

Project Code

Feel free to use the project solution for your reference.

Keep this code in your project, we will work on it again after learning Loops. Until then enjoy rest of the lessons

```
[
  {
    "id": "30b74db4eade679f",
    "type": "tab",
    "label": "Array project",
    "disabled": false,
    "info": "# ",
    "env": []
  },
  {
    "id": "ee8fdaf95a780a21",
    "type": "inject",
    "z": "30b74db4eade679f",
    "name": "",
    "props": [
      {
        "p": "payload"
      },
      {
        "p": "topic",
        "vt": "str"
      }
    ]
  }
]
```

```
    }
  ],
  "repeat": "",
  "crontab": "",
  "once": false,
  "onceDelay": 0.1,
  "topic": "",
  "payload": "",
  "payloadType": "date",
  "x": 880,
  "y": 120,
  "wires": [
    [
      "bc9b550a8f1a4fe5"
    ]
  ]
},
{
  "id": "bc9b550a8f1a4fe5",
  "type": "function",
  "z": "30b74db4eade679f",
  "name": "function 54",
  "func": "var arr =
[1,2,0,3,1,2,0,0,2,1,2,0];\nflow.set('rack',arr);\nconsole.table(arr);\nmsg.payload =
arr;\nreturn msg;",
  "outputs": 1,
  "timeout": 0,
  "noerr": 0,
  "initialize": "",
```

```
"finalize": "",
"libs": [],
"x": 1090,
"y": 120,
"wires": [
  [
    "3793f87e8c66493c",
    "ac3ba4f826879682"
  ]
]
},
{
  "id": "3793f87e8c66493c",
  "type": "debug",
  "z": "30b74db4eade679f",
  "name": "debug 58",
  "active": true,
  "tosidebar": true,
  "console": false,
  "tostatus": false,
  "complete": "false",
  "statusVal": "",
  "statusType": "auto",
  "x": 1280,
  "y": 120,
  "wires": []
},
{
```

```
"id": "ac3ba4f826879682",
"type": "ui_template",
"z": "30b74db4eade679f",
"group": "3a02d7ed38ca3b18",
"name": "",
"order": 4,
"width": 0,
"height": 0,
"format": "<style>\n  table {\n    width: 100%;\n    border-collapse: collapse;\n    margin-top: 20px;\n  }\n\n  th,\n  td {\n    padding: 10px;\n    text-align: center;\n    border: 1px solid #ddd;\n  }\n\n  th {\n    background-color: #f2f2f2;\n  }\n</style>\n<table>\n  <tr>\n    <th>Column 2</th>\n    <th>Column 1</th>\n    <th>Column 0</th>\n  </tr>\n  <tr>\n    <td></td>\n    <td></td>\n    <td></td>\n  </tr>\n  <tr>\n    <td></td>\n    <td></td>\n    <td></td>\n  </tr>\n  <tr>\n    <td></td>\n    <td></td>\n    <td></td>\n  </tr>\n  <tr>\n    <td></td>\n    <td></td>\n    <td></td>\n  </tr>\n</table>",
"storeOutMessages": true,
"fwdInMessages": true,
"resendOnRefresh": true,
"templateScope": "local",
"className": "",
"x": 1280,
"y": 160,
"wires": [
  []
],
{
  "id": "ad7a0a2143bde6bb",
  "type": "comment",
```

```
"z": "30b74db4eade679f",
"name": "0 (Empty), 1(Green), 2(Blue), 3(Brown)",
"info": "",
"x": 950,
"y": 80,
"wires": []
},
{
  "id": "cea18700b837b162",
  "type": "inject",
  "z": "30b74db4eade679f",
  "name": "",
  "props": [
    {
      "p": "payload"
    },
    {
      "p": "topic",
      "v": "3",
      "vt": "num"
    }
  ],
  "repeat": "",
  "crontab": "",
  "once": false,
  "onceDelay": 0.1,
  "topic": "",
  "payload": "2",
```

```
"payloadType": "num",
"x": 870,
"y": 200,
"wires": [
  [
    "cc6122ca9e5ed80d"
  ]
]
},
{
  "id": "21f1e6a5574fa01c",
  "type": "inject",
  "z": "30b74db4eade679f",
  "name": "",
  "props": [
    {
      "p": "payload"
    },
    {
      "p": "topic",
      "v": "3",
      "vt": "num"
    }
  ],
  "repeat": "",
  "crontab": "",
  "once": false,
  "onceDelay": 0.1,
```

```
"topic": "",
"payload": "0",
"payloadType": "num",
"x": 870,
"y": 280,
"wires": [
  [
    "cc6122ca9e5ed80d"
  ]
],
},
{
  "id": "ace98f7e369fd823",
  "type": "comment",
  "z": "30b74db4eade679f",
  "name": "Store Blue",
  "info": "",
  "x": 860,
  "y": 160,
  "wires": []
},
{
  "id": "cd173ec4eb5a782f",
  "type": "comment",
  "z": "30b74db4eade679f",
  "name": "Empty",
  "info": "",
  "x": 850,
```

```
"y": 240,
"wires": []
},
{
  "id": "cc6122ca9e5ed80d",
  "type": "function",
  "z": "30b74db4eade679f",
  "name": "function 55",
  "func": "var racktemp = flow.get('rack')||[];\nracktemp[msg.topic] =\nmsg.payload;\nflow.set('rack',racktemp);\nmsg.payload = racktemp;\nreturn msg;",
  "outputs": 1,
  "timeout": 0,
  "noerr": 0,
  "initialize": "",
  "finalize": "",
  "libs": [],
  "x": 1090,
  "y": 200,
  "wires": [
    [
      "ac3ba4f826879682"
    ]
  ]
},
{
  "id": "95ce3bb872f7080d",
  "type": "ui_dropdown",
  "z": "30b74db4eade679f",
```



```
"name": "",
"label": "",
"tooltip": "",
"place": "Select option",
"group": "3a02d7ed38ca3b18",
"order": 2,
"width": "3",
"height": "1",
"passthru": true,
"multiple": false,
"options": [
  {
    "label": "Empty",
    "value": 0,
    "type": "num"
  },
  {
    "label": "Green",
    "value": 1,
    "type": "num"
  },
  {
    "label": "Blue",
    "value": 2,
    "type": "num"
  },
  {
    "label": "Brown",
```

```
        "value": 3,
        "type": "num"
    }
],
"payload": "",
"topic": "topic",
"topicType": "msg",
"className": "",
"x": 860,
"y": 340,
"wires": [
    [
        "9ce8c51bf5488c5a"
    ]
]
},
{
    "id": "955ec9afb5074f7c",
    "type": "ui_numeric",
    "z": "30b74db4eade679f",
    "name": "",
    "label": "Position",
    "tooltip": "",
    "group": "3a02d7ed38ca3b18",
    "order": 1,
    "width": "3",
    "height": "1",
    "wrap": false,
```

```
"passthru": true,  
"topic": "topic",  
"topicType": "msg",  
"format": "",  
"min": 0,  
"max": "11",  
"step": 1,  
"className": "",  
"x": 860,  
"y": 400,  
"wires": [  
  [  
    "65577d9aa5736c44"  
  ]  
]  
},  
{  
  "id": "9ce8c51bf5488c5a",  
  "type": "function",  
  "z": "30b74db4eade679f",  
  "name": "function 56",  
  "func": "flow.set('productnr',msg.payload);\nreturn msg;",  
  "outputs": 1,  
  "timeout": 0,  
  "noerr": 0,  
  "initialize": "",  
  "finalize": "",  
  "libs": [],
```

```
"x": 1030,
"y": 340,
"wires": [
  []
]
},
{
  "id": "65577d9aa5736c44",
  "type": "function",
  "z": "30b74db4eade679f",
  "name": "function 57",
  "func": "flow.set('position',msg.payload);\nreturn msg;",
  "outputs": 1,
  "timeout": 0,
  "noerr": 0,
  "initialize": "",
  "finalize": "",
  "libs": [],
  "x": 1030,
  "y": 400,
  "wires": [
    []
  ]
},
{
  "id": "9f9d7fd1694f9a24",
  "type": "ui_button",
  "z": "30b74db4eade679f",
```

```
"name": "",
"group": "3a02d7ed38ca3b18",
"order": 3,
"width": 0,
"height": 0,
"passthru": false,
"label": "Update",
"tooltip": "",
"color": "",
"bgcolor": "",
"className": "",
"icon": "",
"payload": "",
"payloadType": "str",
"topic": "topic",
"topicType": "msg",
"x": 860,
"y": 460,
"wires": [
  [
    "2ac6e619528ecb96"
  ]
]
},
{
  "id": "2ac6e619528ecb96",
  "type": "function",
  "z": "30b74db4eade679f",
```

```
"name": "function 58",

"func": "var racktemp = flow.get('rack')||[];\nracktemp[flow.get('position')||0] =
flow.get('productnr')||0;\nflow.set('rack',racktemp);\nmsg.payload = racktemp;\nreturn
msg;",

"outputs": 1,

"timeout": 0,

"noerr": 0,

"initialize": "",

"finalize": "",

"libs": [],

"x": 1030,

"y": 460,

"wires": [

  [

    "ac3ba4f826879682"

  ]

]

},

{

  "id": "5cd50bd7b8f0718d",

  "type": "inject",

  "z": "30b74db4eade679f",

  "name": "",

  "props": [

    {

      "p": "payload"

    },

    {

      "p": "topic",
```

```
      "vt": "str"
    }
  ],
  "repeat": "",
  "crontab": "",
  "once": false,
  "onceDelay": 0.1,
  "topic": "",
  "payload": "",
  "payloadType": "date",
  "x": 880,
  "y": 540,
  "wires": [
    [
      "7f551c203e8e04e0"
    ]
  ]
},
{
  "id": "7f551c203e8e04e0",
  "type": "function",
  "z": "30b74db4eade679f",
  "name": "function 59",
  "func": "var arr =
[[1,2,0],[3,1,2],[0,0,2],[1,2,0]];\nflow.set('rack1',arr);\n//arr[3][1]=0;\nconsole.table(arr);\nmsg.payload = arr;\nreturn msg;",
  "outputs": 1,
  "timeout": 0,
  "noerr": 0,
```

```

"initialize": "",
"finalize": "",
"libs": [],
"x": 1070,
"y": 540,
"wires": [
  [
    "34f1737cf811e184",
    "2fc0e0ee888b552e"
  ]
]
},
{
  "id": "34f1737cf811e184",
  "type": "ui_template",
  "z": "30b74db4eade679f",
  "group": "3563f78448733f9a",
  "name": "",
  "order": 4,
  "width": "6",
  "height": "6",
  "format": "<style>\n  table {\n    width: 100%;\n    border-collapse: collapse;\n    margin-top: 20px;\n  }\n\n  th,\n  td {\n    padding: 10px;\n    text-align: center;\n    border: 1px solid #ddd;\n  }\n\n  th {\n    background-color: #f2f2f2;\n  }\n</style>\n<table>\n  <tr>\n    <th>Column 2</th>\n    <th>Column 1</th>\n    <th>Column 0</th>\n  </tr>\n  <tr>\n    <td></td>\n    <td></td>\n    <td></td>\n  </tr>\n  <tr>\n    <td></td>\n    <td></td>\n    <td></td>\n  </tr>\n  <tr>\n    <td></td>\n    <td></td>\n    <td></td>\n  </tr>\n  <tr>\n    <td></td>\n    <td></td>\n    <td></td>\n  </tr>\n</table>",
  "storeOutMessages": true,

```



```
"fwdInMessages": true,
"resendOnRefresh": true,
"templateScope": "local",
"className": "",
"x": 1260,
"y": 580,
"wires": [
  []
]
},
{
  "id": "2fc0e0ee888b552e",
  "type": "debug",
  "z": "30b74db4eade679f",
  "name": "debug 59",
  "active": true,
  "tosidebar": true,
  "console": false,
  "tostatus": false,
  "complete": "false",
  "statusVal": "",
  "statusType": "auto",
  "x": 1260,
  "y": 540,
  "wires": []
},
{
  "id": "9f9c7a95f7afb6c8",
```

```
"type": "ui_numeric",
"z": "30b74db4eade679f",
"name": "",
"label": "Row",
"tooltip": "",
"group": "3563f78448733f9a",
"order": 1,
"width": "3",
"height": "1",
"wrap": false,
"passthru": true,
"topic": "topic",
"topicType": "msg",
"format": "",
"min": 0,
"max": "3",
"step": 1,
"className": "",
"x": 850,
"y": 640,
"wires": [
  [
    "d9cd2dff3da57ab5"
  ]
]
},
{
  "id": "f17fe6a4efe59531",
```

```
"type": "ui_numeric",
"z": "30b74db4eade679f",
"name": "",
"label": "Column",
"tooltip": "",
"group": "3563f78448733f9a",
"order": 1,
"width": "3",
"height": "1",
"wrap": false,
"passthru": true,
"topic": "topic",
"topicType": "msg",
"format": "",
"min": 0,
"max": "3",
"step": 1,
"className": "",
"x": 860,
"y": 680,
"wires": [
  [
    "7f1ba341b890ade1"
  ]
]
},
{
  "id": "a7a843d144fd5d06",
```

```
"type": "ui_dropdown",
"z": "30b74db4eade679f",
"name": "",
"label": "",
"tooltip": "",
"place": "Select option",
"group": "3563f78448733f9a",
"order": 2,
"width": "0",
"height": "0",
"passthru": true,
"multiple": false,
"options": [
  {
    "label": "Empty",
    "value": 0,
    "type": "num"
  },
  {
    "label": "Green",
    "value": 1,
    "type": "num"
  },
  {
    "label": "Blue",
    "value": 2,
    "type": "num"
  },
]
```

```
{
  "label": "Brown",
  "value": 3,
  "type": "num"
},
"payload": "",
"topic": "topic",
"topicType": "msg",
"className": "",
"x": 860,
"y": 720,
"wires": [
  [
    "a3934afb3928eebb"
  ]
],
},
{
  "id": "d9cd2dff3da57ab5",
  "type": "function",
  "z": "30b74db4eade679f",
  "name": "function 60",
  "func": "flow.set('row',msg.payload);\nreturn msg;",
  "outputs": 1,
  "timeout": 0,
  "noerr": 0,
  "initialize": "",
```

```
"finalize": "",
"libs": [],
"x": 1070,
"y": 640,
"wires": [
  []
]
},
{
  "id": "7f1ba341b890ade1",
  "type": "function",
  "z": "30b74db4eade679f",
  "name": "function 61",
  "func": "flow.set('column',msg.payload);\nreturn msg;",
  "outputs": 1,
  "timeout": 0,
  "noerr": 0,
  "initialize": "",
  "finalize": "",
  "libs": [],
  "x": 1070,
  "y": 680,
  "wires": [
    []
  ]
},
{
  "id": "a3934afb3928eebb",
```

```
"type": "function",
"z": "30b74db4eade679f",
"name": "function 62",
"func": "flow.set('productnr1',msg.payload);\nreturn msg;",
"outputs": 1,
"timeout": 0,
"noerr": 0,
"initialize": "",
"finalize": "",
"libs": [],
"x": 1070,
"y": 720,
"wires": [
  []
]
},
{
  "id": "308797f6f9e3f65c",
  "type": "ui_button",
  "z": "30b74db4eade679f",
  "name": "",
  "group": "3563f78448733f9a",
  "order": 3,
  "width": 0,
  "height": 0,
  "passthru": false,
  "label": "Update",
  "tooltip": "",
```

```
"color": "",
"bgcolor": "",
"className": "",
"icon": "",
"payload": "",
"payloadType": "str",
"topic": "topic",
"topicType": "msg",
"x": 860,
"y": 760,
"wires": [
  [
    "81d8c580baaf8436"
  ]
]
},
{
  "id": "81d8c580baaf8436",
  "type": "function",
  "z": "30b74db4eade679f",
  "name": "function 63",
  "func": "var racktemp =
flow.get('rack1')||[];\nracktemp[flow.get('row')||0][flow.get('column')||0] =
flow.get('productnr1')||0;\nflow.set('rack1',racktemp);\nmmsg.payload =
racktemp;\nreturn msg;",
  "outputs": 1,
  "timeout": 0,
  "noerr": 0,
  "initialize": "",
```



```
"finalize": "",
"libs": [],
"x": 1070,
"y": 760,
"wires": [
  [
    "34f1737cf811e184"
  ]
]
},
{
  "id": "3a02d7ed38ca3b18",
  "type": "ui_group",
  "name": "Rack (Single dimension array)",
  "tab": "6adbf7298e660d42",
  "order": 1,
  "disp": true,
  "width": "6",
  "collapse": false,
  "className": ""
},
{
  "id": "3563f78448733f9a",
  "type": "ui_group",
  "name": "Rack (Multi-dimension array)",
  "tab": "6adbf7298e660d42",
  "order": 2,
  "disp": true,
```

```
"width": "6",  
"collapse": false,  
"className": ""  
},  
{  
  "id": "6adbf7298e660d42",  
  "type": "ui_tab",  
  "name": "Array project",  
  "icon": "dashboard",  
  "order": 4,  
  "disabled": false,  
  "hidden": false  
}  
]
```