Les fonctions

Création standard

```javascript
function createUser(name, age, man) {

  return {
    name, age, man,
    role: 'ANONYME',
    sayHello() {
      console.log(`Salut, je m'appelle ${this.name}.`);
    }
  };
}


const user = createUser('André', 35, true)
user.sayHello(); // Salut, je m'appelle André.
```

Isolation de fonction

```javascript
(function createUser(name, age, man) {

  return {
    name, age, man,
    role: 'ANONYME',
    sayHello() {
      console.log(`Salut, je m'appelle ${this.name}.`);
    }
  };
})

const user = createUser('André', 35, true) // createUser is not defined
```

Principe de la programmation modulaire

```javascript
(function createUser(name, age, man) {

  return {
    name, age, man,
    role: 'ANONYME',
    sayHello() {
      console.log(`Salut, je m'appelle ${this.name}.`);
    }
  };
})('André', 35, true).sayHello(); // Salut, je m'appelle André.
```

Module : privé / public

```javascript
const PersonModule = (function (name, age, isMan) {
  name = name || 'Anonyme';
  age = age || 0;

  const role = 'ROLE_ANONYME';
  const sayHello = function() {
    console.log(`Salut, je m'appelle ${this.name}.`);
  }

  return { name, age, role, sayHello }; // isMan n'est pas retourné

})('André', 35, true); // Default values

PersonModule.sayHello();
console.log(PersonModule.isMan); // undefined car 'isMan' est privé !
```

Module loader

(Exercice après démo)

arborescence

```
∨ js
  JS main.js
  JS users.js
> node_modules
<> index.html
JS index.js
{} package-lock.json
{} package.json
```

index.html

```
 7    <script data-main="index" src="/node_modules/requirejs/require.js"></script>
 8  </head>
 9
10 ∨ <body>
11
12    <h1>Liste des utilisateurs</h1>
13    <div class="users"></div>
```

index.js

```
1  requirejs.config({
2    baseUrl: 'js'
3  });
4
5  requirejs(['main']);
```

Module loader

(Exercice après démo)

js/users.js

```
1  define('Users', function() {
2    const all = [
3      { name: 'coco', age: 12 },
4      { name: 'jaco', age: 54 },
5      { name: 'pedro', age: 22 },
6      { name: 'franco', age: 20 },
7    ];
8
9    return { all };
10 })
```

Module loader

(Exercice après démo)

js/main.js

```javascript
requirejs(['Users'], function(u) {
  const usersTag = document.querySelector('.users');
  let html = '';

  for (let { name, age } of u.all) {
    html += `<div>${name} a ${age} ans.</div>`
  }

  usersTag.innerHTML = html;
})
```

Module loader

(Exercice supplémentaire: master/details)

index.html

```html
 6        <title>TITLE</title>
 7        <script data-main="main" src="/node_modules/
          requirejs/require.js"></script>
 8        <style>
 9          .users > div {
10            cursor: pointer;
11          }
12        </style>
13    </head>
14
15    <body>
16
17        <h1>Liste des utilisateurs</h1>
18
19        <!-- MASTER -->
20        <div class="users"></div>
21
22        <!-- DETAILS -->
23        <div class="details"></div>
```

Module loader

(Exercice supplémentaire: master/details)

js/main.js

```
1   requirejs.config({
2       baseUrl: 'js'
3   });
4
5   requirejs(['app']); // js/app.js
```

Module loader

(Exercice supplémentaire: master/details)

js/users.js

```
1  define('Users', function() {
2    const users = [
3      { id: '31b64b10-886b-11ea-afbc-bff473fb98fd', name: 'coco', age: 12 },
4      { id: '33153ed0-886b-11ea-afbc-bff473fb98fd', name: 'jaco', age: 54 },
5      { id: '344f6c80-886b-11ea-afbc-bff473fb98fd', name: 'pedro', age: 22 },
6      { id: '35637490-886b-11ea-afbc-bff473fb98fd', name: 'franco', age: 20 },
7    ];
8
9    const findAll = function() {
10     return users;
11   }
12
13   const findOne = function(id) {
14     const index = users.findIndex(user => user.id === id );
15     return users[index];
16   }
17
18   return {
19     findOne,
20     findAll
21   };
22 });
```

Module loader

(Exercice supplémentaire: master/details)

js/app.js

```javascript
1   requirejs(['Users'], function(users) {
2     const usersTag = document.querySelector('.users');
3     let html = '';
4
5     for (let user of users.findAll()) {
6       html += `<div data-id="${user.id}">${user.name}</div>`;
7     }
8
9     usersTag.innerHTML = html;
10
11    document
12      .querySelectorAll('.users > div')
13      .forEach(function(userTag) {
14        userTag.addEventListener('mouseenter', function() {
15          const user = users.findOne(userTag.dataset.id);
16          document
17            .querySelector('.details')
18            .textContent = `${user.name} a ${user.age} ans.`;
19        })
20      })
21  });
```

FIN