



*INTELLIGENT WATER DISTRIBUTION & MONITORING
SYSTEM PROJECT SCREENSHOTS*

Prepared by :

Nawres mougou

Nawresmougou274@gmail.com



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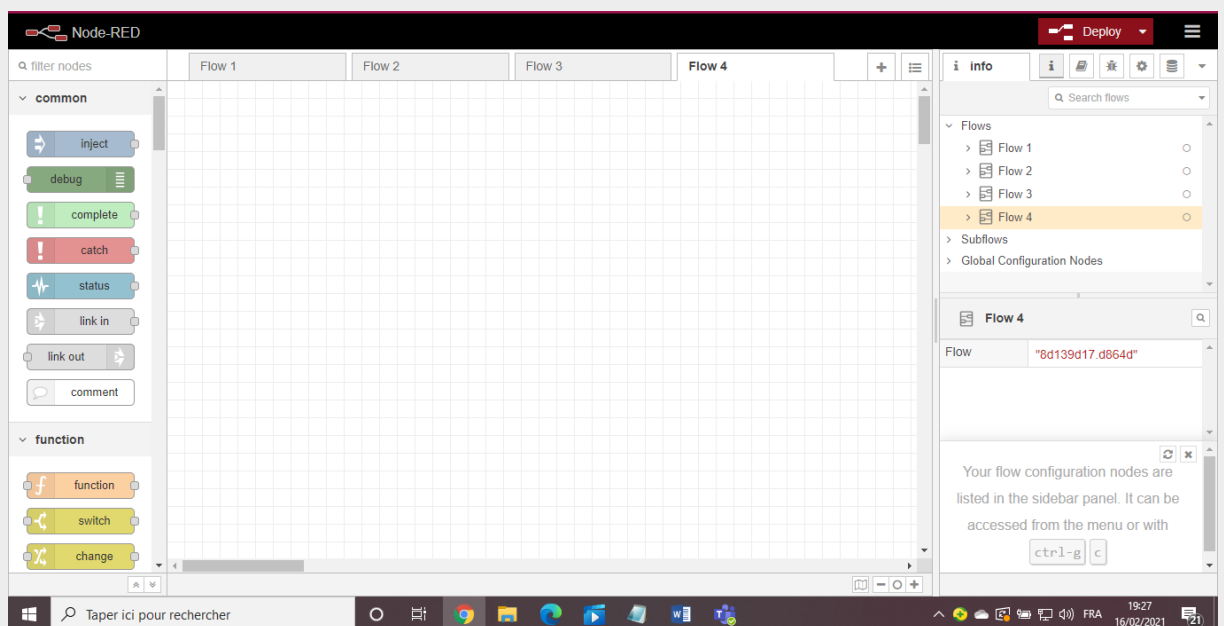
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Submit

- Create and launch Node-RED instance :





- Create An IBM Watson IoT Platform:

IBM Cloud

Rechercher des ressources et des offres...

Catalogue Documentation Support Gérer nawresmougou...

Liste de ressources / Internet of Things Platform-s4 Actif Ajouter des étiquettes

Détails Actions...

Gérer

Plan

Connexions

Commençons avec IBM Watson IoT Platform

Connectez, contrôlez et gérez vos terminaux en toute sécurité. Construisez rapidement des applications IoT qui analysent les données du monde physique.

Lancer Documentation

Prêt à passer au prochain niveau ?

L'aventure IBM Watson IoT Platform

Lite

Le plan de service Lite fournit un environnement de développement léger pour vous permettre de

Non-Production

Le plan de service Non-Production est une offre complète pré-intégrée qui vous permet

Production

Le service Production est une offre SaaS entièrement gérée qui vous permet de gérer et

Taper ici pour rechercher

19-29 16/02/2021

- Configure The IoT Platform :

IBM Watson IoT Platform

nawresmougou274@gmail.com ID: yuhx22

Parcourir Action Types de terminal Interfaces

Ajouter un terminal

Rechercher par ID de ter...

Simulateur de terminal

ID de terminal	Statut	Type de terminal	ID de classe	Date de l'ajout
123456	Déconnecté	intelligent	Terminal	16 févr. 2021 17:49
intelligent_2	Déconnecté	intelligent	Terminal	16 févr. 2021 18:24

Identité Informations sur le terminal Événements récents Etat Journaux

ID de terminal intelligent_2

Type de terminal intelligent

Date de l'ajout 16 févr. 2021 18:24

Ajouté par nawresmougou274@gmail.com

Statut de connexion Déconnecté

Éléments par page 50 | 1-2 sur 2 éléments

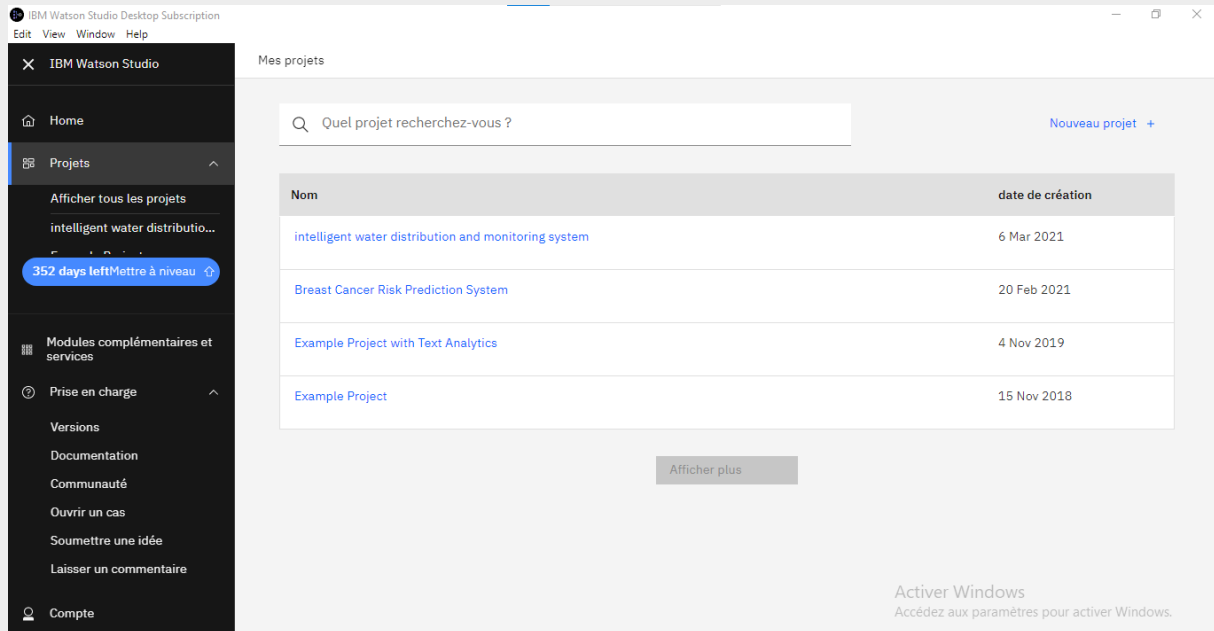
1 Simulation en cours d'exécution

Taper ici pour rechercher

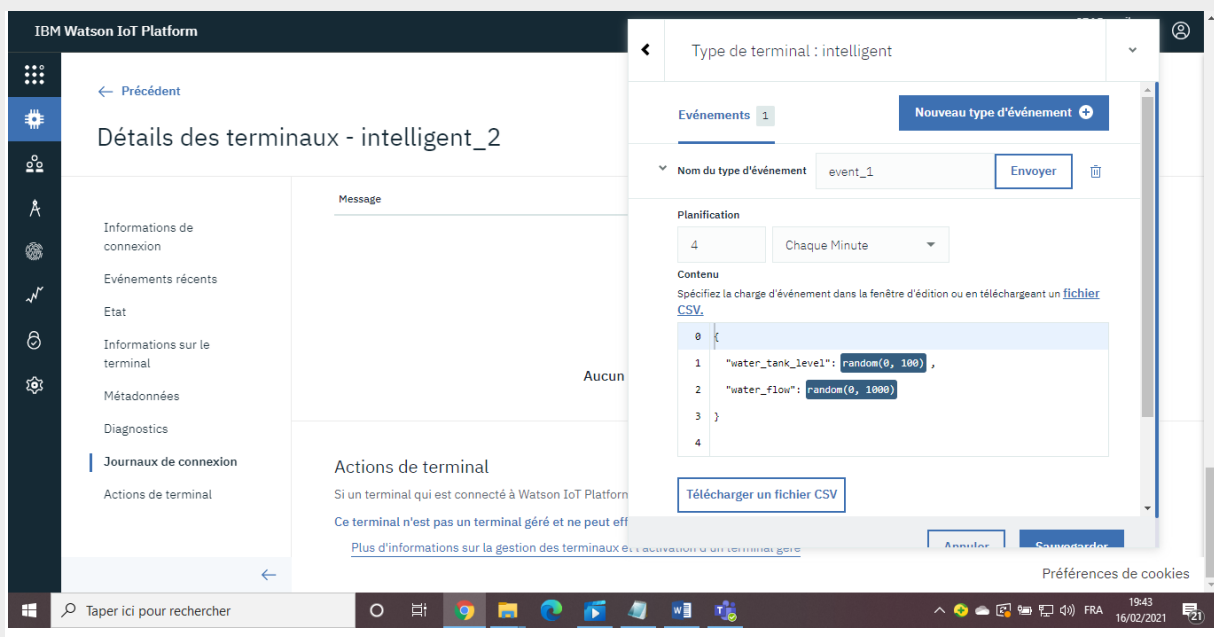
19-31 16/02/2021



- Download Watson Studio Desktop :



- Configure And Connect The Online Simulator Sensor:





IBM Watson IoT Platform

Parcourir Action Types de terminal Interfaces

Ajouter un terminal +

ID de terminal	Statut	Type de terminal	ID de classe	Date de l'ajout
123456	Déconnecté	intelligent	Terminal	16 févr. 2021 17:49
intelligent_2	Connecté	intelligent	Terminal	16 févr. 2021 18:24

Identité Informations sur le terminal Événements récents Etat Journaux

ID de terminal intelligent_2
Type de terminal intelligent
Date de l'ajout 16 févr. 2021 18:24
Ajouté par nawresmougou274@gmail.com
Statut de connexion Connecté
Durée de la connexion : 17 févr. 2021 21:27
Adresse du client : 196.184.101.13 SecureToken

Éléments par page 50 | 1-2 sur 2 éléments

1 Simulation en cours d'exécution

- Create A Node-RED Flow To Get Data From The IBM Device

:

Node-RED

Successfully deployed

Flow 1

inject debug complete catch status link in link out comment

function

function switch change

IBM IoT

Node "eab6811e.8cf5c"

Type ibmiot in

Export the selected nodes, or the current tab with `ctrl-e`



Node-RED interface showing a flow with an IBM IoT node connected to a msg.payload node. The debug console displays the following log entries:

```
17/02/2021, 22:29:43 node: fa56be38.4fc9b
iot-2/type/intelligentId/123456/evt/event_1/fmt/json :
msg.payload : Object
  { water_tank_level: 17, water_flow:
    950 }

17/02/2021, 22:29:45 node: fa56be38.4fc9b
iot-2/type/intelligentId/123456/evt/event_1/fmt/json :
msg.payload : Object
  { water_tank_level: 45, water_flow:
    462 }

17/02/2021, 22:29:48 node: fa56be38.4fc9b
iot-2/type/intelligentId/123456/evt/event_1/fmt/json :
msg.payload : Object
  { water_tank_level: 100,
    water_flow: 463 }

17/02/2021, 22:29:51 node: fa56be38.4fc9b
iot-2/type/intelligentId/123456/evt/event_1/fmt/json :
msg.payload : Object
  { water_tank_level: 87, water_flow:
    938 }
```

IBM Watson IoT Platform interface showing details for terminal 123456. The page displays recent events and the current state of the terminal.

Détails des terminaux - 123456

Informations de connexion

Evénements récents

Les événements récemment répertoriés illustrent le flux de données en temps réel entrant et sortant pour ce terminal.

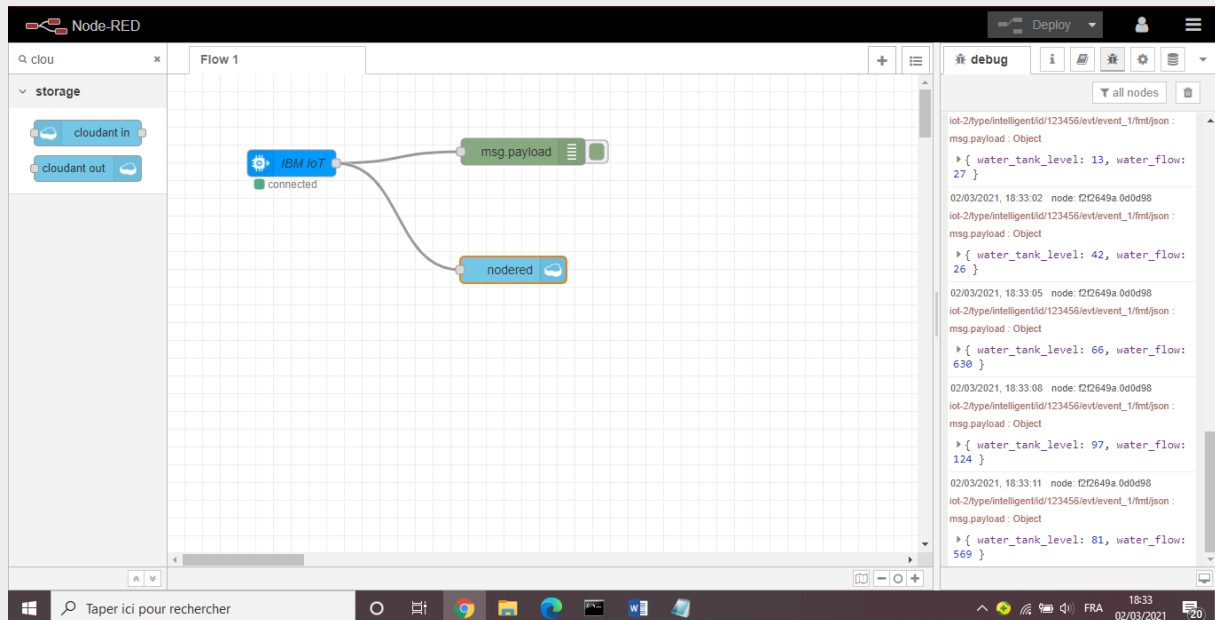
Evénement	Valeur	Format	Dernière réception
event_1	{"water_tank_level":40,"water_flow":536}	json	il y a quelques secondes
event_1	{"water_tank_level":16,"water_flow":145}	json	il y a quelques secondes
event_1	{"water_tank_level":27,"water_flow":669}	json	il y a quelques secondes
event_1	{"water_tank_level":57,"water_flow":490}	json	il y a quelques secondes
event_1	{"water_tank_level":11,"water_flow":559}	json	il y a quelques secondes

Etat

1 Simulation en cours d'exécution



- Configure the node-RED flow to get the data received from IBM IoT device in cloudant DB:



- viewing credential information :

The screenshot shows the IBM Cloud interface for managing service credentials. The page title is 'Données d'identification pour le service'. The main content area displays a table with the following information:

Nom de clé	Date de création
95bd0a1f-4b08-4352-a07f-b5f583b38a8f	2020-05-04 3:21 AM

Below the table, the details of the selected credential are shown in a JSON format:

```
{  "apikey": "dcRg7_Nio6uN2z8NzPKx0NHvKa1Q17grQZ7Gzyf1IaPk",  "host": "2952835a-4cca-4a34-9a52-884963ca8f43-blumix.cloudantnosqldb.appdomain.cloud",  "iam_apikey_description": "Auto-generated for key 206bb25f-b427-45ca-8874-e2a097be76da",  "iam_apikey_name": "95bd0a1f-4b08-4352-a07f-b5f583b38a8f",  "iam_role_crn": "crn:v1:bluemix:public:iam:::serviceRole:Writer",  "iam_serviceid_crn": "crn:v1:bluemix:public:iam-identity::a/b6083bae3a114ee48ccd01a5a429ebb8::serviceid:S",  "password": "c2e45b776a8558f815f2bef05150160d9dbac125b7c047fc5087f24995576440",  "port": 443,  "url": "https://2952835a-4cca-4a34-9a52-884963ca8f43-blumix:c2e45b776a8558f815f2bef05150160d9dbac125b7c047fc5087f24995576440@2952835a-4cca-4a34-9a52-884963ca8f43-blumix.cloudantnosqldb.appdomain.cloud",  "username": "2952835a-4cca-4a34-9a52-884963ca8f43-blumix"}
```



←

→

Database name

▼

Create Database

{ } JSON

Your Databases

Name	Size	# of Docs	Partitioned	Actions
nodered	168.1 KB	4	No	<div></div>

Showing 1–1 of 1 databases. Databases per page 20 < 1 >

Log Out

Taper ici pour rechercher

FRA 20:09 20/02/2021

nodered > nodered/flow

{ } JSON

Save Changes

Cancel

Upload Attachment

Clone Document

Delete

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

```
"_id": "nodered/flow",
"_rev": "12-6b566dfbc54647472b665868ad3d1bdc",
"flow": [
  {
    "id": "b71c483d.2859f8",
    "type": "tab",
    "label": "Flow 1",
    "disabled": false,
    "info": ""
  },
  {
    "id": "ac9359af.2f0908",
    "type": "ibmiot",
    "name": "intelligent2",
    "keepalive": "60",
    "serverName": "yuhx22.messaging.internetofthings.ibmcloud.com",
    "cleansession": true,
    "appId": "",
    "shared": false
  },
  {
    "id": "2729613f.03bf7e",
    "type": "cloudant",
```

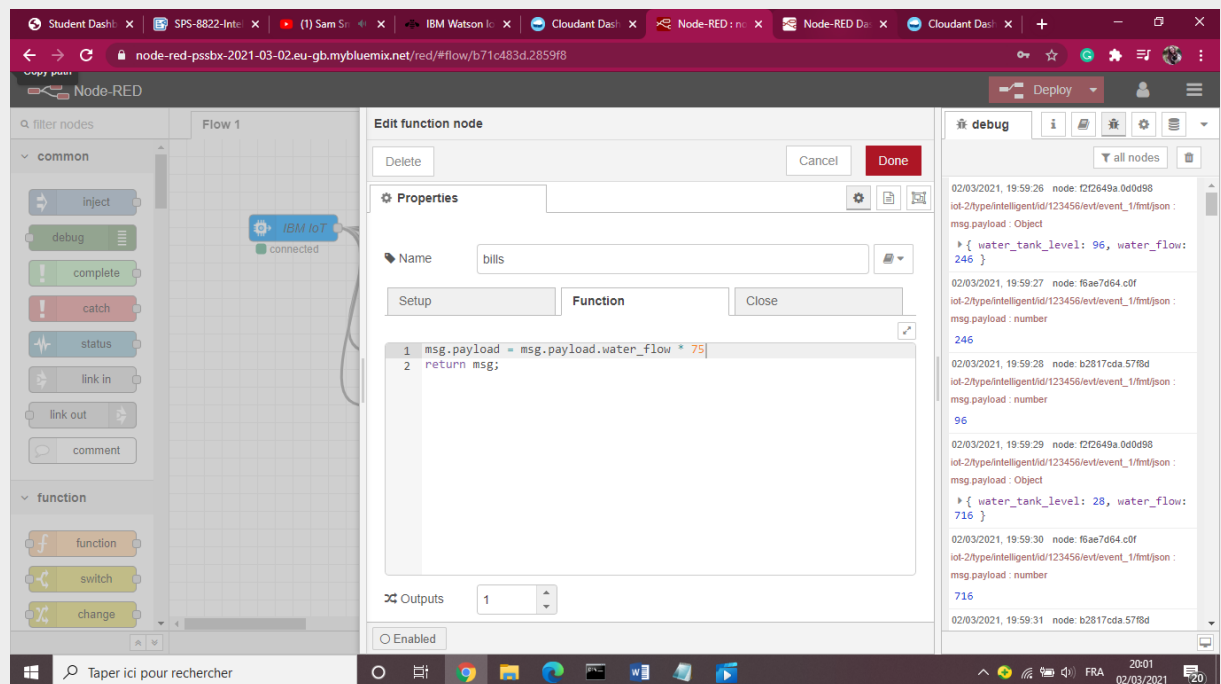
Log Out

Taper ici pour rechercher

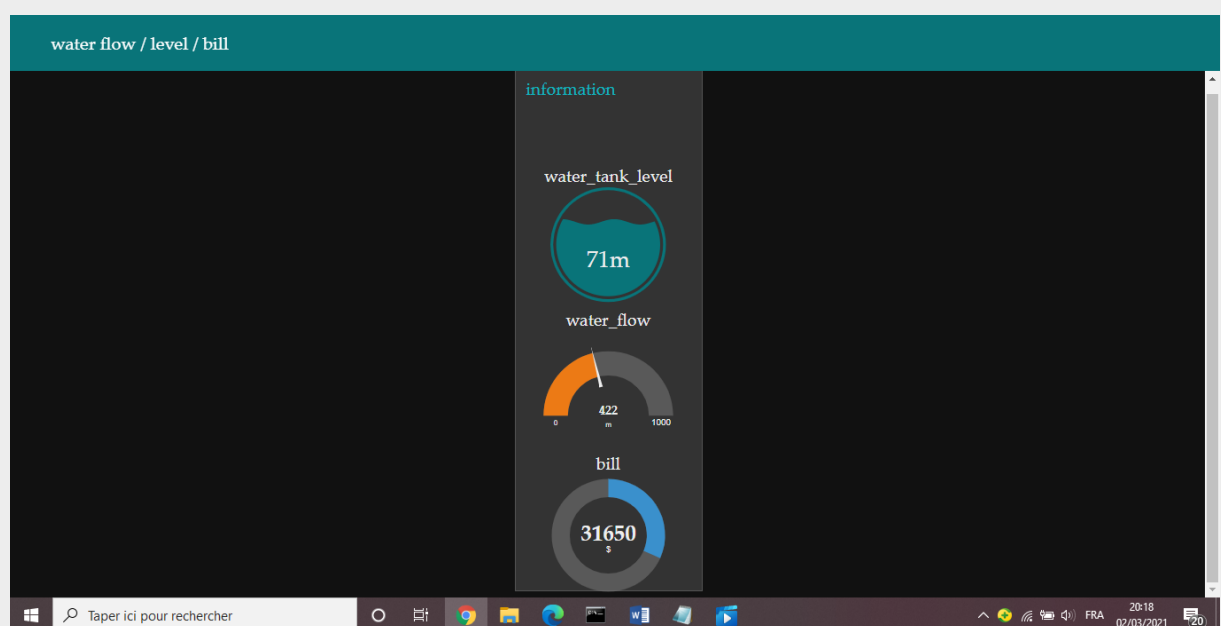
FRA 18:50 02/03/2021

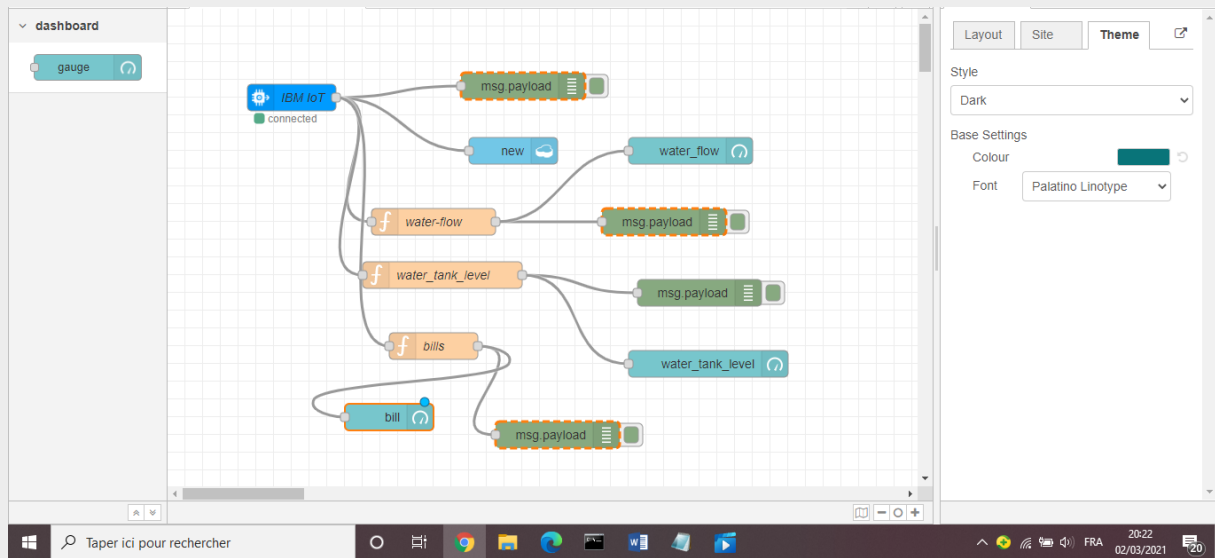


- Configure The Node-Red To Retrieve The Monthly Flowrate From Cloudant Db And Calculate Bills:

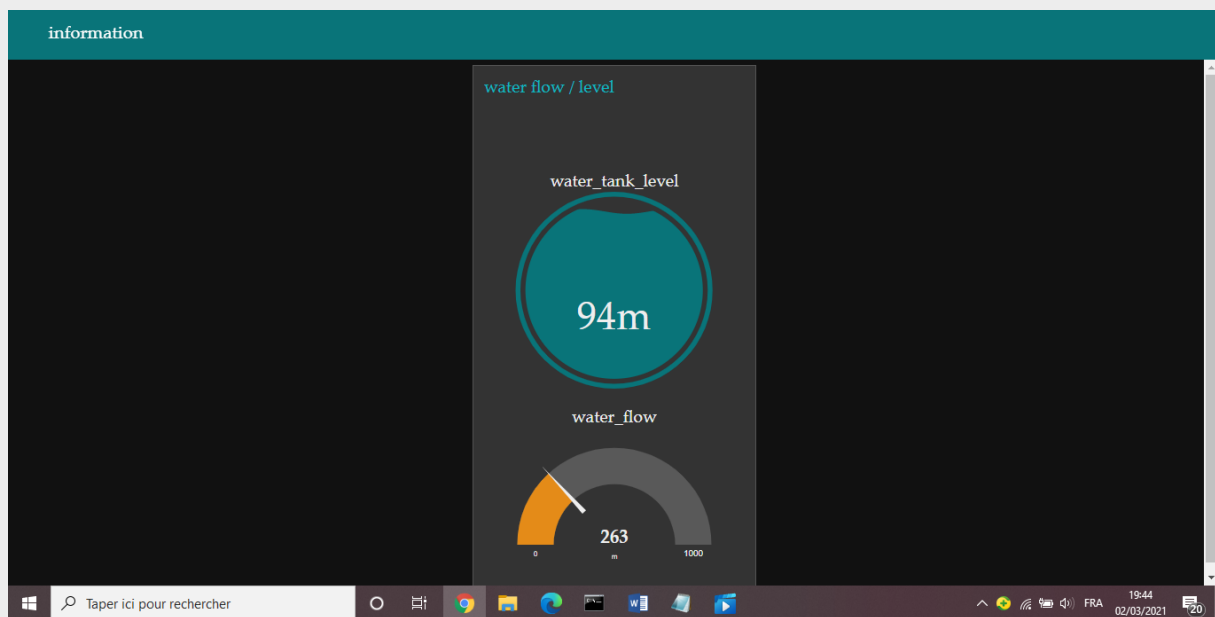


Assuming that the price of 1gpm is 75\$ (which is a random number)
Which give us this result:





- Dashbord results :





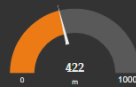
water flow / level / bill

information

water_tank_level



water_flow



bill

