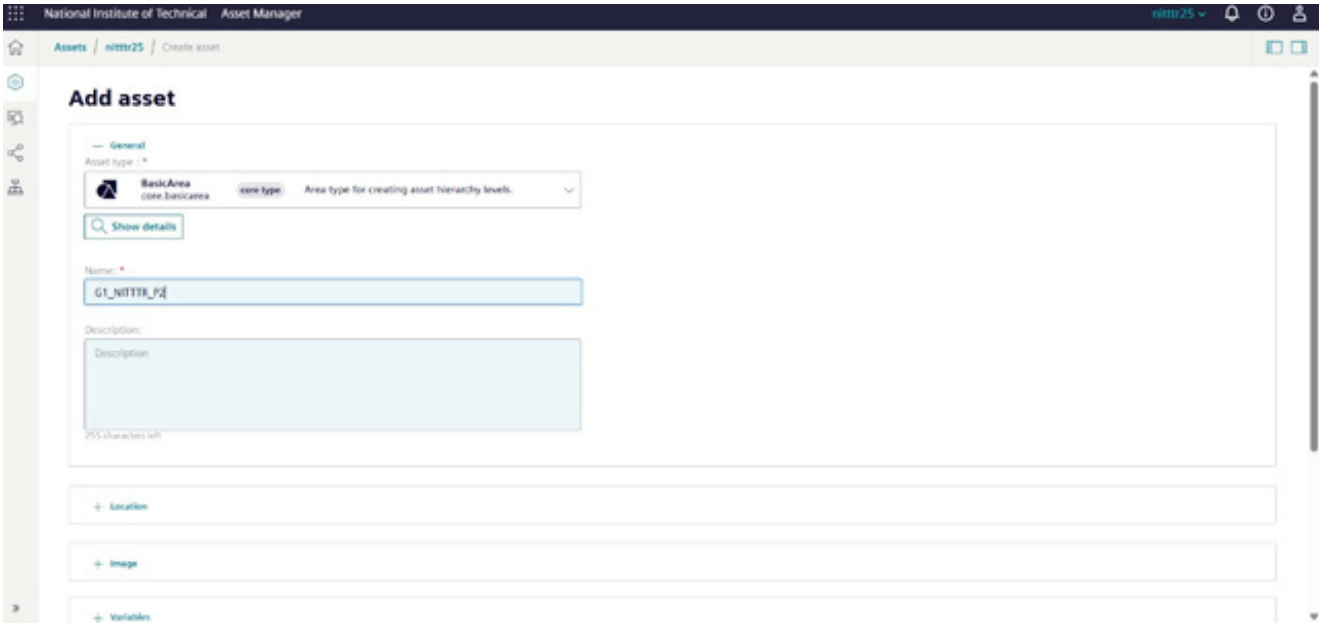
Step 02: Click on View your Aspects



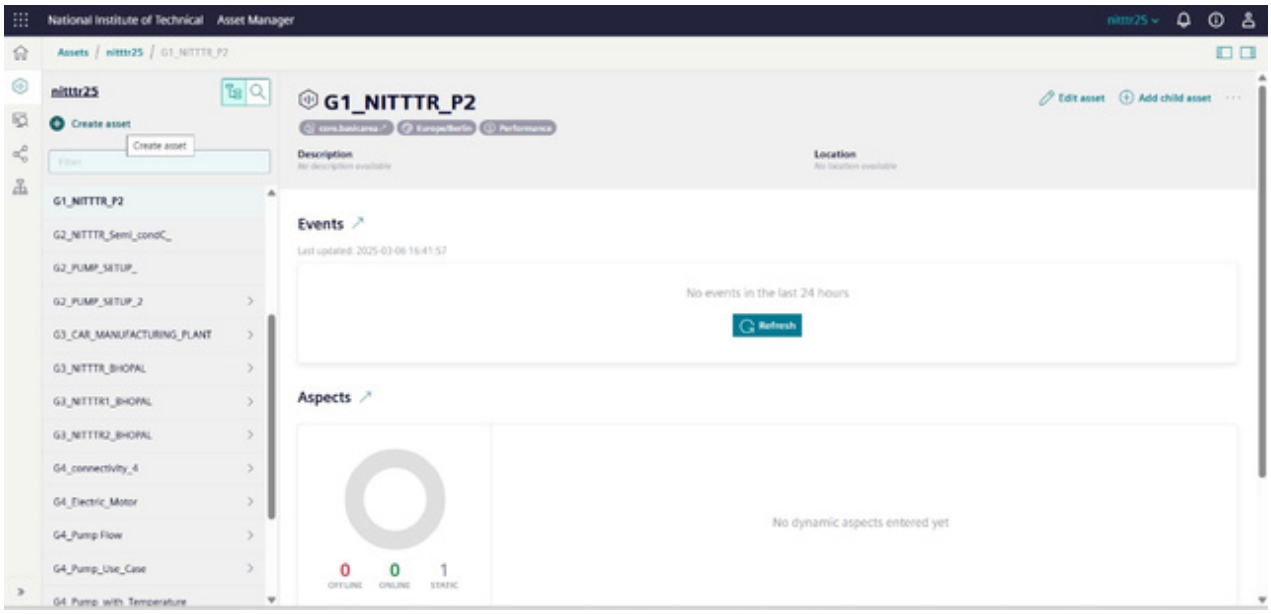
Step 03: Click on create asset and select basic area type .



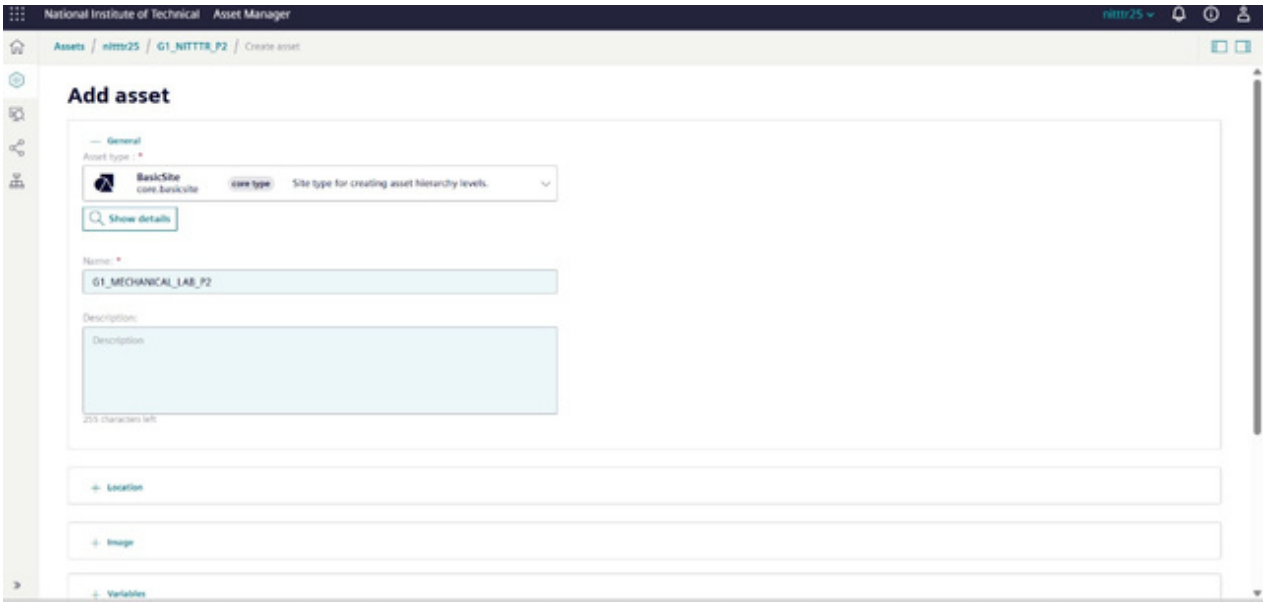
Step 04 : name it “ G1_NITTTR_P2”



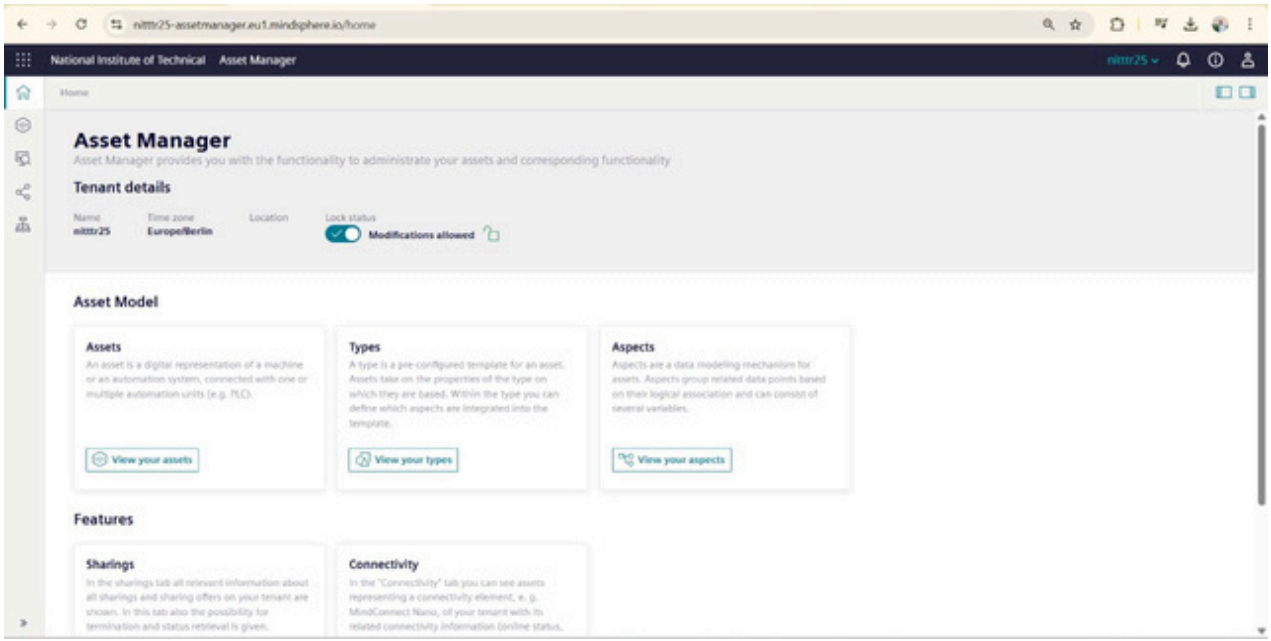
STEP 05: Click on add child asset



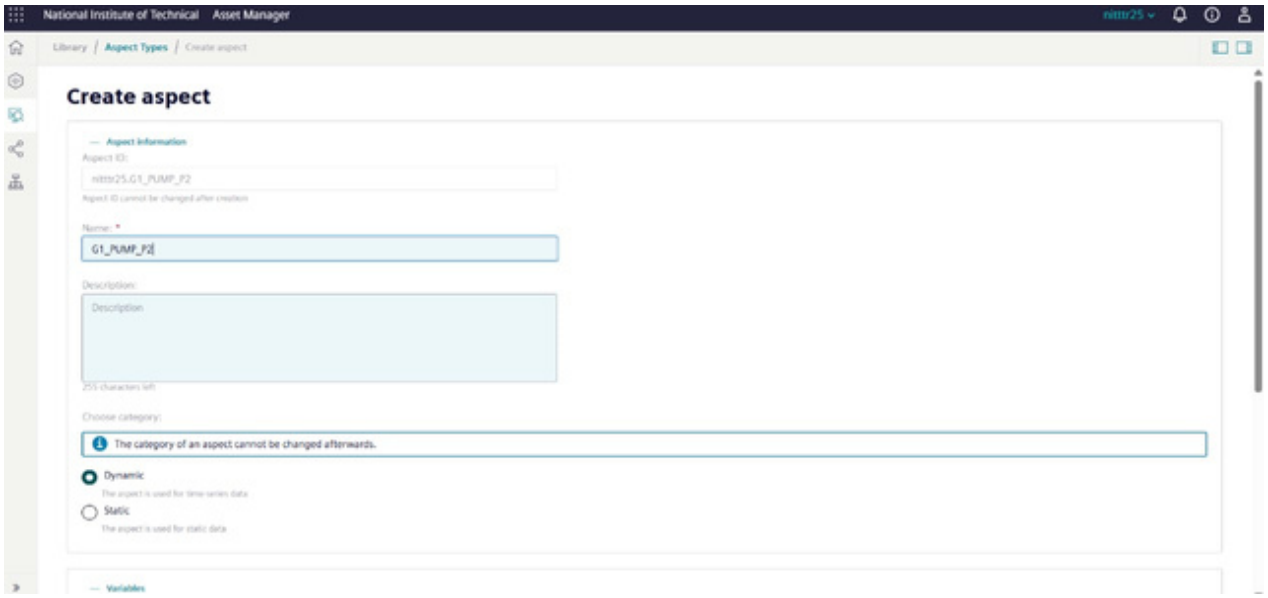
Step 06: Create basic sitetype Asset and name it “G1_MECHANICAL_LAB_P2”



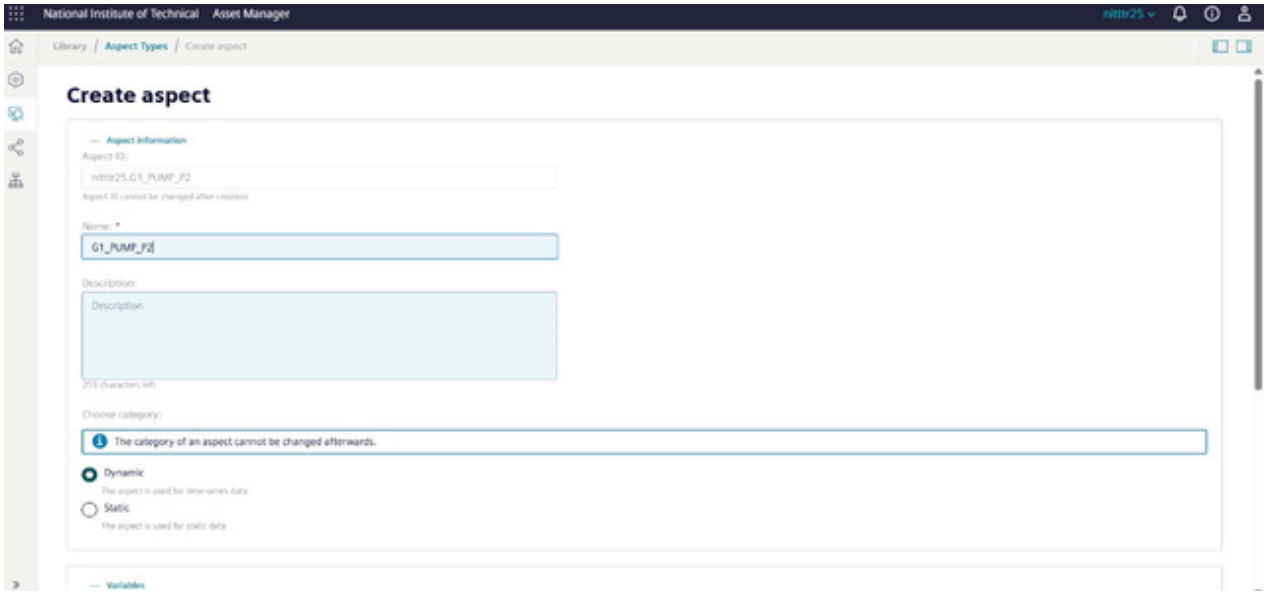
Step 07: Go to home and click on view your Aspects



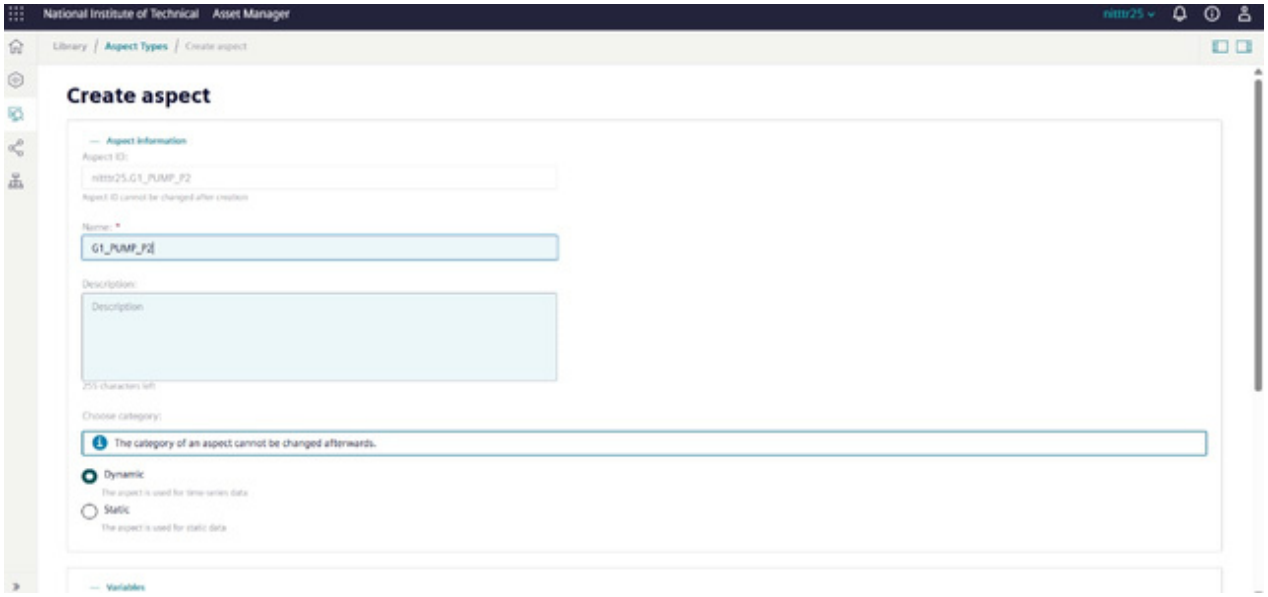
Step 08: Click on create Aspect and it will show this.



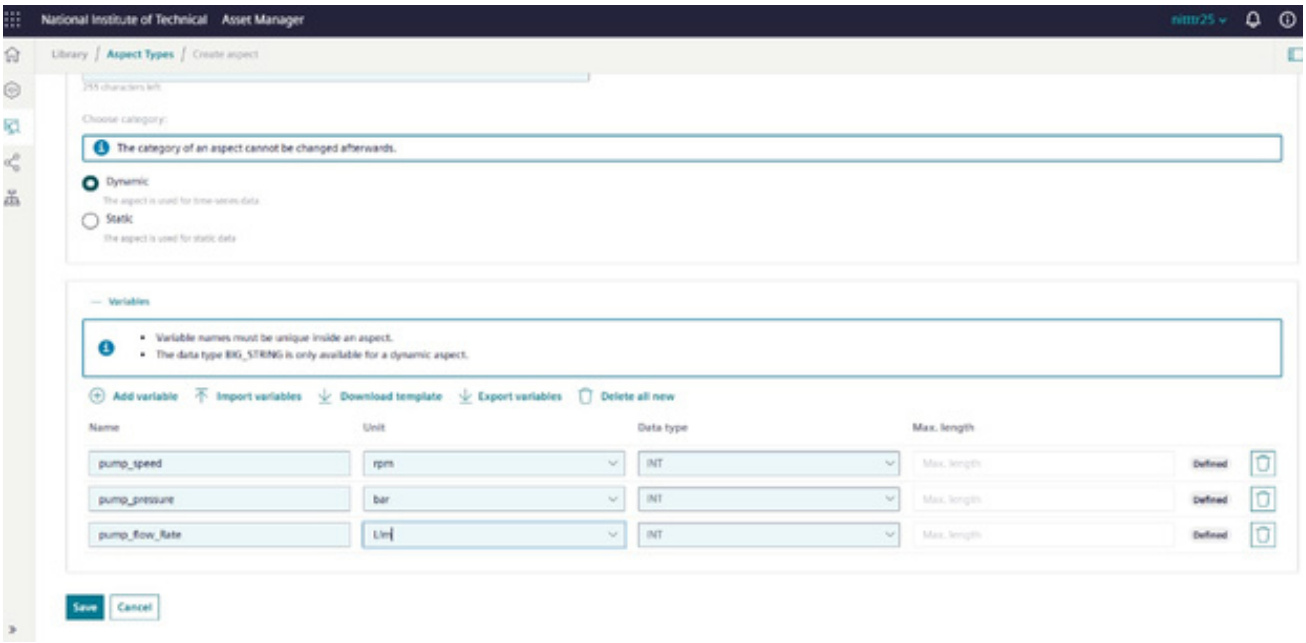
STEP 09: Create aspect and name it ” G1_PUMP_P2”



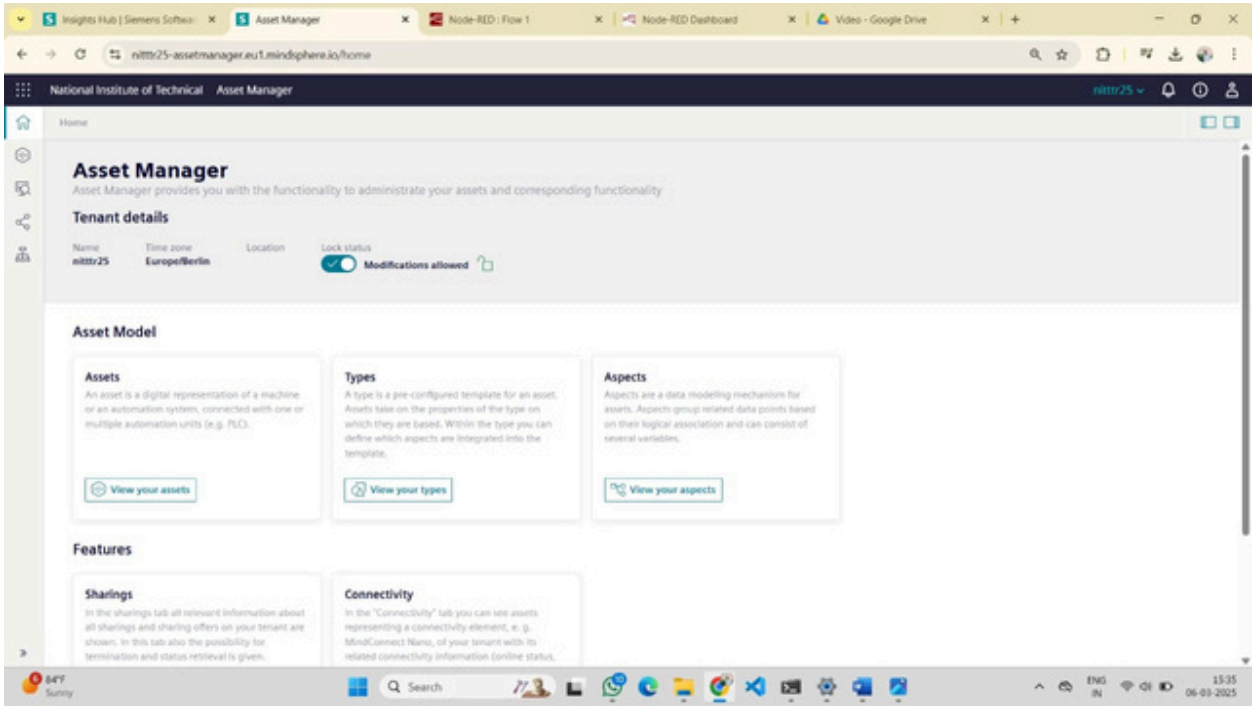
STEP 10: Scroll down and click on add variables



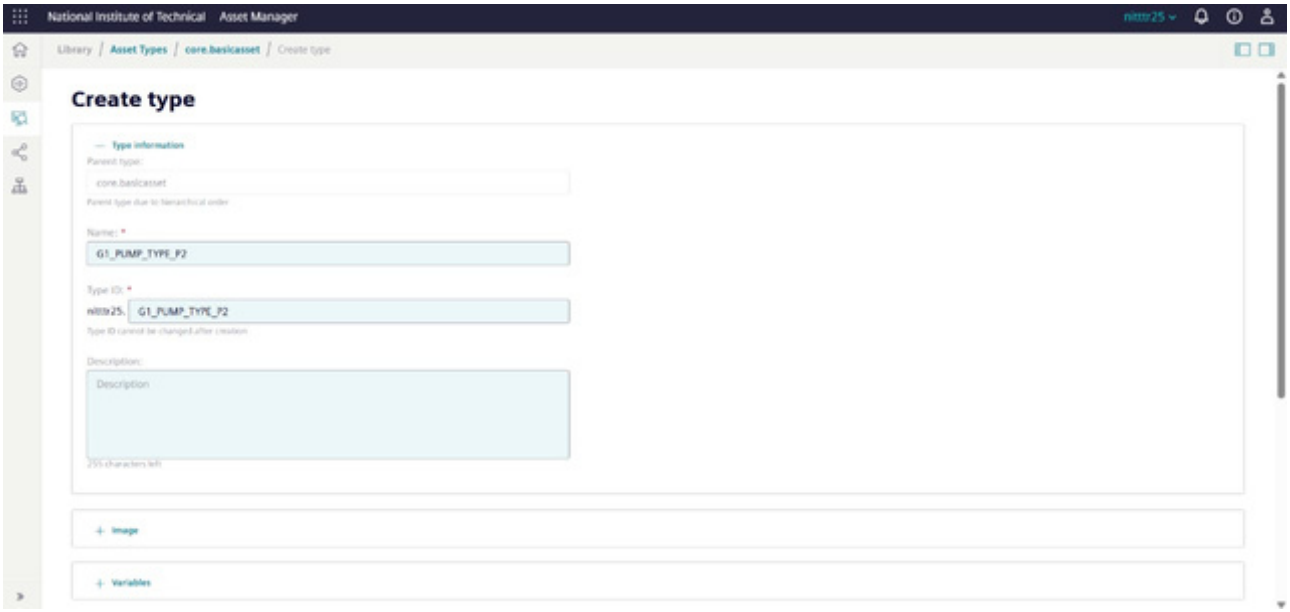
STEP 11: Add variables and name them accordingly as shown below.



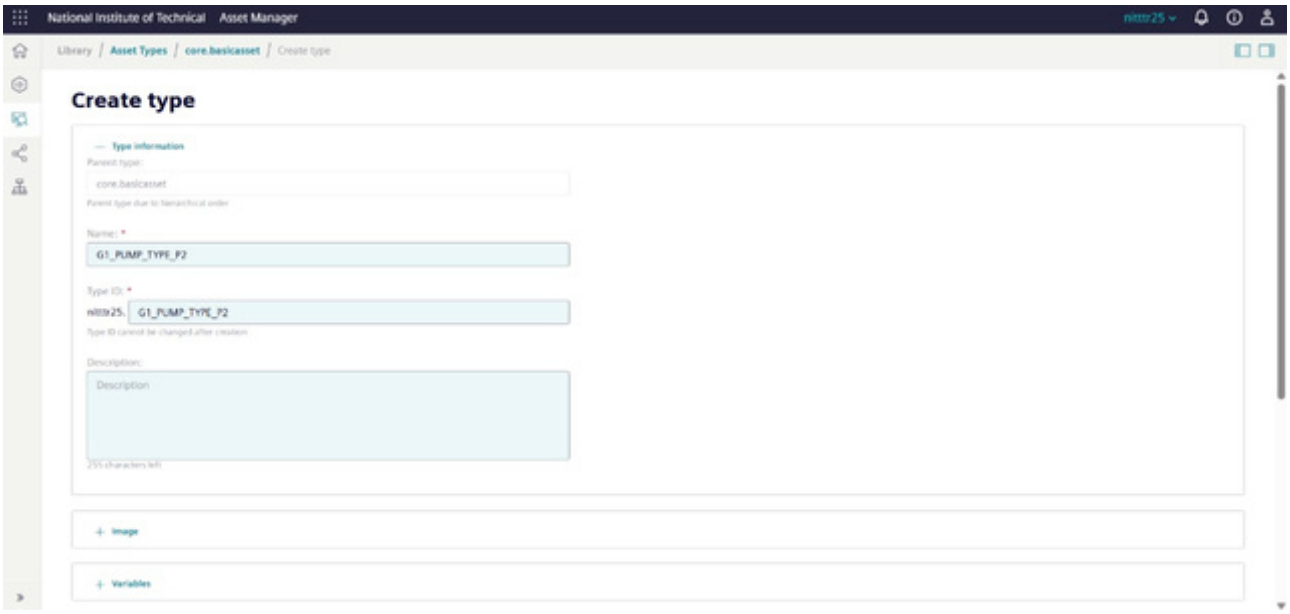
STEP 12: GO to home and click on View your types



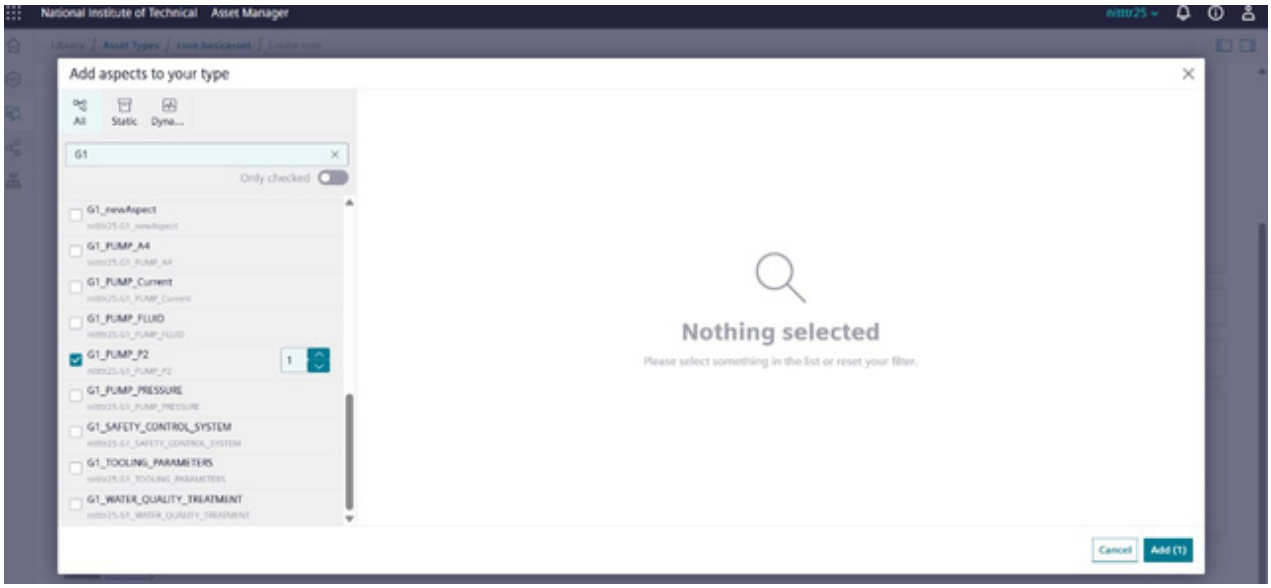
STEP 13: Click on create a type.



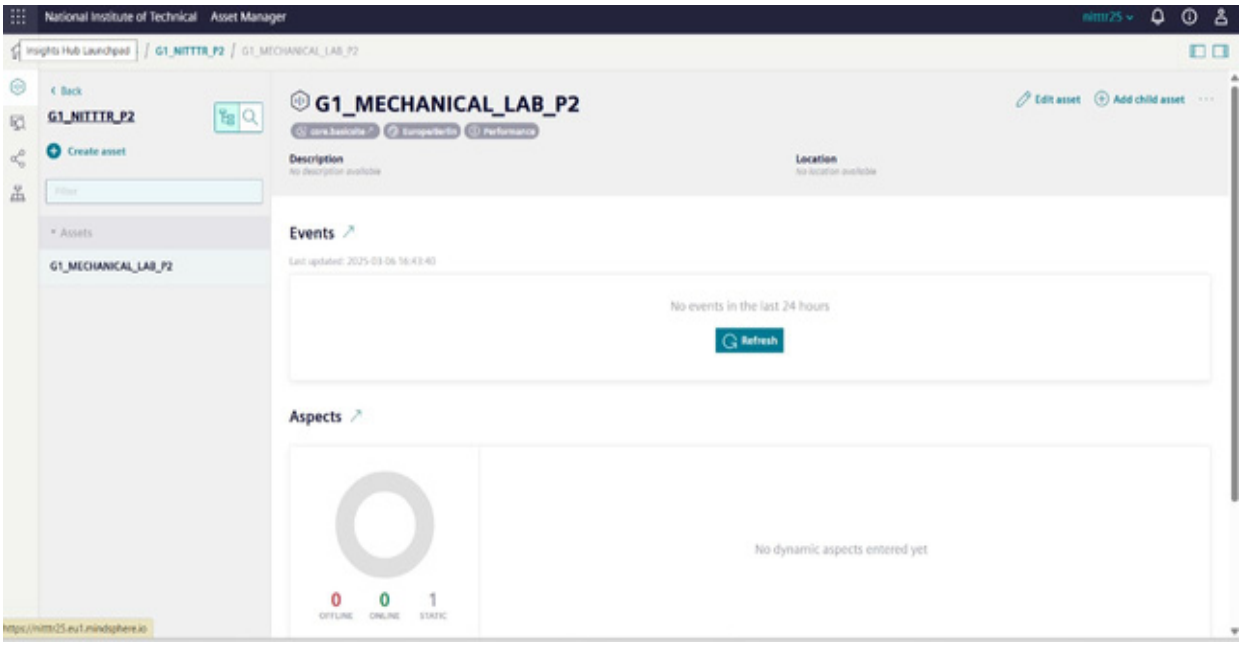
STEP 14: Create a type and name it “G1_PUMP_TYPE_P2”



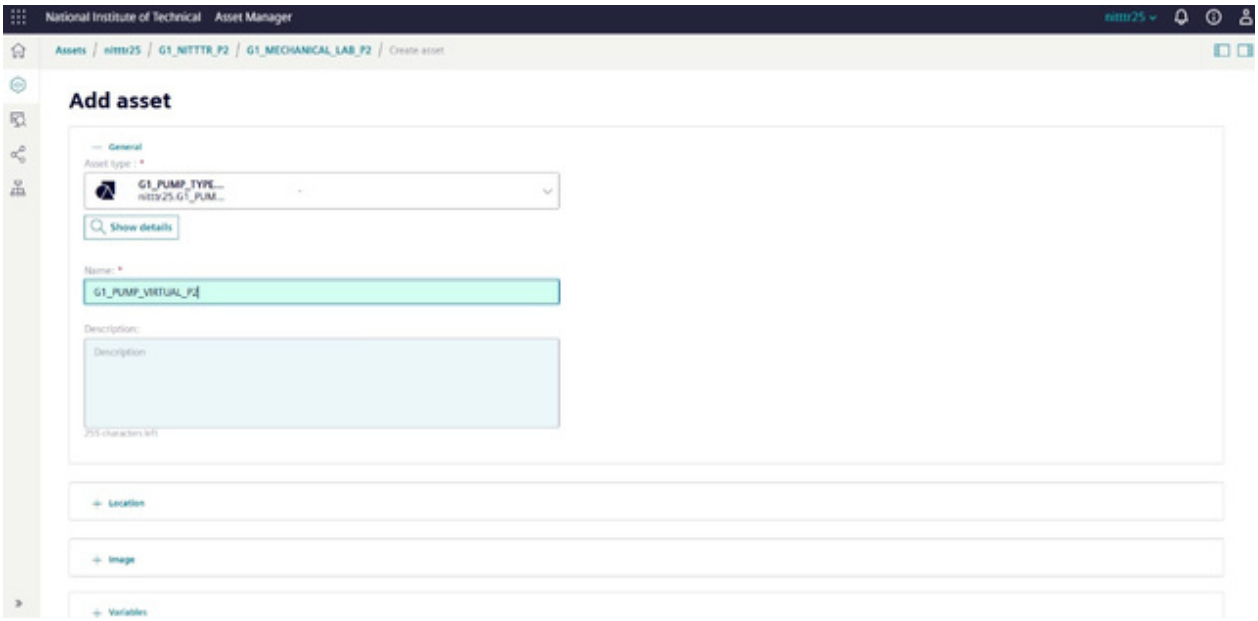
STEP 15: Scroll down and click on "+Aspects" and select "G1_PUMP_P2".



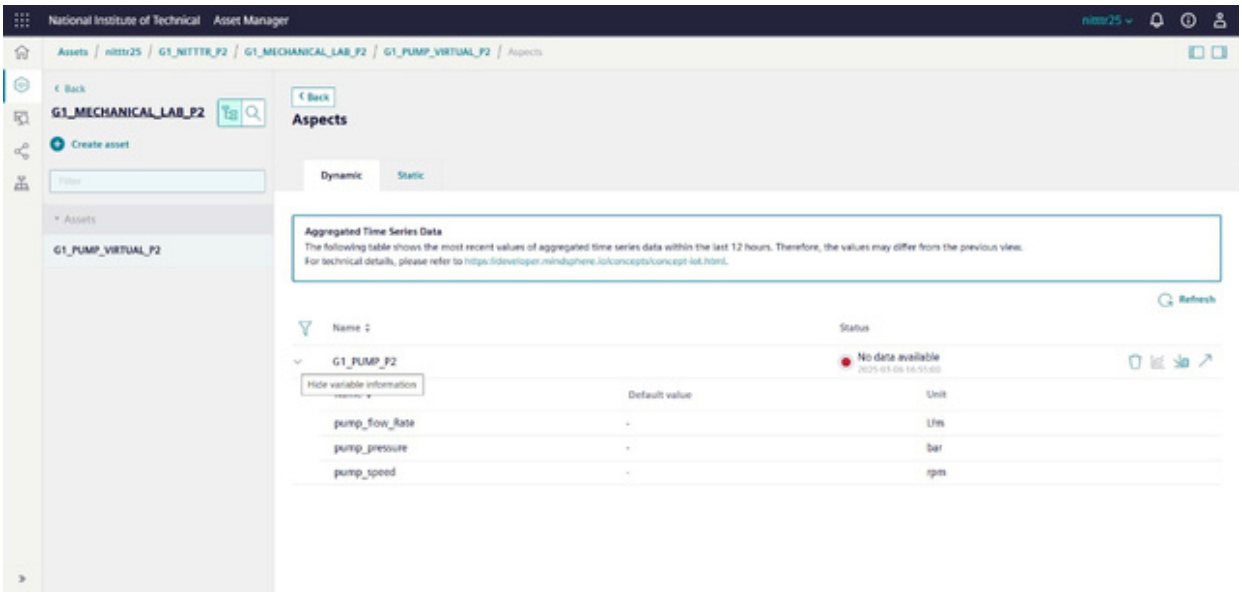
STEP 16: Go to assets and go to “G1_MECHANICAL_LAB_P2” And click on Add Child Asset



STEP 17: Create child asset of type ”G1_PUMP_TYPE_P2” And name it “G1_PUMP_VIRTUAL_P2”

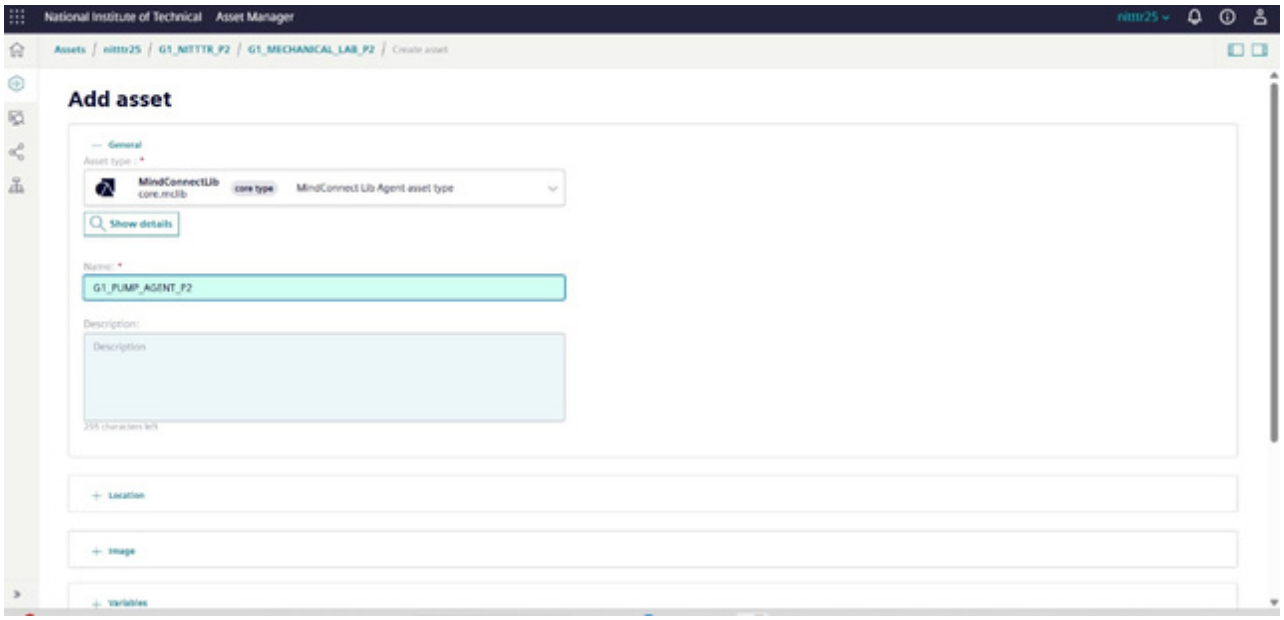


STEP 18: “G1_PUMP_VIRTUAL_P2” is created successfully.

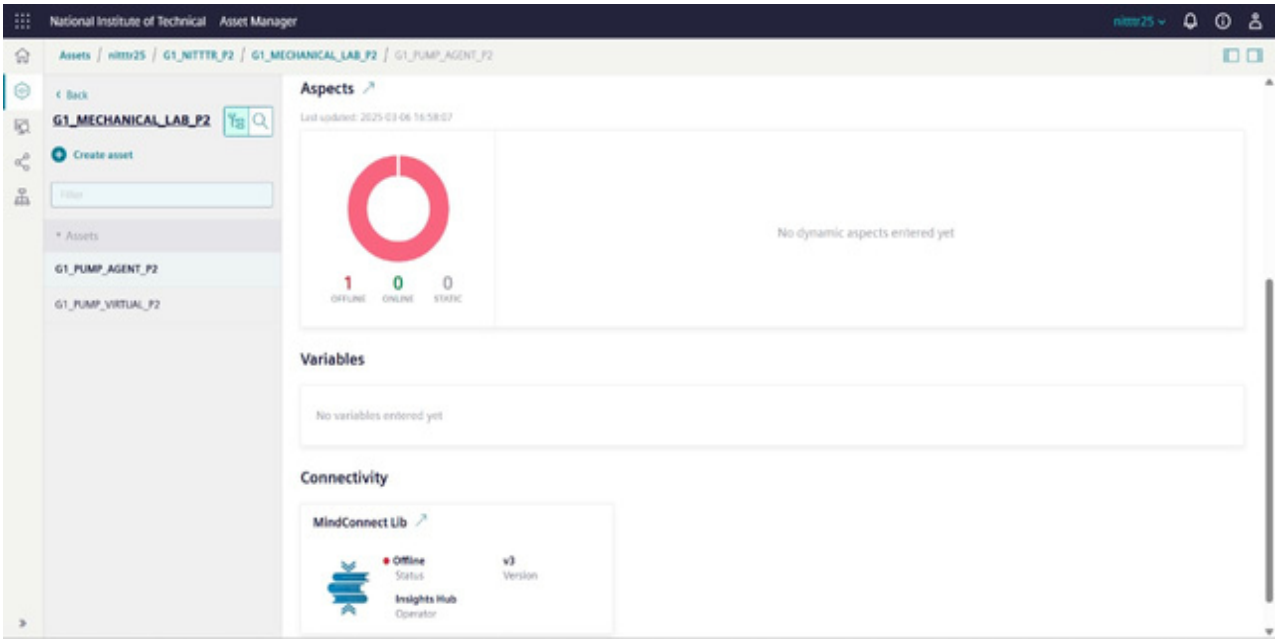


#2 CREATING AGENT ASSET

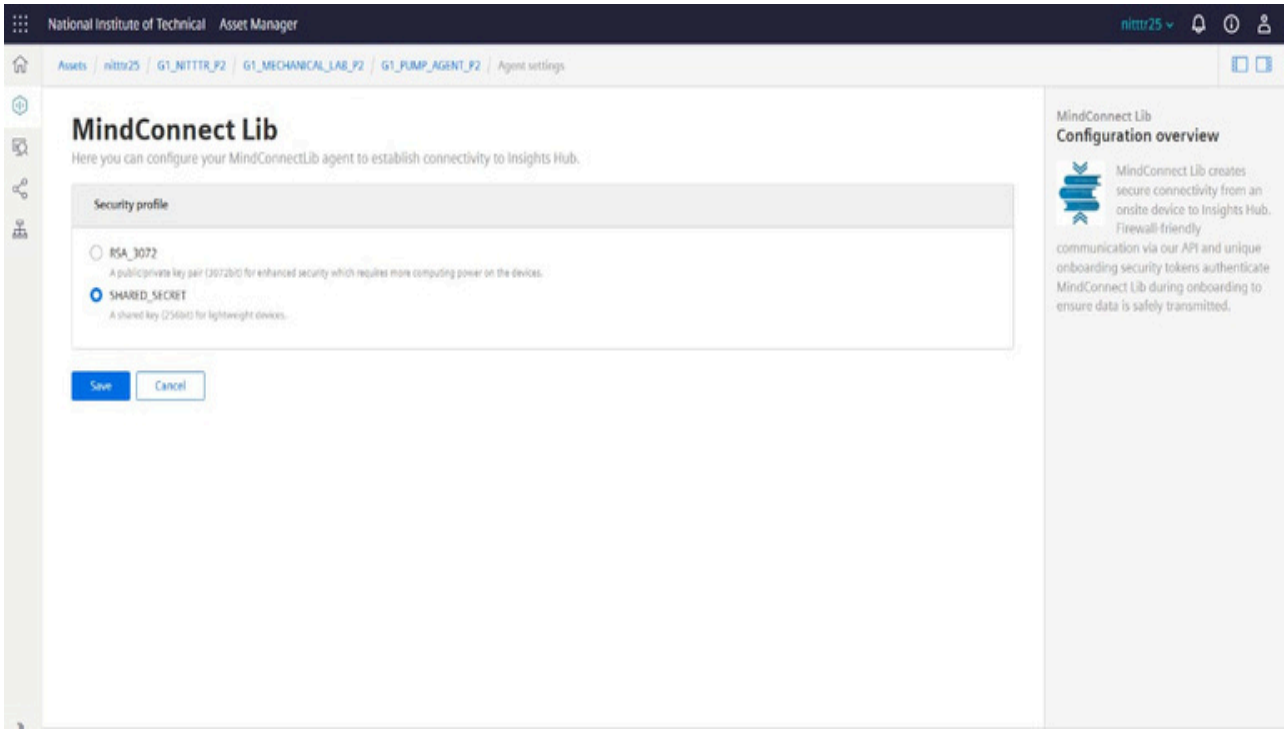
STEP 19: Create another child asset of " G1_MECHANICAL_LAB_P2" and name it "G1_PUMP_AGENT_P2 " of type "mindconnectlib"



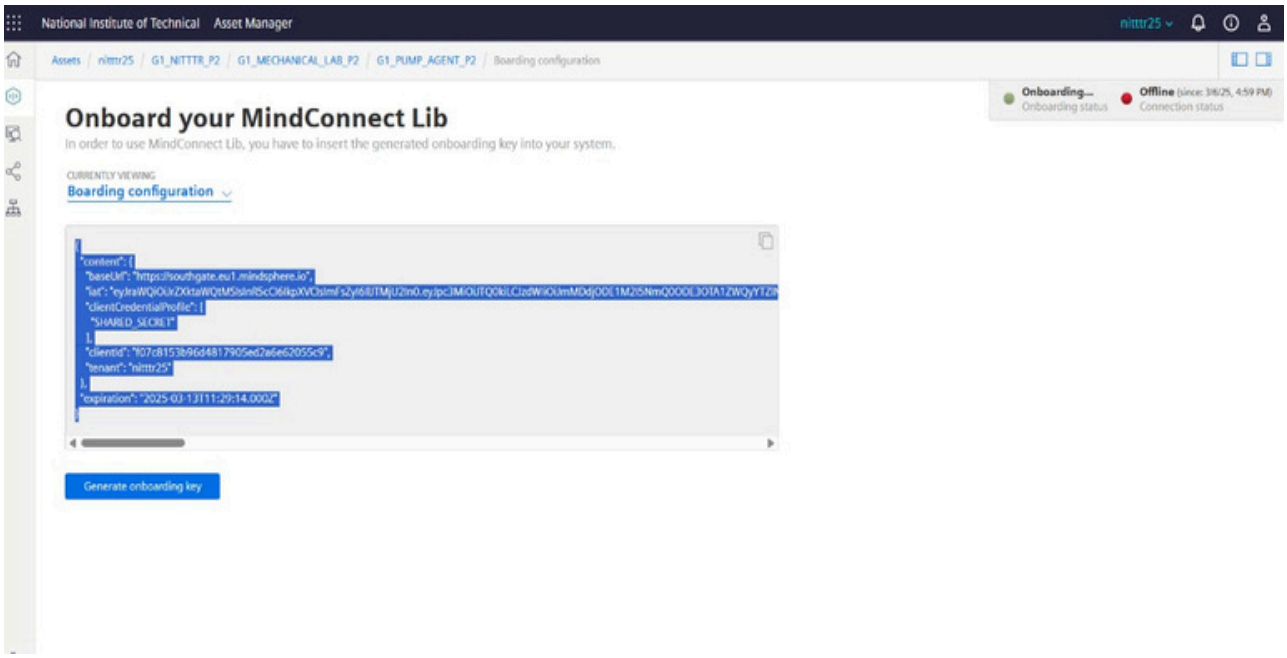
STEP 20: Click on connectivity in "G1_PUMP_AGENT_P2" asset



STEP 21: Select shared secret and save it.

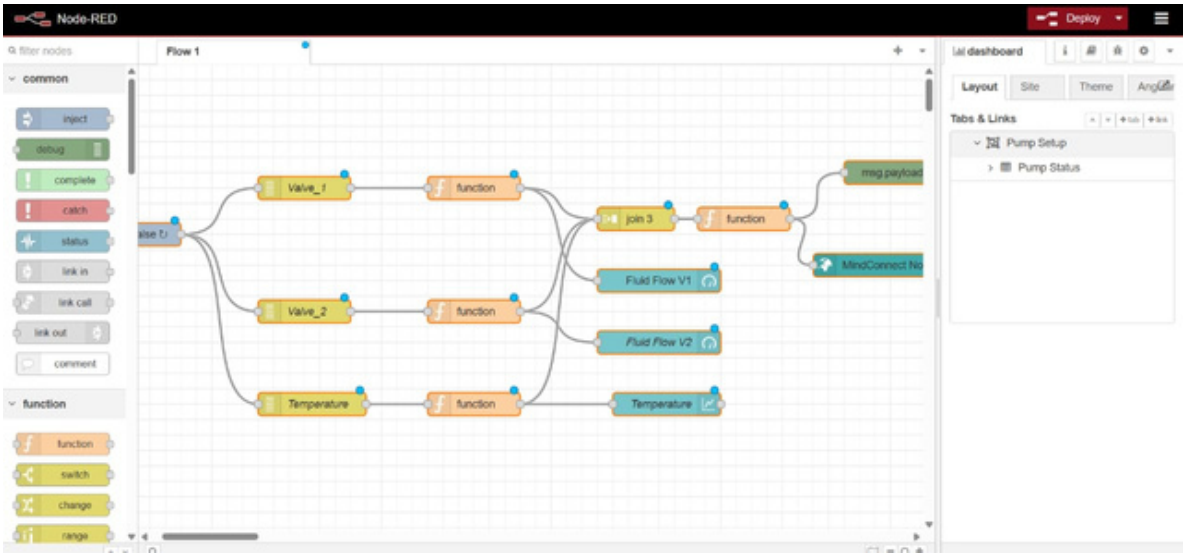


STEP 22: Click on generate onboarding key and copy it.

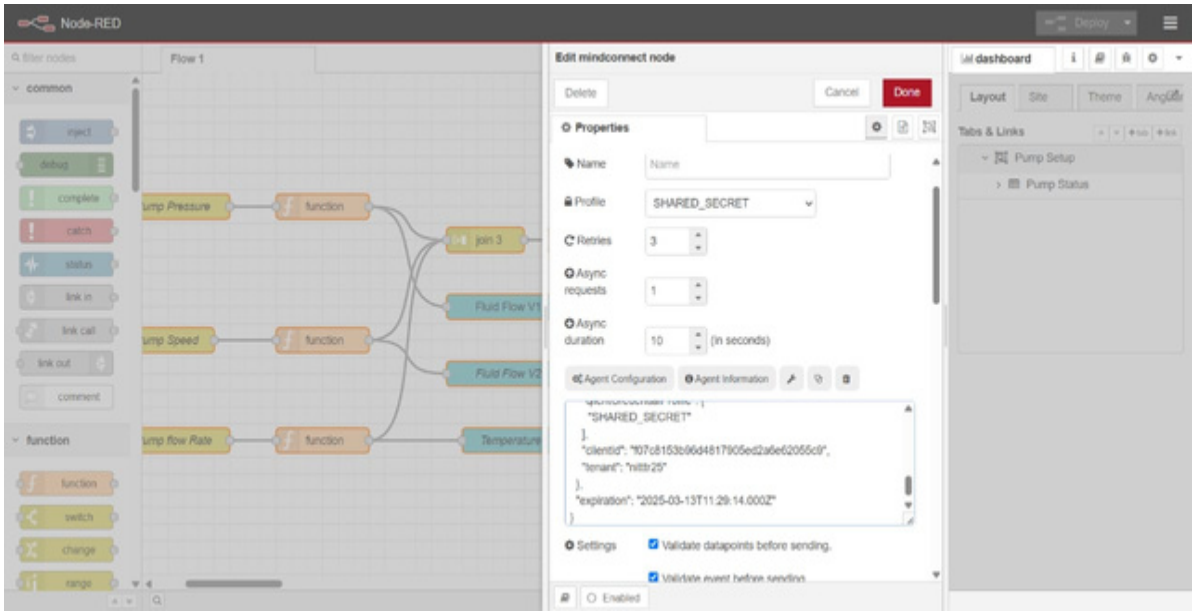


#3 NODE-RED

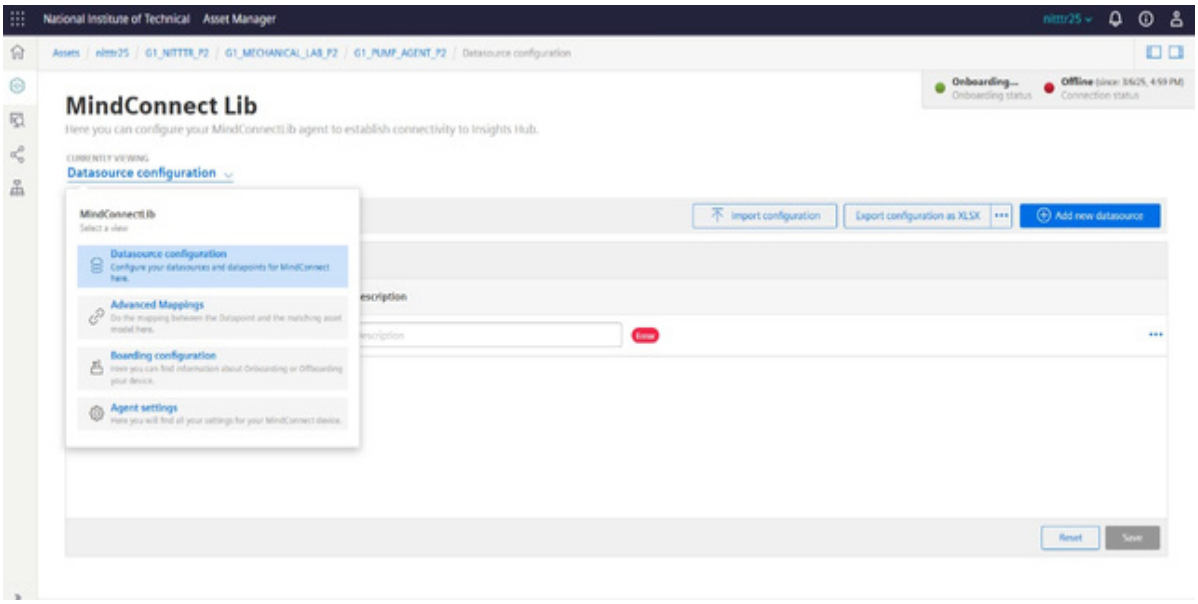
STEP 23: GO to Node-red and click on mindconnect.



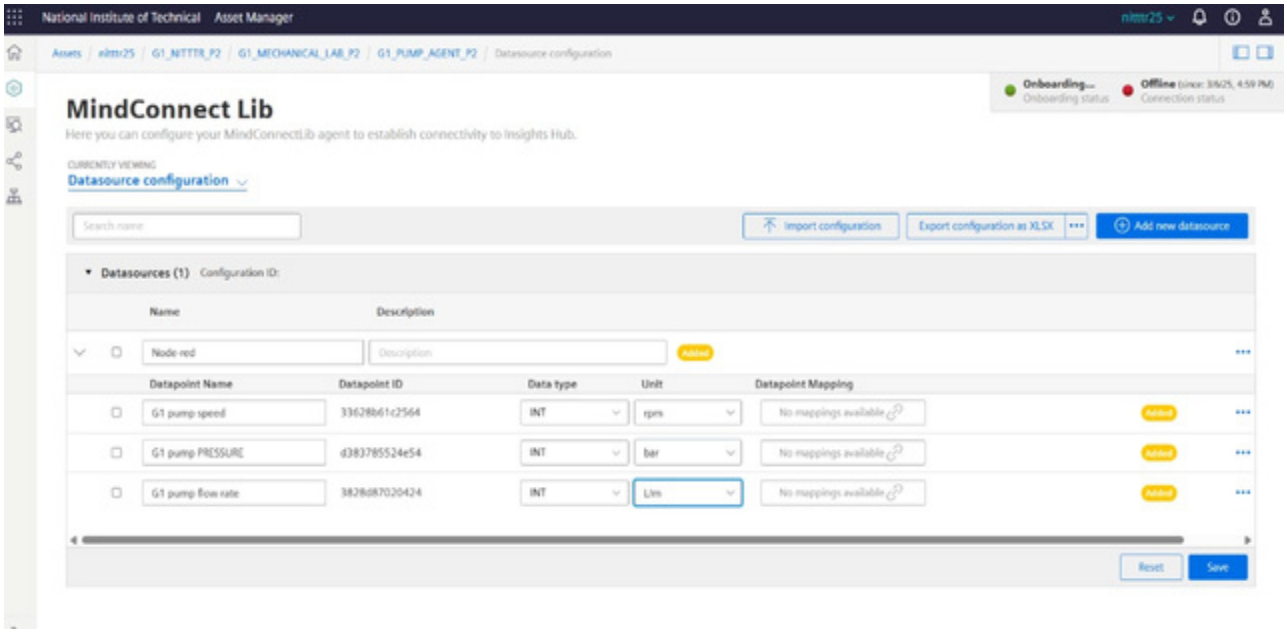
STEP 24: Paste your copied onboarding key here and deploy it.



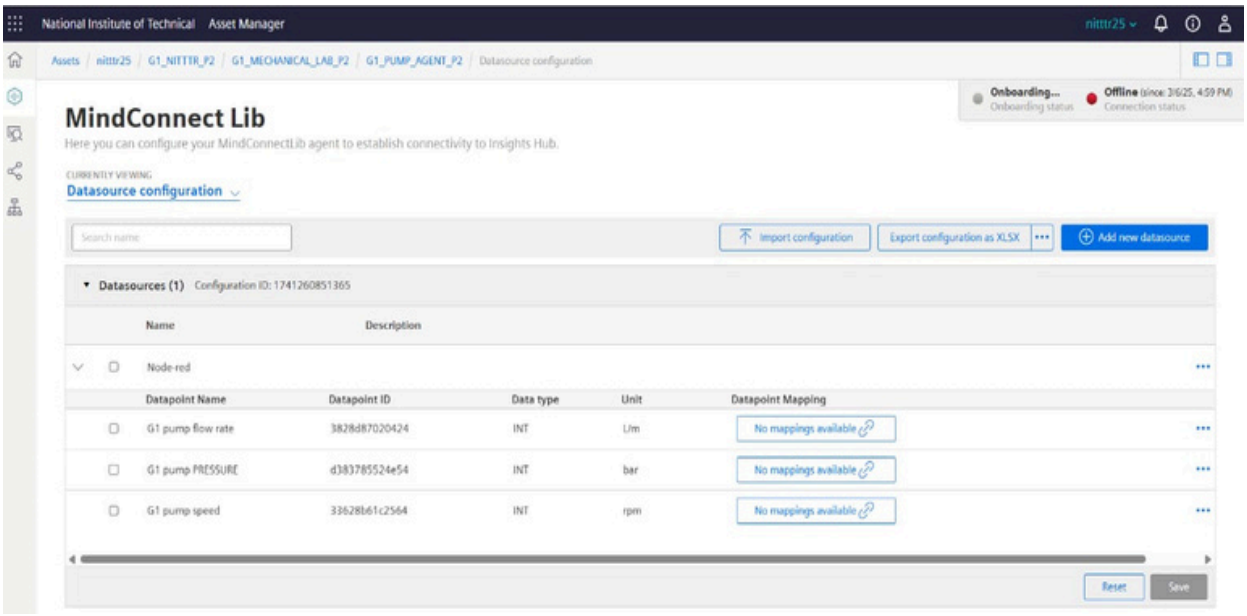
STEP 25: Click on datasource configuration



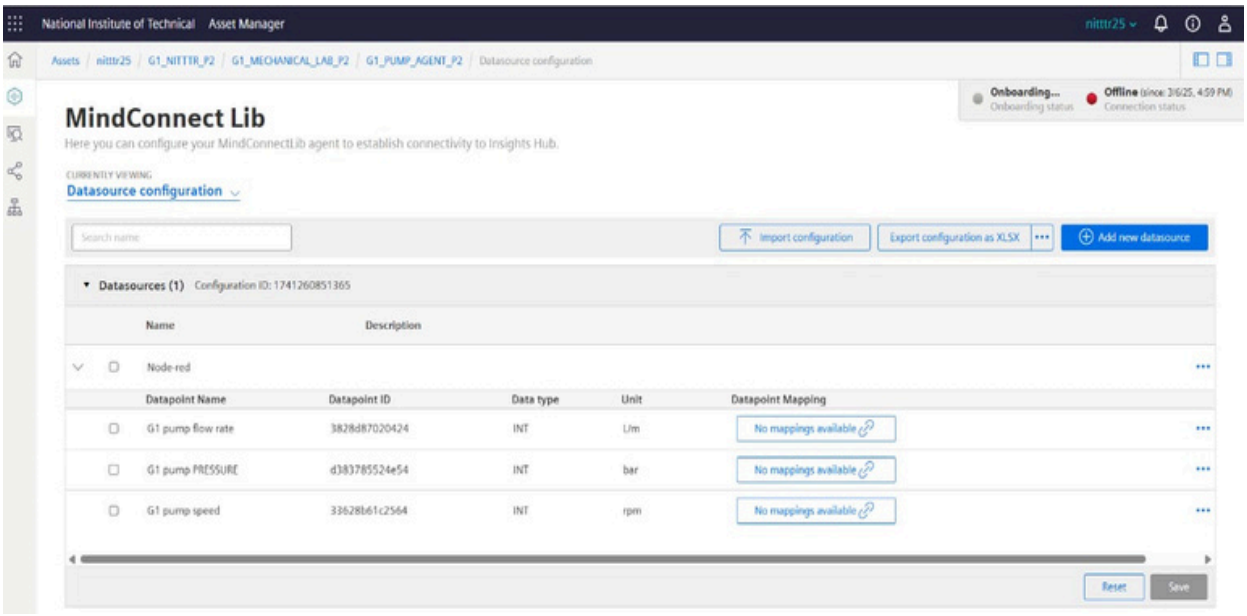
STEP 26: Add a data source and name it “NODE-RED”



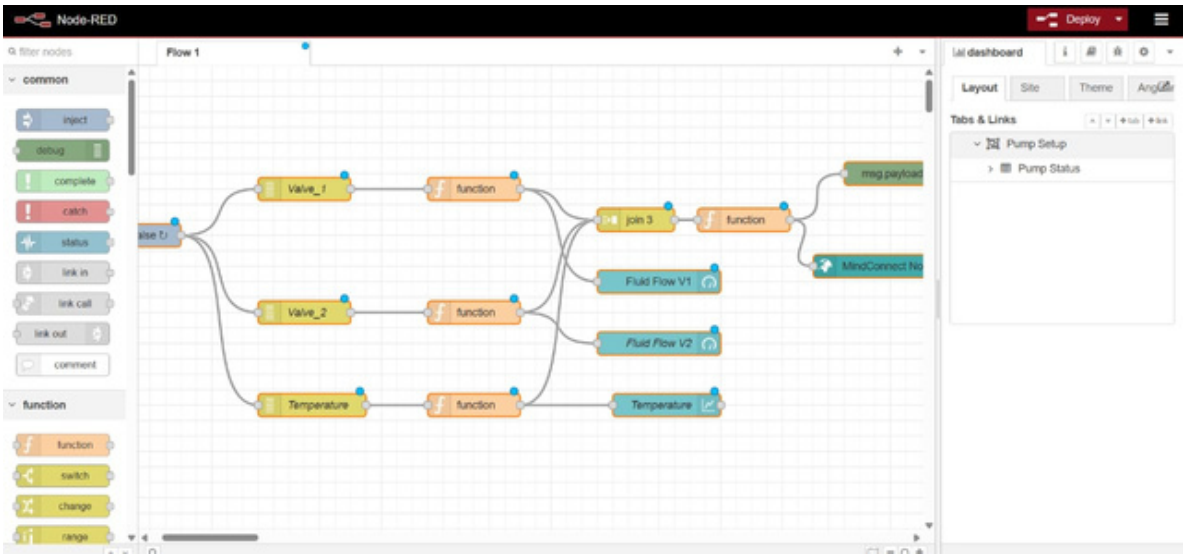
STEP 27: Add datapoints and name them as shown.



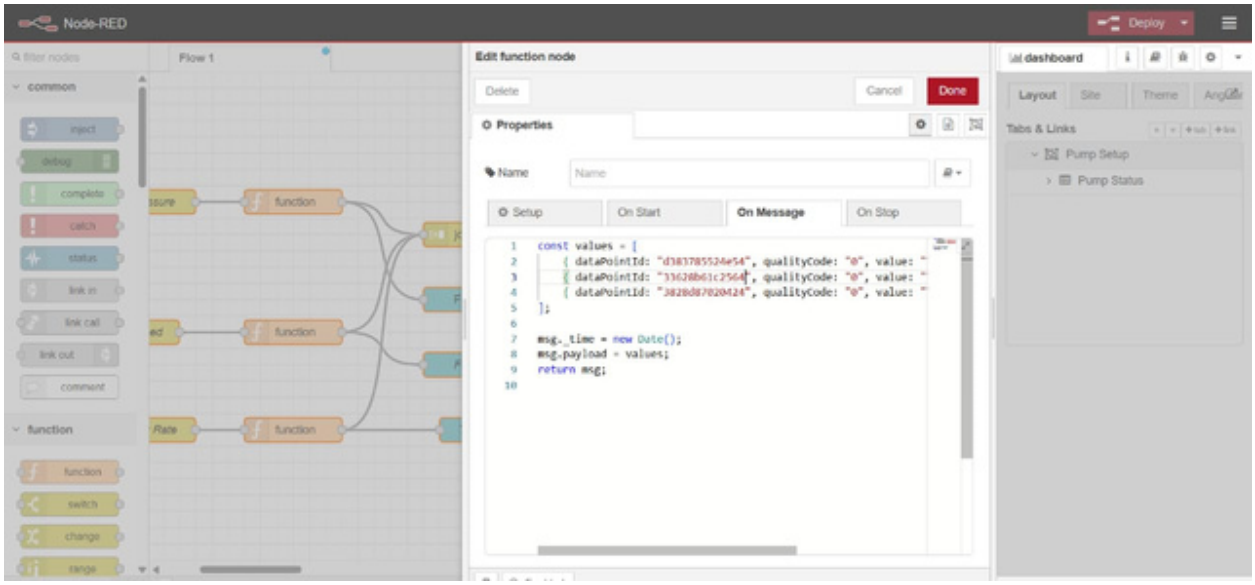
STEP 28: Copy datapoint Ids



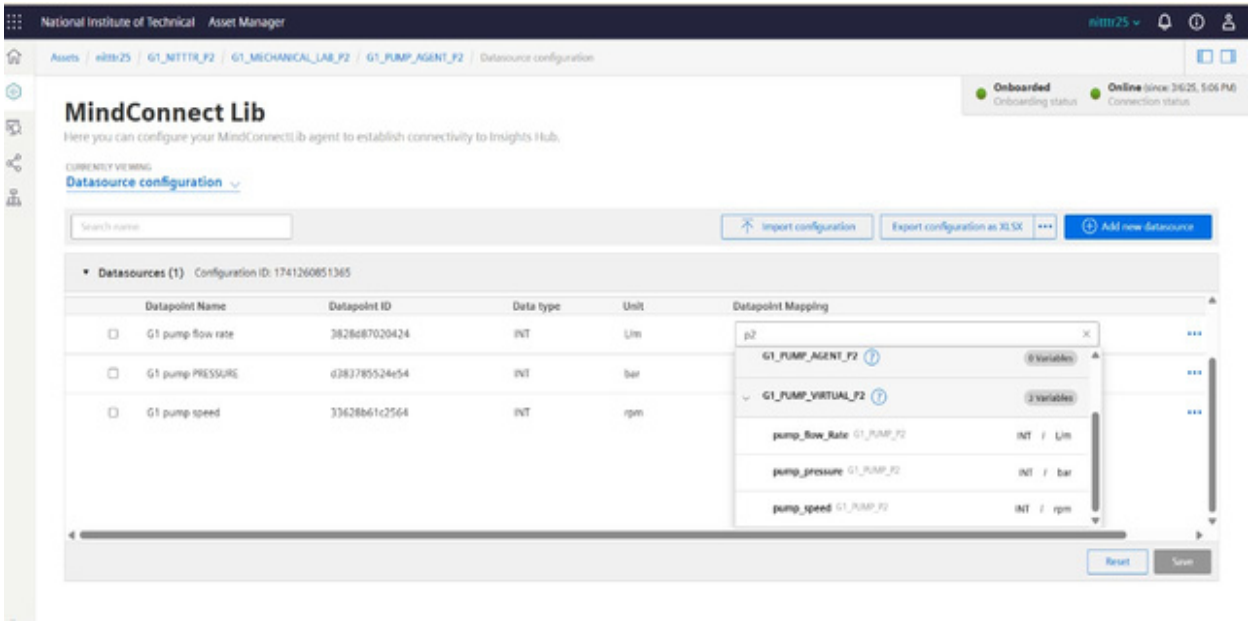
STEP 29: Go to node-red and click on function as shown below.



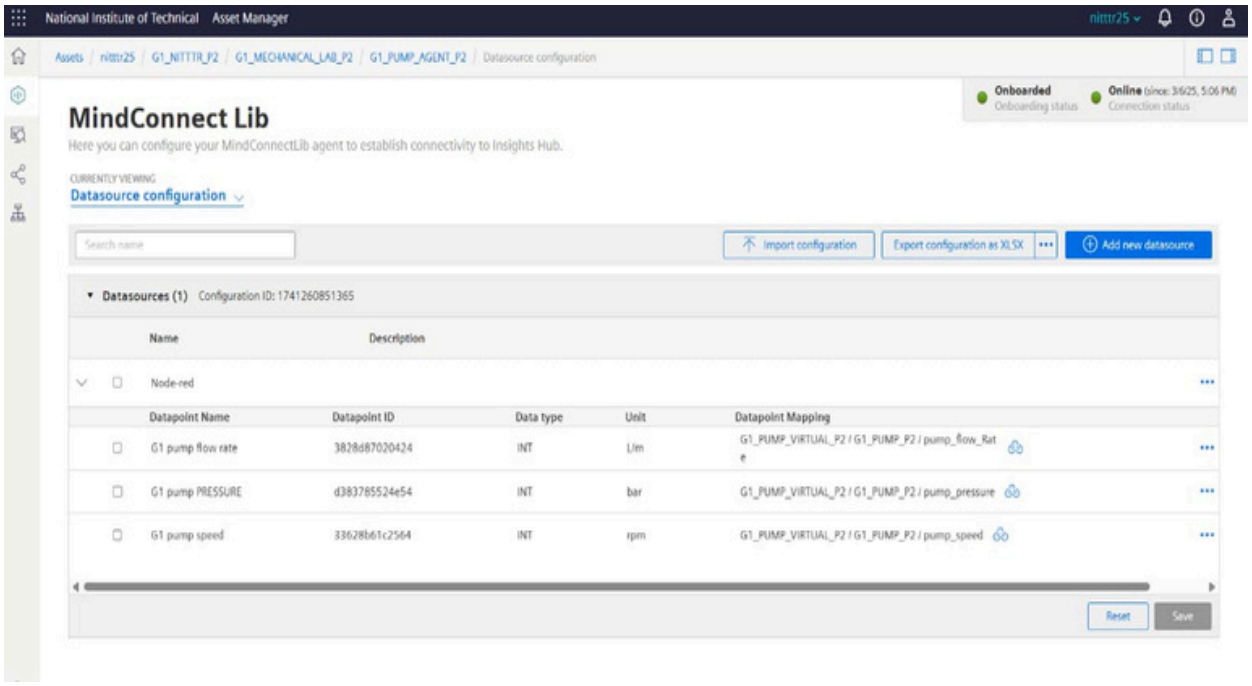
STEP 30: Paste those copied ids of data points here.



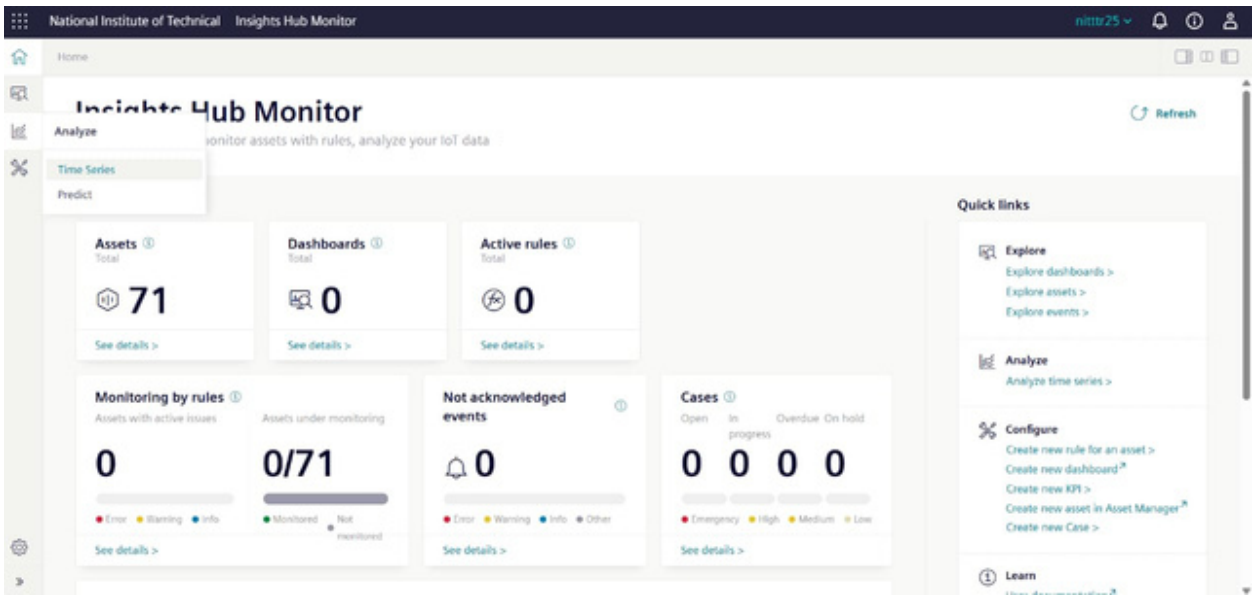
STEP 31: To add mappings , search your virtual asset ..



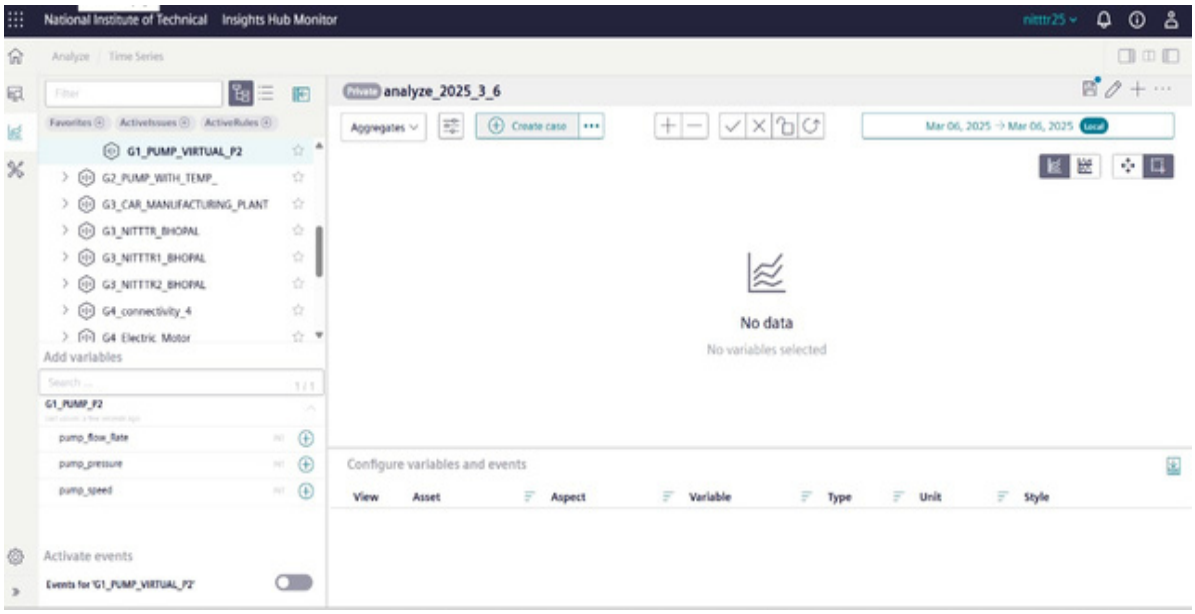
STEP 32: Add mappings accordingly and reset it.



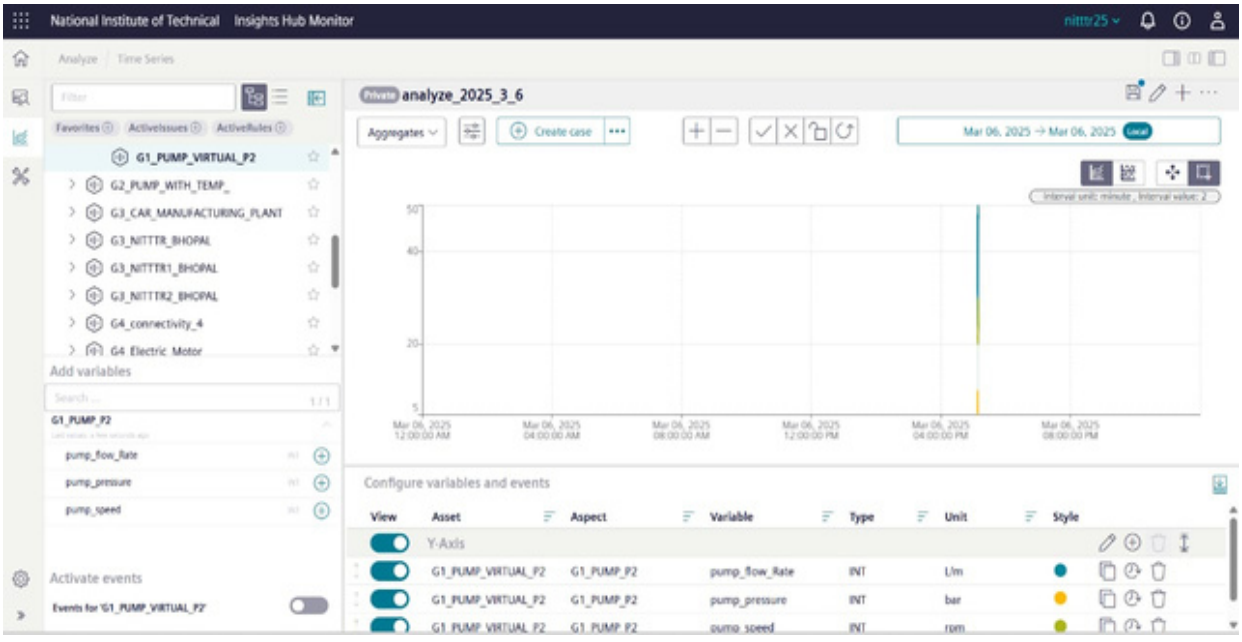
STEP 33: Go to monitor and click on time series as shown below



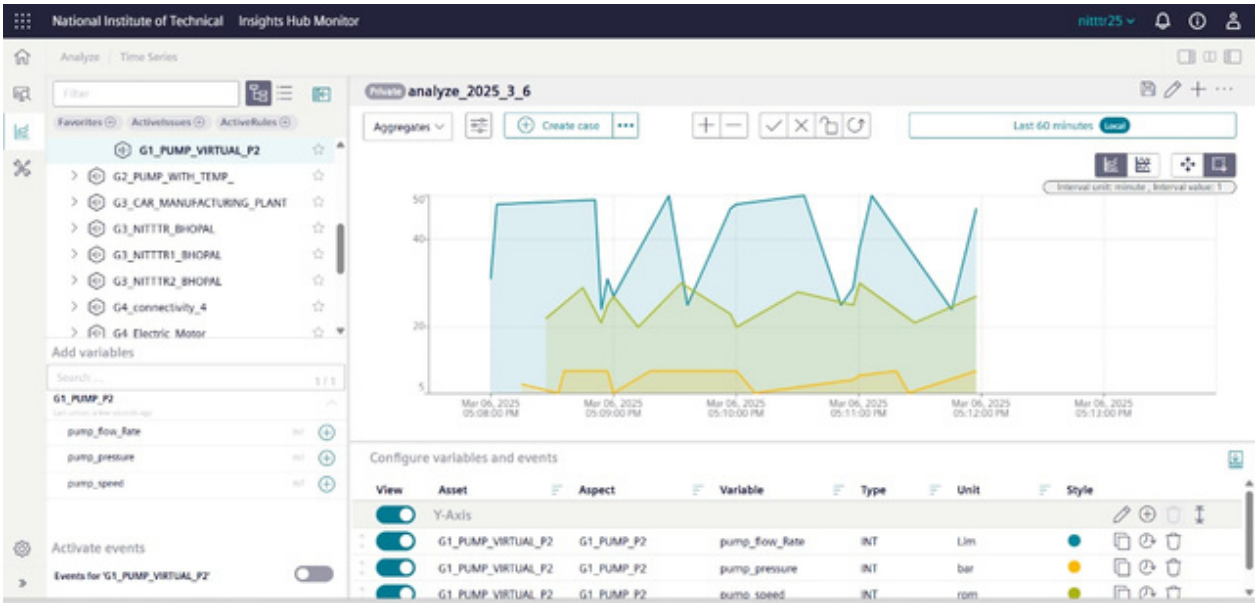
STEP 34: Add this variables by clicking on “+”



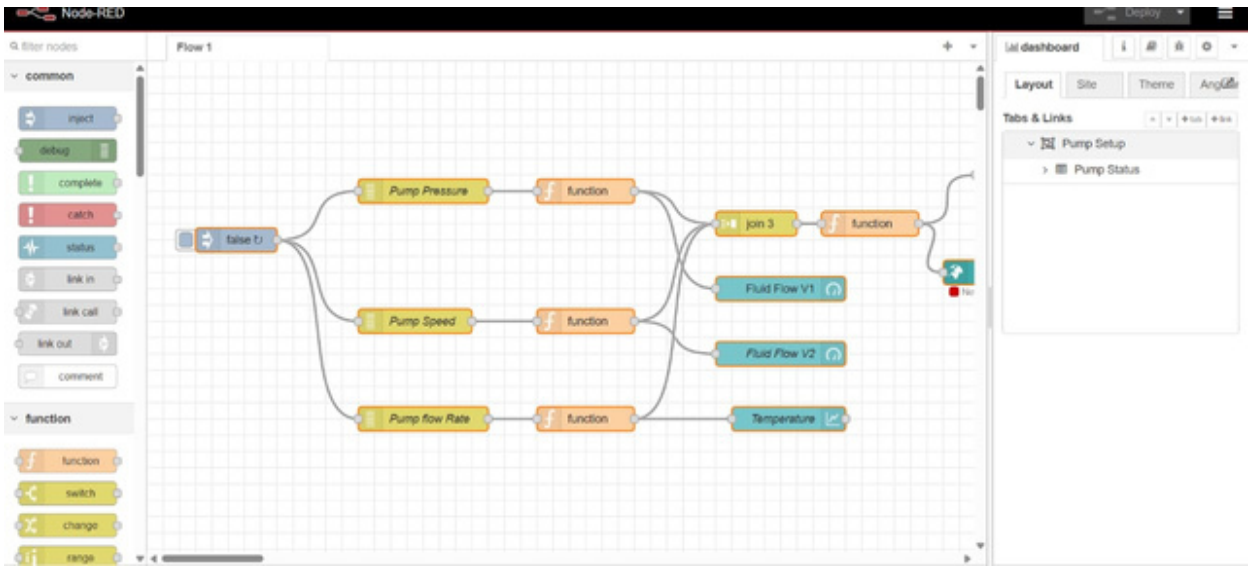
STEP 35: It will look like this after adding all variables.



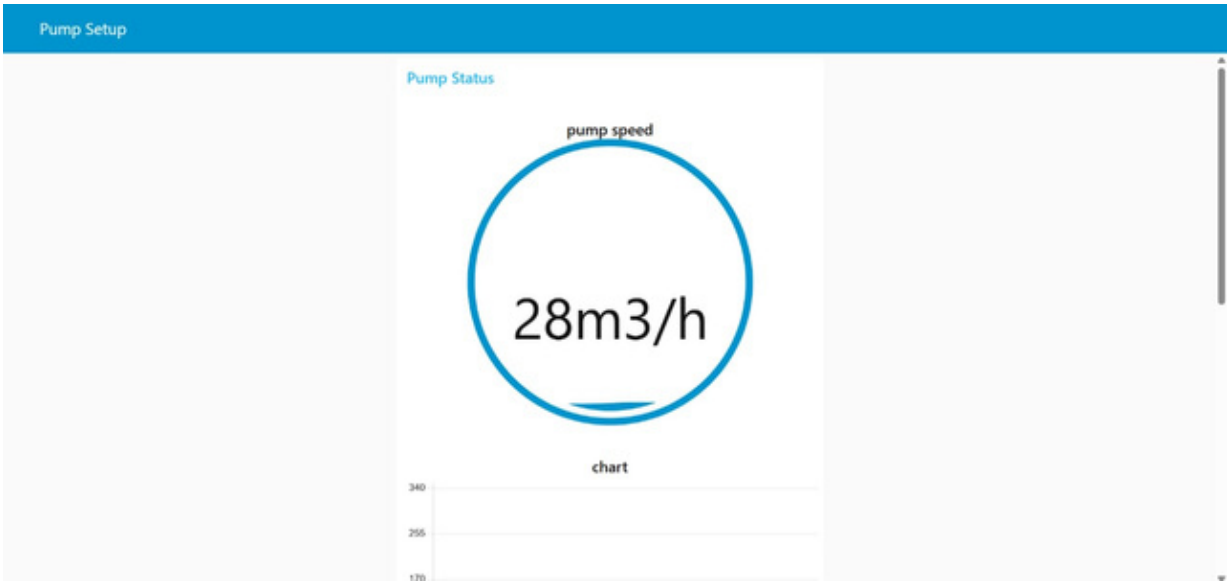
STEP 36: Zoom in the graph.



STEP 37: Go to node-red dashboard.



STEP 38: Pump speed



STEP 39: Pump flowrate

STEP 40: Pump pressure