

# Les tests

Tester, c'est douter

## Les types de tests

- Static analysis / Linting
- Unit testing
- Integration testing
- End-to-End (e2e) testing

## Static analysis / Linting

- Eslint => le plus utilisé en Javascript
- Analyse du code sans l'exécuter
- Détecte les erreurs de programmation comme :
  - Les variables non utilisées
  - Les imports manquants
  - ...
- Intégré aux IDEs pour un feedback immédiat

```
./src/scenes/presentations/Testing/Testing.js
```

<b>Line 4:</b>	'BlockQuote' is defined but never used	<u>no-unused-vars</u>
<b>Line 5:</b>	'Cite' is defined but never used	<u>no-unused-vars</u>
<b>Line 8:</b>	'Image' is defined but never used	<u>no-unused-vars</u>
<b>Line 11:</b>	'Quote' is defined but never used	<u>no-unused-vars</u>

## Unit testing

- Test d'une portion ou unité d'une application
- On va tester les fonctions de manière isolées
- Ecrire des fonctions pures => plus simple à tester

```
<span class="kd">function</span> <span class="nx">add</span><span class="p">(</span>  
  <span class="k">return</span> <span class="nx">a</span> <span class="o">+</span>  
<span class="p">}</span></span>  
  
<span class="nx">describe</span><span class="p">(</span><span class="s2">"add"</span>  
  <span class="nx">test</span><span class="p">(</span><span class="s2">"should a  
    <span class="nx">expect</span><span class="p">(</span><span class="nx">add  
  <span class="p">})</span></span>  
  
  <span class="nx">test</span><span class="p">(</span><span class="s2">"should a  
    <span class="nx">expect</span><span class="p">(</span><span class="nx">add  
  <span class="p">})</span></span>  
<span class="p">})</span></span>
```

## Integration testing

- Test d'une fonctionnalité
- Dans une app web => test d'une route
- On va tester l'interaction entre plusieurs fonctions

```
<span class="nx">describe</span><span class="p">(</span><span class="s2">"find all  
  <span class="nx">test</span><span class="p">(</span><span class="s2">"should  
    <span class="k">return</span> <span class="nx">request</span><span class="p">(</span>  
      <span class="p">.</span><span class="nx">get</span><span class="p">(</span>  
        <span class="p">.</span><span class="nx">expect</span><span class="p">(</span>  
          <span class="p">.</span><span class="nx">expect</span><span class="p">(</span>  
    <span class="p">})</span></span>  
<span class="p">})</span>
```



## Test d'integration vs test unitaire







## End-to-End testing

- Test de l'interface
- On va simuler des scénarios utilisateur
- Les scénarios vont cliquer, saisir, scroller dans la page

## Et pleins d'autres encore

- Regression testing
- Monkey testing
- Canary testing
- ...

Test-driven development

Les mocks