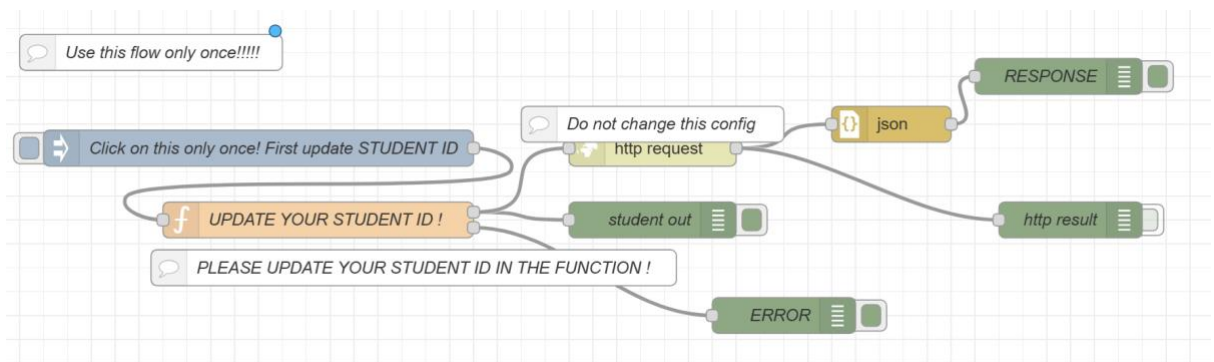


23/24 B - Internet of Things MMI126818-23 CW2 Additional Task

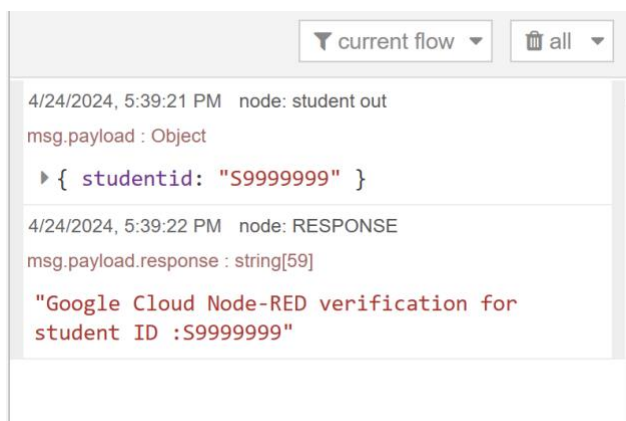
1. Procedure

No marks are directly allocated to this task. However, it **must** be undertaken so that we can verify your Node-RED instance on Google Cloud. If you do not undertake this task, then your CW2 marks could be lowered, since we will have no evidence of your Node-RED Google Cloud deployment.

- On **your own Google Cloud Node-RED instance**, please import the code provided in Section 2.
- **You should use the Chrome browser and you should be logged-in.**
- **Do not run this from your PC Node-RED since this will fail to be verified.**



- Make the following change to the code:
 - Update the function named: “UPDATE YOUR STUDENT ID !” by changing just the line of code that currently has the content:
studentid = "S9999999"
Change the string "S9999999" to your own student ID.
Check that you have entered the correct ID and that you still have quotes around this. Make sure that there are no spaces in the string.
 - Now click ‘Done’ and then use the Node-RED ‘Deploy’ button to deploy the updated code.
- Click on the inject node **only once**.
- You should receive the following type of response **that contains your student ID**.



- **Please take a screenshot of the whole of the browser window (with debug panel output), including the URL bar and your Google Login Icon. Do not set to use an anonymous login.**
This screenshot will be used as part of a document to be returned a part of the CW2 submission.
- Please go to the GCU Learn IoT module entry, 'Assignments and Tests' area, and the **VERIFICATION-CW2 entry**. You will find a template document to complete with:
 - Your personal details.
 - The IP address of your Google Cloud Node-RED instance.
 - The screenshot that you took.
- You will find a submission link to upload the document.
 - **The filename must have the following structure:** [SURNAME],[FIRSTNAME]_[STUDENT-ID]_CW2_Verification.docx. SURNAME or FIRSTNAME can be substituted by '-' character if required.
- You must undertake this task by Friday 26th April at 19.00hrs.
- Note: If you receive the following return value for the verification code then you are not verified. The reason for this might be that you are running on a local PC Node-RED instance, and this is incorrect. You must be running on Google Cloud Node-RED.

```

4/24/2024, 5:05:23 PM node: student out
msg.payload : Object
  { studentid: "S9999999" }

4/24/2024, 5:05:31 PM node: RESPONSE
msg.payload.response : string[91]
  "This code is not executing on a Cloud Node-RED
  instance. Your student ID is not registered."
  
```

2. Node-RED Google Cloud Code

```

[
  {
    "id": "1523c1311aaf16fc",
    "type": "tab",
    "label": "Student Cloud Verify",
    "disabled": false,
    "info": "",
    "env": []
  },
  {
    "id": "694276156abc09bc",
    "type": "http request",
    "z": "1523c1311aaf16fc",
    "name": "",
    "method": "GET",
    "ret": "txt",
    "paytoqs": "query",
    "url": "http://34.28.30.37:1880/cw2test",
    "tls": "",
    "persist": false,
    "proxy": "",
    "authType": "",
    "sender": false,
    "x": 550,
    "y": 140,
    "wires": [
      [
        "aa4cc079a0c92ffd",
        "a778ac629a80e33f"
      ]
    ]
  },
  {
    "id": "4a3db2a9delcef9d",
    "type": "inject",
    "z": "1523c1311aaf16fc",
    "name": "Click on this only once! First update STUDENT ID",
    "props": [
      {
        "p": "payload"
      },
      {
        "p": "topic"
      }
    ]
  }
]
  
```

```

        "vt": "str"
    }
},
"repeat": "",
"crontab": "",
"once": false,
"onceDelay": 0.1,
"topic": "",
"payload": "",
"payloadType": "date",
"x": 220,
"y": 140,
"wires": [
    [
        "#f6711040d3901190"
    ]
]
},
{
    "id": "62e598c13d98c290",
    "type": "debug",
    "z": "1523c1311aaf16fc",
    "name": "RESPONSE",
    "active": true,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "payload.response",
    "targetType": "msg",
    "statusVal": "",
    "statusType": "auto",
    "x": 890,
    "y": 80,
    "wires": []
},
{
    "id": "f6711040d3901190",
    "type": "function",
    "z": "1523c1311aaf16fc",
    "name": "UPDATE YOUR STUDENT ID !",
    "func": "/UPDATE TO YOUR STUDENT ID\nstudentid = \"S99999999\"\n\n\n\n\n// DO NOT CHANGE ANY OF THE CODE BELOW !!!\nstudentid =\nstudentid.toUpperCase();\nif (studentid.length != 8) {\n return [null, {\n\"payload\": \"Student ID must be 8 characters long. Please check.\\\"});\n\n\nif\n(!studentid.startsWith(\"S\")) {\n return [null, {\n\"payload\": \"Student ID must start with character 'S'. Please check.\\\"});\n\n\n\nreturn\n[{\n\"payload\": \"\\\"studentid\\\": studentid}], null] ;",
    "outputs": 2,
    "noerr": 0,
    "initialize": "",
    "finalize": "",
    "libs": [],
    "x": 270,
    "y": 200,
    "wires": [
        [
            "c1fb4e1dafd90578",
            "694276156abc09bc"
        ],
        [
            "1a86c828cc287671"
        ]
    ]
},
{
    "id": "73969916271f5cbc",
    "type": "comment",
    "z": "1523c1311aaf16fc",
    "name": "Do not change this config",
    "info": "",
    "x": 550,
    "y": 120,
    "wires": []
},
{
    "id": "ca1a854de1864331",
    "type": "comment",
    "z": "1523c1311aaf16fc",
    "name": "PLEASE UPDATE YOUR STUDENT ID IN THE FUNCTION !",
    "info": "",
    "x": 350,
    "y": 240,
    "wires": []
},
{
    "id": "1a86c828cc287671",
    "type": "debug",
    "z": "1523c1311aaf16fc",
    "name": "ERROR",
    "active": true,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "payload",
    "targetType": "msg",
    "statusVal": "",
    "statusType": "auto",
    "x": 660,
    "y": 280,
    "wires": []
},
{
    "id": "c1fb4e1dafd90578",
    "type": "debug",
    "z": "1523c1311aaf16fc",
    "name": "student out",
    "active": true,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "payload",
    "targetType": "msg",
    "statusVal": "",
    "statusType": "auto",
    "x": 550,
    "y": 200,
    "wires": []
},
{
    "id": "02318e5e3b0a763c",
    "type": "comment",
    "z": "1523c1311aaf16fc",
    "name": "Use this flow only once!!!!",
    "info": "",
    "x": 130,
    "y": 60,

```

```
    "wires": []
  },
  {
    "id": "a778ac629a80e33f",
    "type": "debug",
    "z": "1523c1311aaf16fc",
    "name": "http result",
    "active": false,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "true",
    "targetType": "full",
    "statusVal": "",
    "statusType": "auto",
    "x": 900,
    "y": 200,
    "wires": []
  },
  {
    "id": "aa4cc079a0c92ffd",
    "type": "json",
    "z": "1523c1311aaf16fc",
    "name": "",
    "property": "payload",
    "action": "",
    "pretty": false,
    "x": 750,
    "y": 120,
    "wires": [
      [
        "62e598c13d98c290"
      ]
    ]
  }
]
```