

Create a Node-red flow fetching 4 machine details and display in dashboard using CoAP.

JavaScript code

Random_Number_Generator

```
msg.payload= Math.floor(Math.random() * 100)
return msg;
```

Performance Check Function

```
var per = msg.payload;

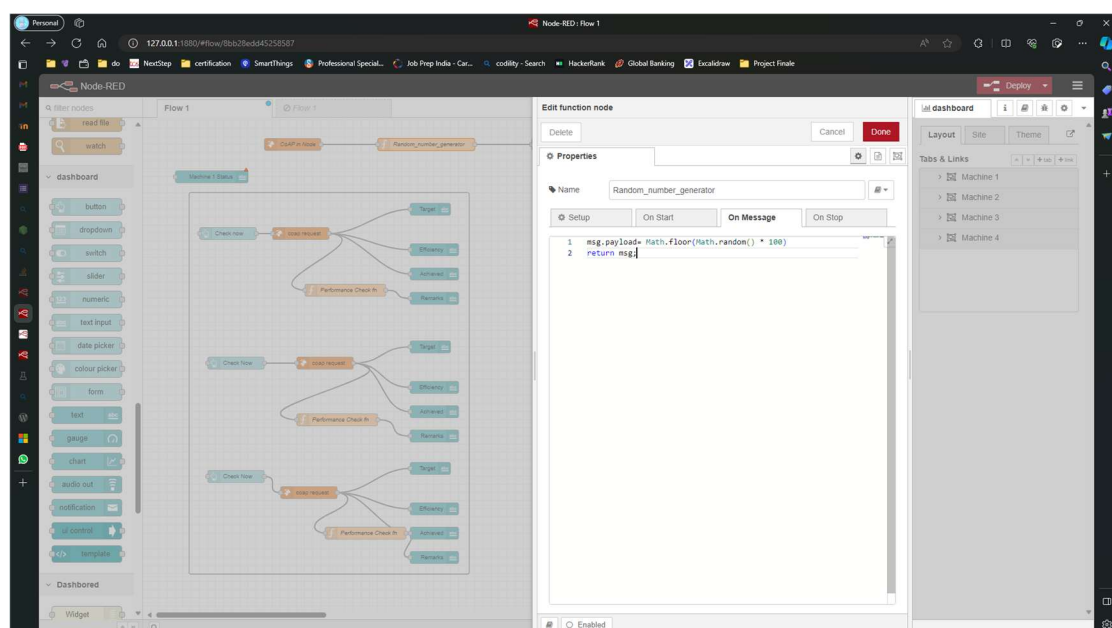
if (per>80){
    msg.payload= "High Performance"
}
else {
    msg.payload="Low Performance"
}
return msg;
```

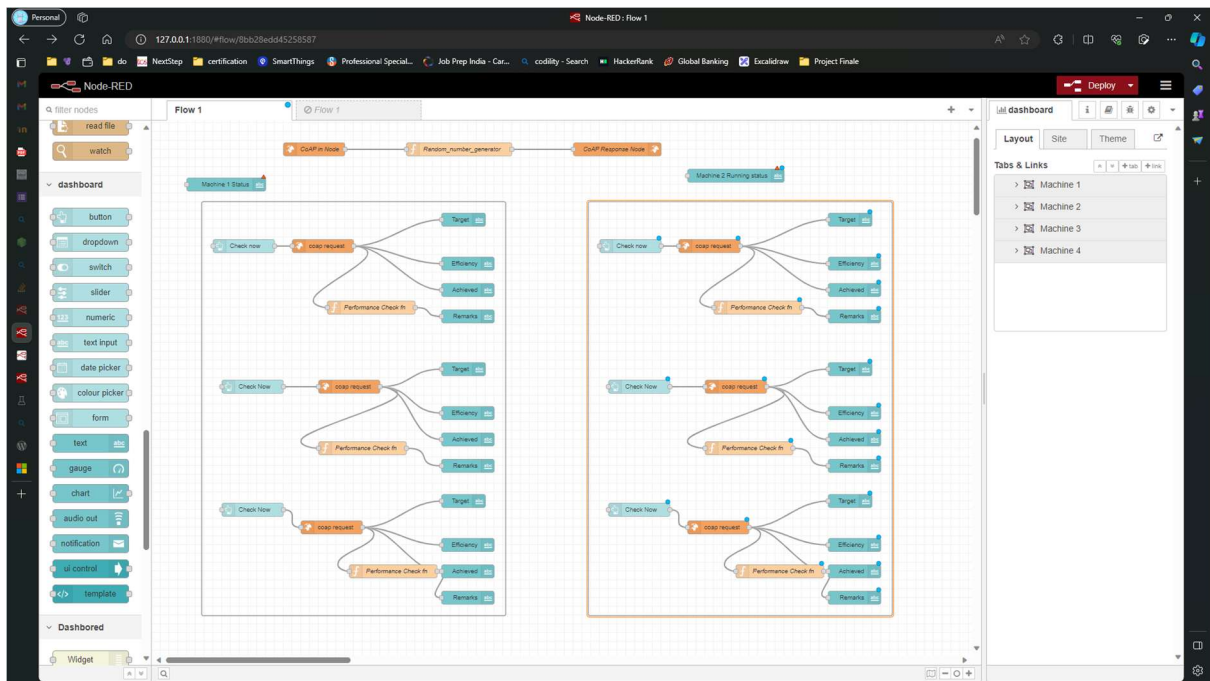
When a CoAP client requests a random number, the CoAP server executes the random number generator function and sends the resulting value (msg.payload) back to the client.

Additionally, I have created four tabs, each corresponding to a separate machine.

These tabs include fields for Target, Efficiency, achieved (%), and Remark, which allows for tracking and evaluating the performance of each machine based on specified criteria

Screenshots:





User Interface:

Node-RED Dashboard

	Shift 1	Shift 2	Shift 3
Machine 1	Target 100	Target 100	Target 100
Machine 2	Achieved 89	Achieved 51	Achieved 85
Machine 3	Efficiency 89.00 %	Efficiency 51.00 %	Efficiency 85.00 %
Machine 4	Remarks High Performance	Remarks Low Performance	Remarks High Performance
	CHECK NOW	CHECK NOW	CHECK NOW

Personal

Node-RED Dashboard

127.0.0.1:1880/ui/#/1?socketid=hwAEn_DROBIZrGzhAAAF

NextStepcertificationSmartThingsProfessional Special...Job Prep India - Car...codility - SearchHackerRankGlobal BankingEscalidrawProject Finale

Node-RED Dashboard

Machine 1

Machine 2

Machine 3

Machine 4

Shift 1		Shift 2		Shift 3	
Target	100	Target	100	Target	100
Achieved	26	Achieved	59	Achieved	39
Efficiency	26.00 %	Efficiency	59.00 %	Efficiency	39.00 %
Remarks	Low Performance	Remarks	Low Performance	Remarks	Low Performance
CHECK NOW		CHECK NOW		CHECK NOW	

Node-RED Dashboard

Machine 1
Machine 2
Machine 3
Machine 4

Shift 1

Target	100
Achieved	2
Efficiency	2.00 %
Remarks	Low Performance
CHECK NOW	

Shift 2

Target	100
Achieved	39
Efficiency	39.00 %
Remarks	Low Performance
CHECK NOW	

Shift 3

Target	100
Achieved	86
Efficiency	86.00 %
Remarks	High Performance
CHECK NOW	

Node-RED Dashboard

Machine 1
Machine 2
Machine 3
Machine 4

Shift 1

Target	100
Achieved	96
Efficiency	96.00 %
Remarks	High Performance
CHECK NOW	

Shift 2

Target	100
Achieved	77
Efficiency	77.00 %
Remarks	Low Performance
CHECK NOW	

Shift 3

Target	100
Achieved	79
Efficiency	79.00 %
Remarks	Low Performance
CHECK NOW	

Snipping Tool

Screenshot copied to clipboard and saved.
Select here to mark up and share.

Node-RED Dashboard

Machine 1
Machine 2
Machine 3
Machine 4

Shift 1		Shift 2		Shift 3	
Target	100	Target	100	Target	100
Achieved	2	Achieved	39	Achieved	86
Efficiency	2.00 %	Efficiency	39.00 %	Efficiency	86.00 %
Remarks	Low Performance	Remarks	Low Performance	Remarks	High Performance
CHECK NOW		CHECK NOW		CHECK NOW	

Node-RED Dashboard

Machine 1
Machine 2
Machine 3
Machine 4

Shift 1		Shift 2		Shift 3	
Target	100	Target	100	Target	100
Achieved	96	Achieved	77	Achieved	79
Efficiency	96.00 %	Efficiency	77.00 %	Efficiency	79.00 %
Remarks	High Performance	Remarks	Low Performance	Remarks	Low Performance
CHECK NOW		CHECK NOW		CHECK NOW	