

Hycube Visual Web Interface

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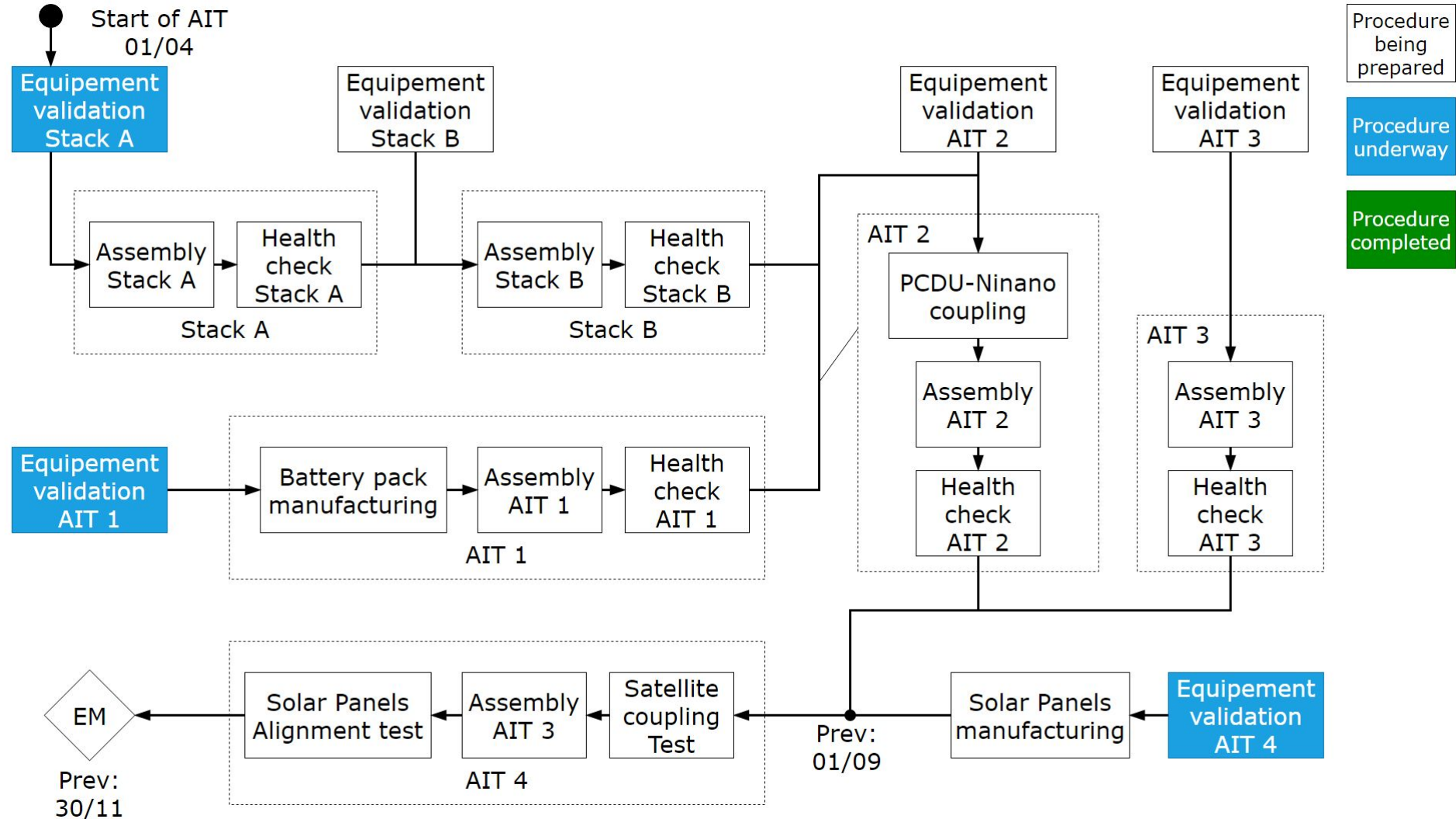


Table of content

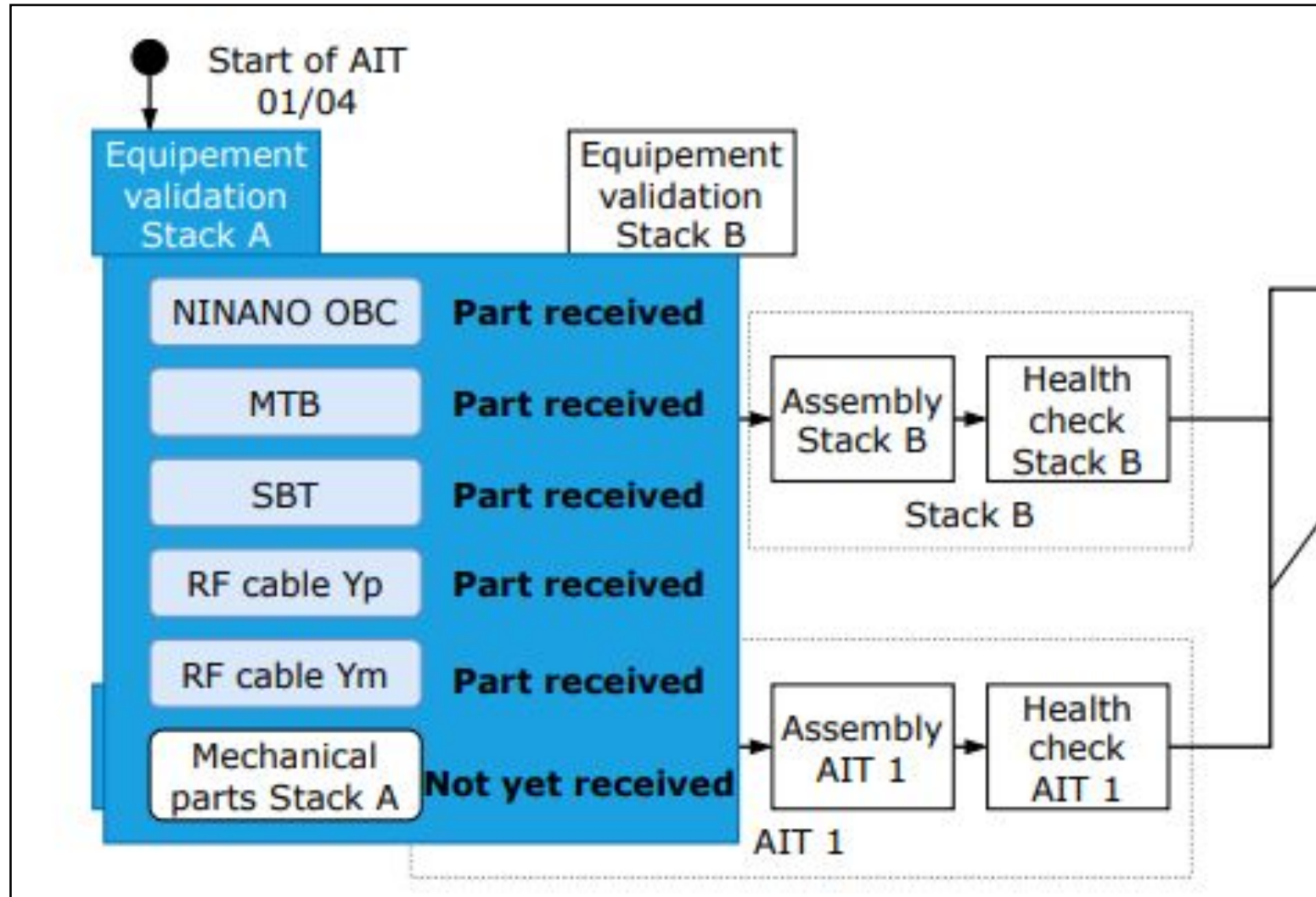
- General presentation
- How does websites works
- Means and tools (technologies)
- What are frameworks and why do we use them?
- Demo

General presentation

General presentation



General presentation



How does websites work ?

How does websites work?

- Web browser
- Web Server
- Code files (HTML, CSS, JS)
- Front-end / back-end

What is a browser ?



Internet Explorer



Firefox



Chrome

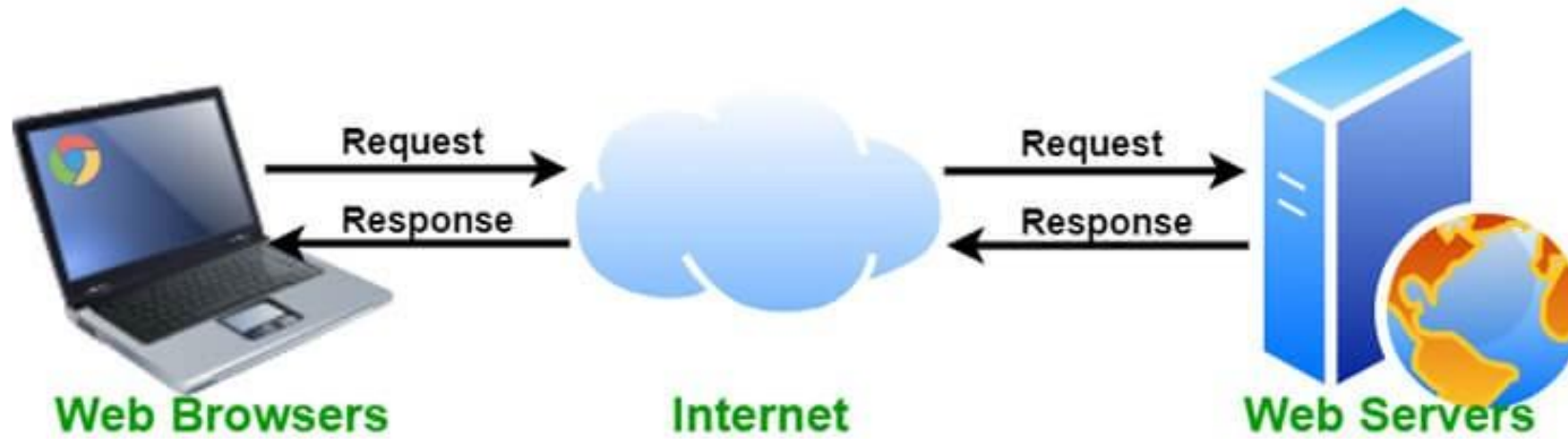


Opera



Safari

Web server



Code files

HTML



Hypertext Markup Language

CSS



Cascading Style Sheets

JS



JavaScript

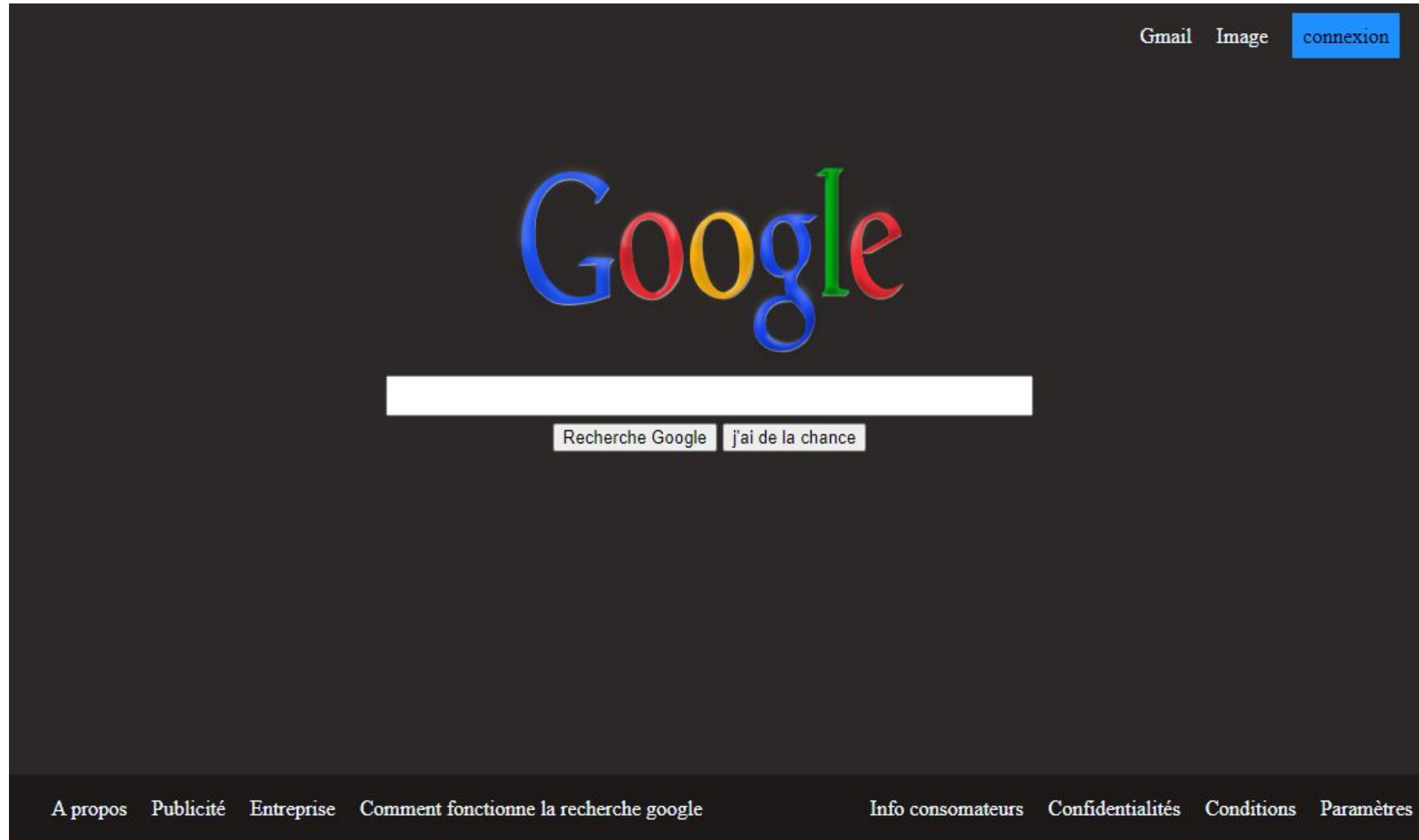
Example 1: Google page with HTML

- [Gmail](#)
- [Image](#)
- [connexion](#)



- [A propos](#)
- [Publicité](#)
- [Entreprise](#)
- [Comment fonctionne la recherche google](#)
- [Info consommateurs](#)
- [Confidentialité](#)
- [Conditions](#)
- [Paramètres](#)

Example 1: Google page with HTML + CSS



Example 2: password verification with javaScript

```
<script>
function demanderMDP(){
    var mdp= prompt("Enter your password ");
    if(verif(mdp) && mdp.match(/\d{3}$/)){
        alert("you are connected");
    }
    else{
        alert("incorrect password");
        demanderMDP();
    }
}

function verif(n){
    if((n%5 == 0) && n>505){
        return true;
    }
    else return false;
}
demanderMDP();
</script>
```

Cette page indique

Enter your password

OK Annuler

Cette page indique

incorrect password

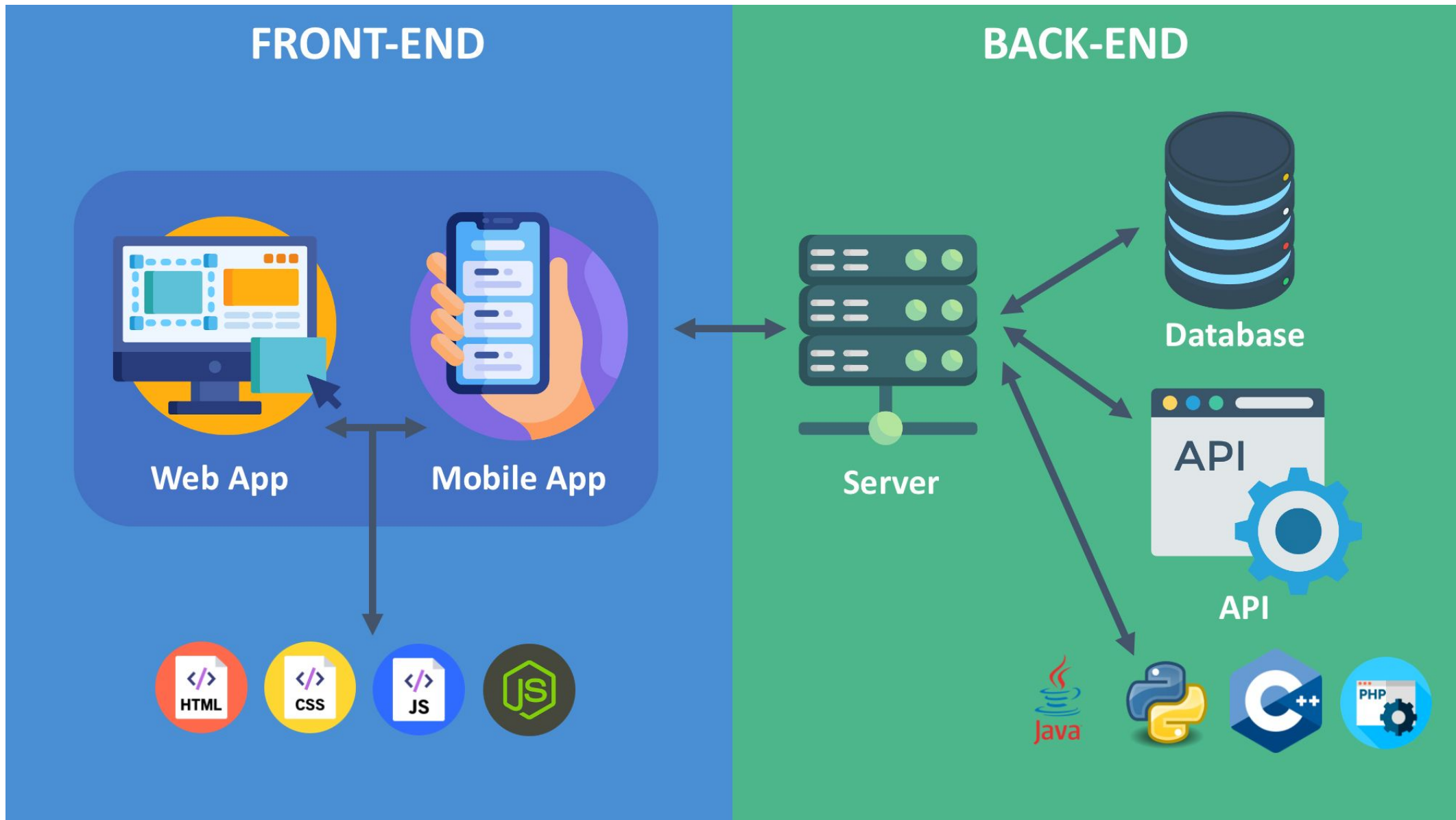
OK

Cette page indique

you are connected

OK

Front-end / back-end



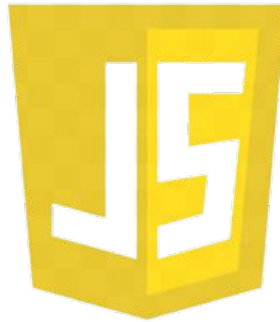
Means and tools

Means and tools

HTML



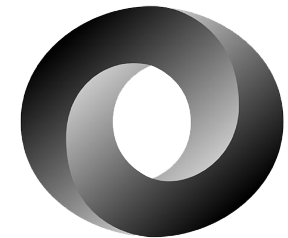
JS



CSS



Vue.js



JSON

Node js and NPM package

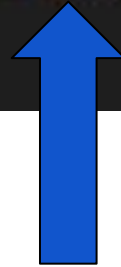
- Node.js is what allows javaScript to run on a server



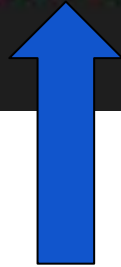
Node Package Manager

JSON (JavaScript Object Notation)

```
"name" : "hycube"
```



key



value

JSON (JavaScript Object Notation)

Json file

Object

```
{  
  "Procedure being prepared": {  
    "color": "rgb(255, 255, 255)"  
  },  
  "procedure underway": {  
    "color": "rgb(105, 154, 197)"  
  },  
  "procedure completed": {  
    "color": "rgb(92, 165, 92)"  
  }  
}
```

Output

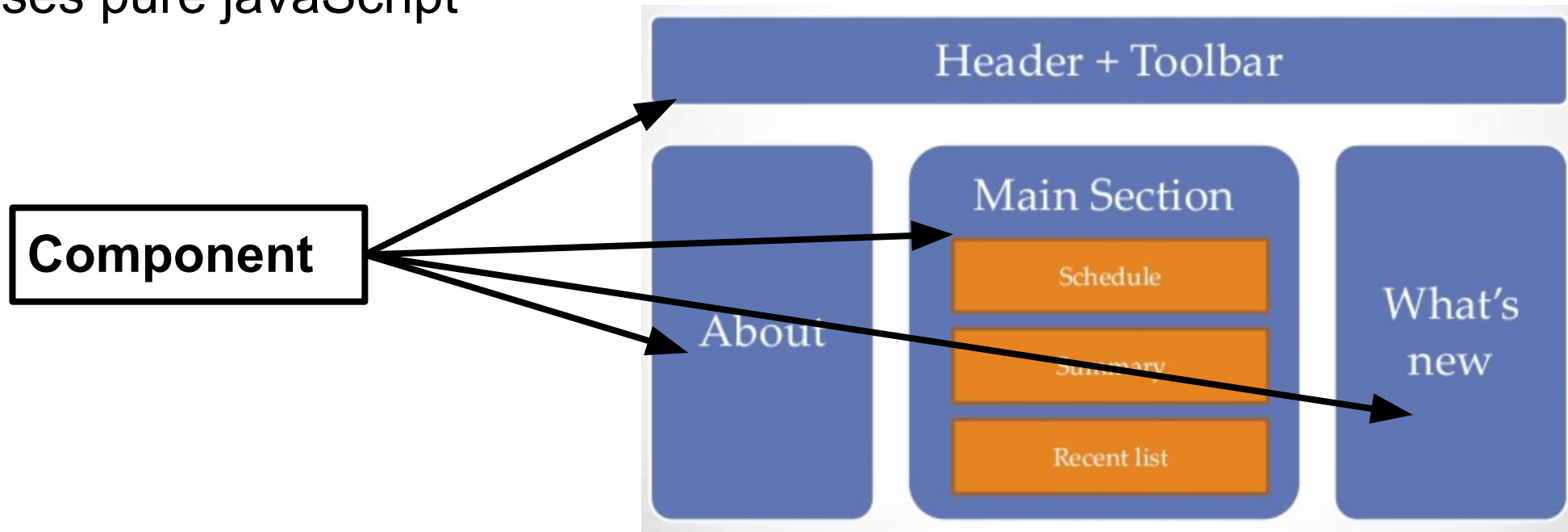
*Procedure
being
prepared*

*procedure
underway*

*procedure
completed*

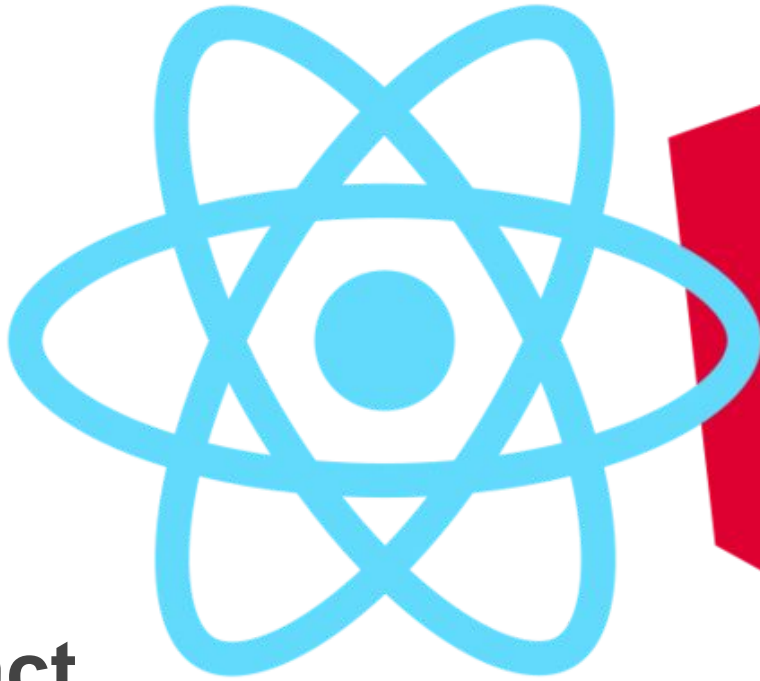
Vue.js framework

- JavaScript front-end framework
- small and efficient
- fast at run time
- uses pure JavaScript



Why do we use frameworks ?

What are frameworks and why do we use them?



React



Angular



Vue.js

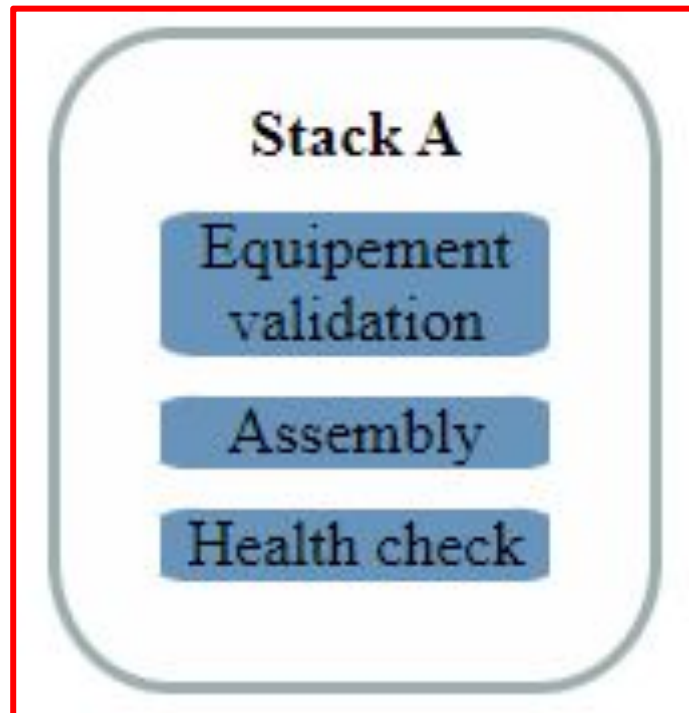
Example 1 : generating one component

Using a framework

```
<template>
  <div class="component" >
    <div class="name">
      {{itemName}}
    </div>
    <div class="menu-items">
      Equipement validation
    </div>
    <div class="menu-items">
      Assembly
    </div>
    <div class="menu-items">
      Health check
    </div>
  </div>
</template>

<script>
export default{
  data () {
    return {
      itemName: "Stack A"
    }
  }
}
</script>
```

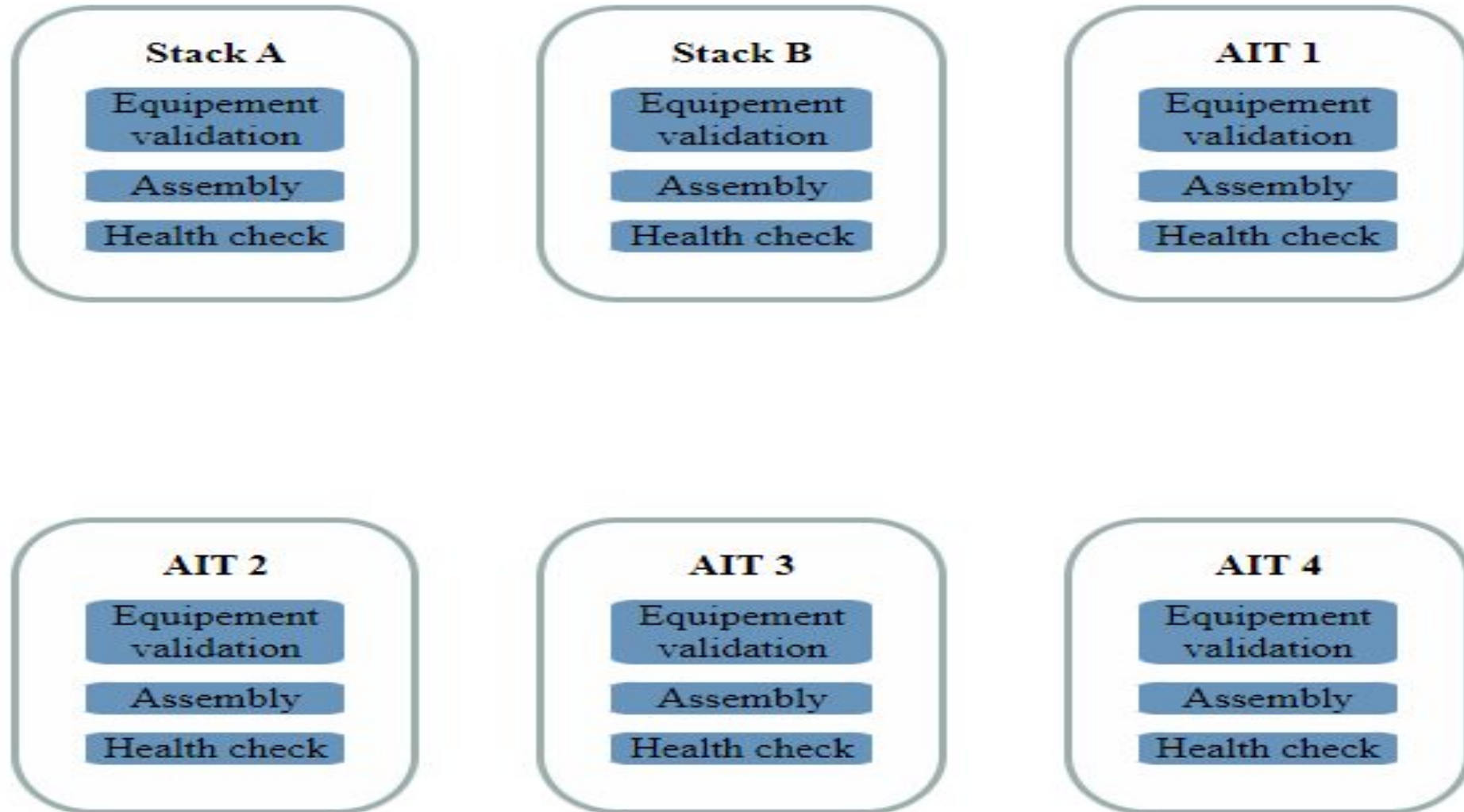
Component



Without a framework

```
<body>
  <div class="component">
    <div class="componentName">
      Stack A
    </div>
    <div class="menu-item">
      Equipement validation
    </div>
    <div class="menu-item">
      Assembly
    </div>
    <div class="menu-item">
      Health check
    </div>
  </div>
</body>
```

Example 2 : generating multiple components



Using a framework

```
1  <template>
2    <div class="component" v-for="(name, index) in names" :key="index" >
3      <div class="name">
4        {{itemName}}
5      </div>
6      <div class="menu-items">
7        Equipement validation
8      </div>
9      <div class="menu-items">
10       Assembly
11     </div>
12     <div class="menu-items">
13       Health check
14     </div>
15   </div>
16 </template>
17
18 <script>
19   'use strict';
20   let jsonData = require('../../data/AitData.json');
21   export default{
22     data () {
23       return {
24         itemName: Object.keys(jsonData)
25       }
26     }
27   }
28 </script>
```


Without using a framework

```
1 <body>
2   <div class="component">
3     <div class="componentName">
4       <b> Stack A </b>
5     </div>
6     <div class="menu-item">
7       Equipement validation
8     </div>
9     <div class="menu-item">
10      Assembly
11    </div>
12    <div class="menu-item">
13      Health check
14    </div>
15  </div>
16  <div class="component">
17    <div class="componentName">
18      <b> Stack B </b>
19    </div>
20    <div class="menu-item">
21      Equipement validation
22    </div>
23    <div class="menu-item">
24      Assembly
25    </div>
26    <div class="menu-item">
27      Health check
28    </div>
29  </div>
```

```
30 <div class="component">
31   <div class="componentName">
32     <b> AIT 1 </b>
33   </div>
34   <div class="menu-item">
35     Equipement validation
36   </div>
37   <div class="menu-item">
38     Assembly
39   </div>
40   <div class="menu-item">
41     Health check
42   </div>
43 </div>
44 <div class="component">
45   <div class="componentName">
46     <b> AIT 2 </b>
47   </div>
48   <div class="menu-item">
49     Equipement validation
50   </div>
51   <div class="menu-item">
52     Assembly
53   </div>
54   <div class="menu-item">
55     Health check
56   </div>
57 </div>
```

```
58 <div class="component">
59   <div class="componentName">
60     <b> AIT 3 </b>
61   </div>
62   <div class="menu-item">
63     Equipement validation
64   </div>
65   <div class="menu-item">
66     Assembly
67   </div>
68   <div class="menu-item">
69     Health check
70   </div>
71 </div>
72 <div class="component">
73   <div class="componentName">
74     <b> AIT 4 </b>
75   </div>
76   <div class="menu-item">
77     Equipement validation
78   </div>
79   <div class="menu-item">
80     Assembly
81   </div>
82   <div class="menu-item">
83     Health check
84   </div>
85 </div>
```


Demo

Questions ?

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