

PROJECT DEVELOPMENT PHASE

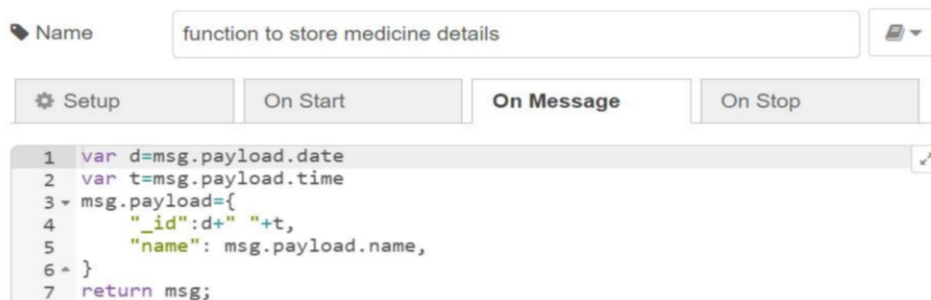
DELIVERY OF SPRINT 2

Date	11 NOV 2022
Team ID	PNT2022TMID07000
Project name	Personal Assistance For Seniors Who Are Self-Reliant
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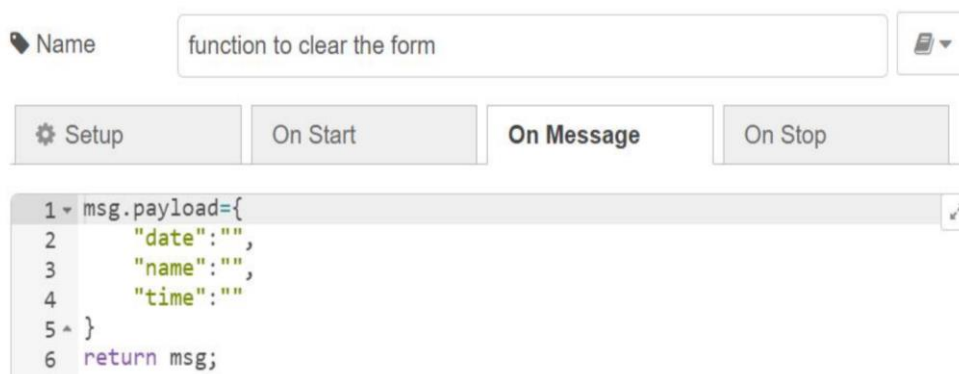
SPRINT II: Development of Web User Interface in NodeRED service of IBM:

i)Creating a form in Node-Red to enter medicine details:

- Web UI can be created by using form UI from Node-Red Dashboard
- The Dashboard can be installed from node-red palette
- The medicine name,intake time and day is entered in the form
- The medicine details are wired and stored to the IBM cloudant db database with the help of a function



The below function is used to reset the form after a delay to add more medicine



The screenshot displays the Node-RED web interface in a browser. The top bar shows the URL: `node-red-wrmkf-2022-10-22.eu-gb.mybluemix.net/red/#flow/edb2e43b31963c69`. The interface is divided into several sections:

- Left Panel (Palette):** Contains two tabs: "common" and "function". The "common" tab is active, showing nodes like inject, debug, complete, catch, status, link in, link call, link out, and comment. The "function" tab is also visible, showing nodes like function, switch, and change.
- Top Bar:** Displays the current flow name "Flow 1" and a "Deploy" button.
- Main Canvas:** Shows a flow diagram with the following nodes and connections:
 - inject** node connected to **timestamp**.
 - timestamp** node connected to **compare time**.
 - compare time** node connected to **medicine**.
 - medicine** node connected to **switch**.
 - switch** node connected to **send medicine name to IOT**.
 - send medicine name to IOT** node connected to **convert to string**.
 - convert to string** node connected to **msg.payload**.
 - store medicine details** node connected to **clear the form**.
 - clear the form** node connected to **form**.
 - form** node connected to **delay 10s**.
 - delay 10s** node connected to **msg.payload**.
- Right Panel (Debug Console):** Shows the output of the flow. The first message is "couch returned 404". The second message is a JSON object: `{ name: 'amaxillin', time: '1970-01-01T18:11:00.000Z', date: '2022-11-18T18:30:00.000Z' }`. The third message is "amaxillin".

Node-RED Dashboard

node-red-wrmkf-2022-10-22.eu-gb.mybluemix.net/ui/#/I/0?socketid=a0DgU_EgErHD3mb9AAAR

Gmail YouTube Maps WhatsApp (5) Dharshini Baskar... Course: ETHNUS - F... Classes Dharshini B 191810... Crafts (1) - dhar.19... Dharshini B localhost / 127.0.0.1... Programming in Java...

☰ Add Medicine

Medicine Reminder

Medicine Name
Chloroform

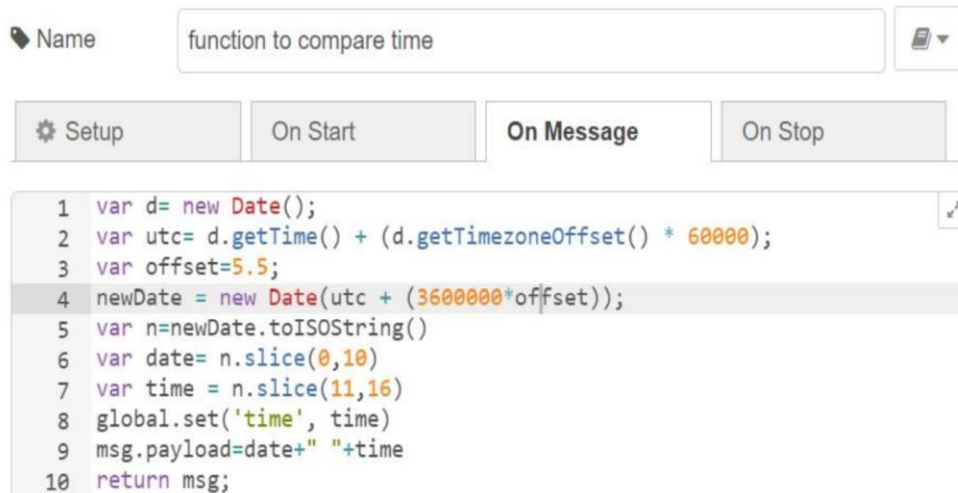
Time
23:02

Date
19-11-2022

SUBMIT CANCEL

ii) Sending the medicine name at the appropriate time:

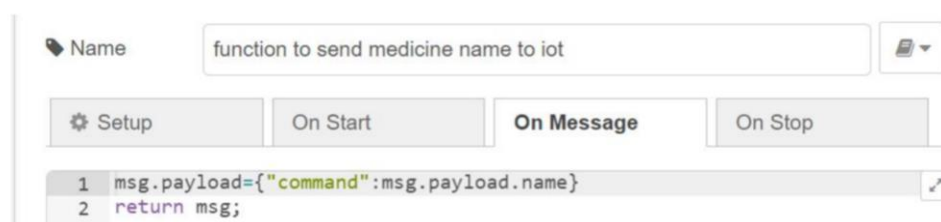
- A function is created to compare the present time with the scheduled time.
- The function to get the present time is shown below



The screenshot shows a Node-RED function block named "function to compare time". The code inside the block is as follows:

```
1 var d= new Date();
2 var utc= d.getTime() + (d.getTimezoneOffset() * 60000);
3 var offset=5.5;
4 newDate = new Date(utc + (3600000*offset));
5 var n=newDate.toISOString()
6 var date= n.slice(0,10)
7 var time = n.slice(11,16)
8 global.set('time', time)
9 msg.payload=date+" "+time
10 return msg;
```

- After obtaining the present time, cloudant node is connected to the function in order search the scheduled time by _id
- The cloudant node is connected to the IBM cloudant database.
- If the present time and scheduled time in the database matches, then the name of the medicine will be sent to the IoT device using switch node and a function following that node



The screenshot shows a Node-RED function block named "function to send medicine name to iot". The code inside the block is as follows:

```
1 msg.payload={"command":msg.payload.name}
2 return msg;
```

Deploying Web UI:

The debug window in Node-Red depicts the medicine detail

11/19/2022, 11:59:03 PM	node: c8e3a2d93c7a7149
msg.payload : string[11]	
"Paracetamol"	
11/19/2022, 11:59:13 PM	node: c8e3a2d93c7a7149
msg.payload : string[11]	
"Paracetamol"	
11/19/2022, 11:59:23 PM	node: c8e3a2d93c7a7149
msg.payload : string[11]	
"Paracetamol"	
11/19/2022, 11:59:33 PM	node: c8e3a2d93c7a7149
msg.payload : string[11]	
"Paracetamol"	
11/19/2022, 11:59:43 PM	node: c8e3a2d93c7a7149
msg.payload : string[11]	
"Paracetamol"	
11/19/2022, 11:59:53 PM	node: c8e3a2d93c7a7149
msg.payload : string[11]	
"Paracetamol"	

- The following image shows the details of the medicine which is stored in the cloudant db under the medicine database.

_id	name
2022-11-19 20:09	Paracetamol
2022-11-19 20:41	dolo650
2022-11-19 20:47	Amacilin
2022-11-19 20:51	Dolo650
2022-11-19 20:56	paracetamol
2022-11-19 21:03	dolo
2022-11-19 21:11	dolo
2022-11-19 21:18	Rexin
2022-11-19 23:02	Chloroform
2022-11-19 23:41	amaxilin
2022-11-19 23:55	Dolo650
2022-11-19 23:59	Paracetamol

- The following image shows the details of the medicine in the medicine database in JSON form

id	JSON
"2022-11-19 20:09"	<pre>{ "id": "2022-11-19 20:09", "key": "2022-11-19 20:09", "value": { "rev": "1-f5963f4475663524c2083b5978588275" }, "doc": { "_id": "2022-11-19 20:09", "_rev": "1-f5963f4475663524c2083b5978588275", "name": "Paracetamol" } }</pre>
"2022-11-19 20:41"	<pre>{ "id": "2022-11-19 20:41", "key": "2022-11-19 20:41", "value": { "rev": "1-d0372639a98a5d5af1a55c96014607ef3" }, "doc": { "_id": "2022-11-19 20:41", "_rev": "1-d0372639a98a5d5af1a55c96014607ef3", "name": "dolo650" } }</pre>

- The medicine reminder operation is depicted below:
 - ✓ The medicine name Cetirizine and its intake time 09:00 and date 19.11.2022 is stored in the database.

11/20/2022, 12:38:58 AM node: 775a8b8f258cbbef

msg.payload : Object

▼ *object*

name: "Cetirizine"

time: "1969-12-31T19:09:00.000Z"

date: "2022-11-19T18:30:00.000Z"