



# Introduction to TestCafe

**End-to-end web testing** 





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# | What you'll learn

> Getting Started

What is TestCafe, how to install it and creating your first test.

> Using TestCafe

Writing a real test using a sample project: this will show you how to query elements, observe page state, interact with elements, use assertions.

Organizing tests with the page object pattern, using hooks

>\_ Running Tests

Browsers support, headless mode, device emulation, concurrency

> Continuous Integration

Using CircleCI to run tests and see results

Some features you should know it exist: intercepting HTTP requests, screenshots and videos, reporters, TestCafe studio.

> Features







# **Getting started**







# | What is TestCafe?

- A node.js tool to automate end-to-end web testing
- Write tests in JS or TypeScript, run them and view results
- Free and open source
- ✓ v1.0.1 since February 2019

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# Requirements and installation

- Be sure Node and NPM are installed (you can also use yarn)
- No webdriver needed
- Installation with just one command:
  - yarn add --dev testcafe

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## Test code structure

Simplest file test looks like that:

```
fixture `Getting Started`
  .page `https://blog.xebia.fr`;

test('My first test', async t => {
    // Test code
});
```

TestController is passed to each test function

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## Test code structure

✓ You run it with the command: 
testcafe chrome test.js

```
Running tests in:
- Chrome 72.0.3626 / Mac OS X 10.13.6

Getting Started

✓ My first test

1 passed (2s)
```

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# **Using TestCafe**







# The project we gonna test

- ∠ A React app with Material-ui:
  - Home page with enter button
  - Posts page with a list of links
  - Article page with content of a post
  - Add page to post a new article
- Sources on Github
- Deployed on <u>xke-introduction-testcafe.surge.sh</u>







# The home page to test



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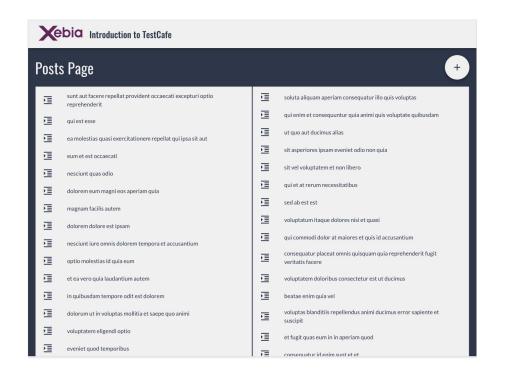
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# The posts page



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# An article page



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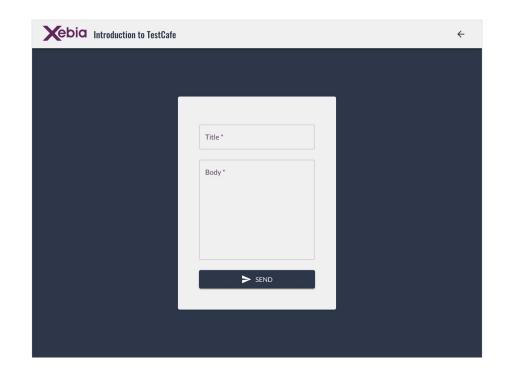
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# The form page to add an article



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## The tests we want

- ∠ As a user, when I'm on the home page, I can enter the app and see articles links. If I click on a link, I can see the article page.
- As a user, from the home, I can access to the add page with a form in order to post a new article. I can post my article.







# Let's writing our first scenario

```
fixture `Navigation`.page `http://localhost:3000`;

test('Access to an article from the home page', async t => {
    // Test code
});
```

\* For now we need to run our project locally

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#### Introduction to TestCafe





Live mode is enabled. TestCafe now watches source files and reruns the tests once the changes are saved. You can use the following keys in the terminal: 'Ctrl+S' - stops the test run; 'Ctrl+R' - restarts the test run; 'Ctrl+W' - enables/disables watching files; 'Ctrl+C' - quits live mode and closes the browsers. Watching the following files: /Users/proustibat/workspace/xebia/xke-introduction-testcafe/e2e/index.js Running tests in: - Chrome 72.0.3626 / Mac OS X 10.13.6 Navigation ✓ Access to a specific article from the home page 1 passed (0s)







# | Querying elements with Selector

- ∠ It's a function that identifies a webpage element in the test. The selector API provides methods and properties to select elements on the page and get their state.
- TestCafe uses standard CSS selectors to locate elements. It's like when you use document.querySelector in JS.

```
Selector('#search-subscriptions-input');
Selector('.anteriority-modal');
Selector('ul').find('label').parent('div.someClass');
Selector('p').parent(1).nth(3).find('.ctx').withText('yo!');
```







## Selectors in our tests

```
import { Selector } from 'testcafe';

fixture `Navigation`.page `http://localhost:3000`;

test('Access to an article from the home page', async t => {
  const startBtn = Selector('a').nth(1);
});
```









# Actions

- ✓ Test API provides a set of actions that enable you to interact with the webpage.
- Actions are implemented as methods in the test controller object and can be chained.
- Multiples actions are available: Click, Right Click, Double Click, Drag Element, Hover, Take Screenshot, Navigate, Press Key, Select Text, Type Text, Upload, Resize Window







## **Actions**

```
import { Selector } from 'testcafe';

fixture `Navigation`.page `http://localhost:3000`;

test('Access to a specific article from the home page', async
t => {
  const startBtn = Selector('a').nth(1);
  await t.click(startBtn);
});
```







# Observing page state

- TestCafe allows you to observe the page state:
  - Selector used to get direct access to DOM elements
  - ClientFunction used to obtain arbitrary data from the client side.
- The selector API provides methods and properties to select elements on the page and get theirs state.
- For example you can access the text content of a node element with `innerText`

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# Observing page state

```
import { Selector } from 'testcafe';
fixture `Navigation`.page `http://localhost:3000`;
test('Access to an article from the home page', async t => {
const startBtn = await Selector('a').nth(1);
await t.click(startBtn);
 const title = await Selector('h4');
 const titleText = await title.innerText;
 console.log(titleText); // Posts Page
});
```

\* Note these methods and property getters are asynchronous

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## **Assertions**

- A functional test should also check the result of actions performed
- The following assertion methods are available: Deep Equal, Not Deep Equal, Ok, Not Ok, Contains, Not Contains, Type of, Not Type of, Greater than, Greater than or Equal to, Less than, Less than or Equal to, Within, Not Within, Match, Not Match







## **Assertions**

```
import { Selector } from 'testcafe';
fixture `Navigation`.page `http://localhost:3000`;
test('Access to an article from the home page', async t => {
const startBtn = await Selector('a').nth(1);
await t.click(startBtn);
const title = await Selector('h4');
const titleText = await title.innerText;
 await t.expect(titleText).eql('Posts Page');
});
```

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# Our complete first test

```
// WHEN (enter click on home page)
const startBtn = await Selector('a').nth(1);
await t.click(startBtn);
// THEN (posts page elements verification)
await t.expect(await Selector('h4').innerText).eql('Posts Page');
const links = await Selector('ul').child('a');
await t.expect(await links.count).eql(100);
// WHEN (click on first article link)
const firstLink = await links.nth(0).child('div');
const firstLinkText = await firstLink.innerText; // save link value
await t.click(firstLink);
// THEN (article page)
const titleArticleEl = await Selector('h4');
const titleArticleText = await titleArticleEl.innerText;
await t.expect(titleArticleText).eql(firstLinkText);
```



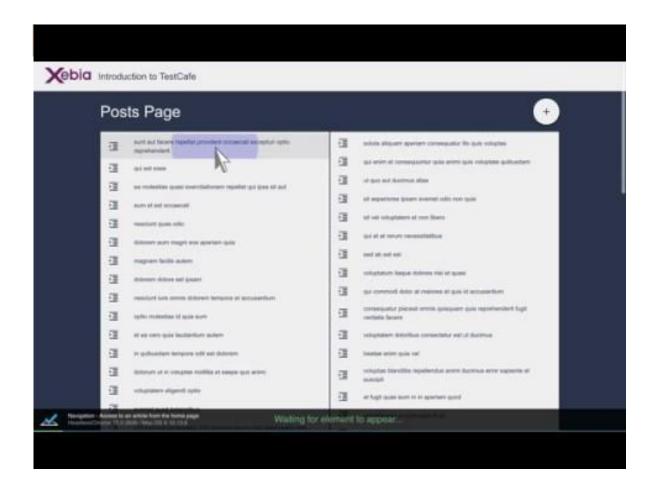






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#### What about the second test?

```
test('Access to the form and posting an article, coming from home',
async t => {
// WHEN (enter click on home page)
const startBtn = await Selector('a').nth(1);
await t.click(startBtn);
// THEN (posts page elements verification)
await t.expect(await Selector('h4').innerText).eql('Posts Page');
const links = await Selector('ul').child('a');
await t.expect(await links.count).eql(100);
 // TODO
 // Check if a "plus button" exists
 // Click on the button
 // Check if we've navigated to the form page
 // Enter a title and a content
 // Submit the form
 // Check the success notification
```







# Let's begin with the well known part!

```
// Check if a "plus button" exists
const addBtn = await Selector('button[aria-label=Add]');
await t.expect(addBtn.exists).ok();

// Click on the button
await t.click(addBtn);

// Check if we've navigated to the form page
const formEl = await Selector('form');
await t.expect(formEl.exists).ok();
```







# | Typing text

```
// Enter a title
const inputTitle = await formEl.find('#field-title');
await t.typeText(inputTitle, 'How TestCafe is awesome!');
// Enter a content
const textAreaField = await formEl.find('#field-content');
await t.typeText(textAreaField, 'Bla Bli Blou');
// Submit the form
const submitBtn = await formEl.find('button');
await t.click(submitBtn);
// Check the success notification
const toastEl = await Selector('.Toastify').child('div');
await t.expect(toastEl.exists).ok();
```



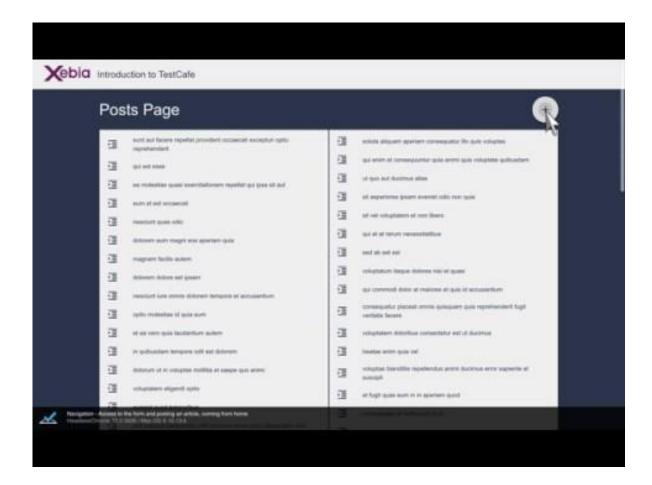






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# The page object pattern

- Page Model is a test automation pattern that allows you to create an abstraction of the tested page and use it in test code to refer to page elements.
- Keep page representation in the Page Model, while tests remain focused on the behavior.
- Improve maintainability
- Read <u>TestCafe documentation</u>







# Reorganizing our code: create home model

```
import { Selector } from 'testcafe';

export default class HomePage {
  constructor () {
    this.startBtn = Selector('a').nth(1);
  }
}
```







# Reorganizing our code: use home model

```
import { Selector } from 'testcafe';
import HomePage from './models/home';
const homePage = new HomePage();
fixture `Navigation`.page `http://localhost:3000`;
test.only('Access to an article from the home page', async t => {
  // const startBtn = await Selector('a').nth(1);
  // await t.click(startBtn);
 await t.click(homePage.startBtn);
 . . .
});
```







# Reorganizing our code: create posts model

```
import { Selector } from 'testcafe';

export default class PostsPage {
  constructor () {
    this.title = Selector('h4');
    this.links = Selector('ul').child('a');
    this.addBtn = Selector('button[aria-label=Add]');
  }
}
```

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# Reorganizing our code: use posts model

Replace title and links selectors:

```
// THEN (posts page elements verification)
await t.expect(await Selector('h4').innerText).eql('Posts Page');
const links = await Selector('ul').child('a');
await t.expect(await links.count).eql(100);
```

#### By:

```
// THEN (posts page elements verification)
await t.expect(await postsPage.title.innerText).eql('Posts Page');
const links = await postsPage.links;
await t.expect(await links.count).eql(100);
```

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# Reorganizing our code: use posts model

Replace add button selector:

```
// Check if a "plus button" exists
const addBtn = await Selector('button[aria-label=Add]');
await t.expect(addBtn.exists).ok();

// Click on the button
await t.click(addBtn);
```

#### By:

```
// Check if a "plus button" exists
await t.expect(await postsPage.addBtn.exists).ok();

// Click on the button
await t.click(await postsPage.addBtn);
```







#### Reorganizing our code: create article model

```
import { Selector } from 'testcafe';

export default class ArticlePage {
  constructor () {
    this.title = Selector('h4');
  }
}
```

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#### Reorganizing our code: use article model

#### Replace:

```
// THEN (article page)
const titleArticleEl = await Selector('h4');
const titleArticleText = await titleArticleEl.innerText;
```

#### By:

```
// THEN (article page)
const titleArticleText = await articlePage.title.innerText;
```

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#### Reorganizing our code: create add page model

```
import { Selector } from 'testcafe';

export default class AddPage {
  constructor () {
    this.form = Selector('form');
    this.inputTitle = this.form.find('#field-title');
    this.textAreaField = this.form.find('#field-content');
    this.submitBtn = this.form.find('button');
}
```

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#### Reorganizing our code: use add page model

#### Replace:

```
// Check if we've navigated to the form page
const formEl = await Selector('form');
await t.expect(formEl.exists).ok();
// Enter a title
const inputTitle = await formEl.find('#field-title');
await t.typeText(inputTitle, 'How TestCafe is awesome!');
// Enter a content
const textAreaField = await formEl.find('#field-content');
await t.typeText(textAreaField, 'Bla Bli Blou');
// Submit the form
const submitBtn = await formEl.find('button');
await t.click(submitBtn);
```

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#### Reorganizing our code: use add page model

#### By:

```
// Check if we've navigated to the form page
const formEl = await addPage.form;
await t.expect(formEl.exists).ok();
// Enter a title, a content and submit form
const inputTitle = await addPage.inputTitle;
const textAreaField = await addPage.textAreaField;
const submitBtn = await addPage.submitBtn;
await t
 .typeText(inputTitle, 'How TestCafe is awesome!')
 .typeText(textAreaField, 'Bla Bli Blou')
 .click(submitBtn);
```

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#### | Adding actions to the model pages

TestCafe allows to use Test Controller outside of test code by importing it:

```
import { Selector, t } from 'testcafe';
```

Add this to our add page model:

```
async submitForm (title, content) {
  await t
    .typeText(this.inputTitle, title)
    .typeText(this.textAreaField, content)
    .click(this.submitBtn);
}
```

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#### Use actions from our add model:

#### Replace:

```
// Enter a title, a content and submit form
const inputTitle = await addPage.inputTitle;
const textAreaField = await addPage.textAreaField;
const submitBtn = await addPage.submitBtn;
await t
   .typeText(inputTitle, 'How TestCafe is awesome!')
   .typeText(textAreaField, 'Bla Bli Blou')
   .click(submitBtn);
```

#### By:

```
// Enter a title, a content and submit form
await addPage.submitForm(
  'How TestCafe is awesome!',
  'Bla Bli Blou'
);
```







#### Complete add page model with:

```
async isPageDisplayed () {
  await t.expect(await this.form.exists).ok();
  await t.expect(await this.inputTitle.exists).ok();
  await t.expect(await this.textAreaField.exists).ok();
  await t.expect(await this.submitBtn.exists).ok();
}
```

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#### Complete posts page model with:

```
async isPageDisplayed () {
 await t.expect(await this.title.innerText).eql('Posts Page');
 await t.expect(await this.links.count).eql(100);
 await t.expect(await this.addBtn.exists).ok();
async clickFirstLink () {
 const link = await this.links.nth(0).child('div');
 const linkText = await link.innerText;
 await t.click(link);
 return linkText;
```

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#### Create a toast model as follows:

```
import { Selector, t } from 'testcafe';
export default class ToastPage {
 constructor () {
  this.toastEl = Selector('.Toastify').child('div');
 async isToastDisplayed () {
  await t.expect(await this.toastEl.exists).ok();
```

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#### The first test

Now

```
test('Access to an article from the home page', async t =>
 await t.click(homePage.startBtn);
 await postsPage.isPageDisplayed();
 const text = await postsPage.clickFirstLink();
 await t
   .expect(await articlePage.title.innerText)
   .eql(text);
});
```

#### The first test

Before

```
test('Access to an article from the home page', async t =>
 // WHEN (enter click on home page)
 const startBtn = await Selector('a').nth(1);
 await t.click(startBtn):
 // THEN (posts page elements verification)
 await t.expect(await Selector('h4').innerText).eql('Posts
Page');
 const links = await Selector('ul').child('a');
 await t.expect(await links.count).eql(100);
 const firstLink = await links.nth(0).child('div');
 const firstLinkText = await firstLink.innerText;
 await t.click(firstLink);
 // THEN (article page)
 const titleArticleEl = await Selector('h4');
 const titleArticleText = await titleArticleEl.innerText;
 await t.expect(titleArticleText).eql(firstLinkText);
});
```





#### The second test

Now

```
test('Access to the form and posting an article, coming
from home', async t => {
await t.click(homePage.startBtn);
await postsPage.isPageDisplayed();
 await t.click(await postsPage.addBtn);
 await addPage.isPageDisplayed();
await addPage.submitForm(
   'How TestCafe is awesome!',
   'Bla Bli Blou'
await toastPage.isToastDisplayed();
});
```

#### The second test

Before

```
test('Access to the form and posting an article, coming from home', async t => {
 const startBtn = await Selector('a').nth(1);
 await t.click(startBtn);
 await t.expect(await Selector('h4').innerText).eql('Posts Page');
 const links = await Selector('ul').child('a');
 await t.expect(await links.count).eql(100);
 const addBtn = await Selector('button[aria-label=Add]');
 await t.expect(addBtn.exists).ok();
 await t.click(addBtn);
 const formEl = await Selector('form');
 await t.expect(formEl.exists).ok();
 const inputTitle = await formEl.find('#field-title');
 await t.typeText(inputTitle, 'How TestCafe is awesome!');
 const textAreaField = await formEl.find('#field-content');
 await t.typeText(textAreaField, 'Bla Bli Blou');
 const submitBtn = await formEl.find('button');
 await t.click(submitBtn);
 const toastEl = await Selector('.Toastify').child('div');
 await t.expect(toastEl.exists).ok();
```







#### Hooks

∠ TestCafe allows you to specify functions that are executed before a fixture or test is started and after it is finished.

```
fixture.beforeEach(fn(t))
```

- fixture.afterEach(fn(t))
- test.before(fn(t))
- test.after(fn(t))
- Note that test hooks override fixture hooks

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#### Hooks in our tests

- We need to click on the start button in each of our tests
- So we can use

```
fixture`Navigation`
  .page`http://localhost:3000`
  .beforeEach( async t => {
    await t.click(homePage.startBtn);
    await postsPage.isPageDisplayed();
});
```

Then remove the lines from our tests

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## Debugging

- ✓ TestCafe provides the t.debug method that pauses the test and allows you to debug using the browser's developer tools.
- Example:

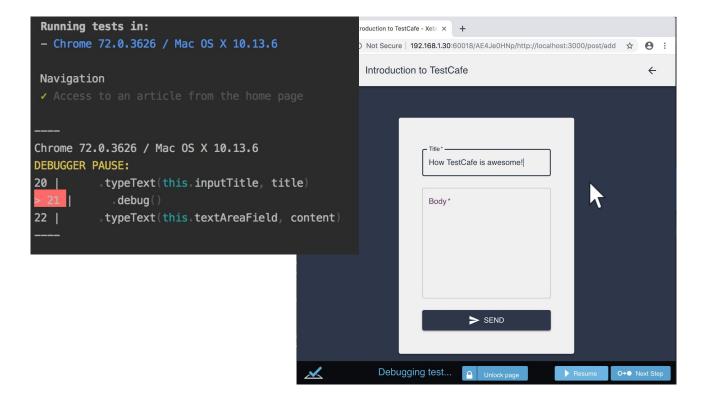
```
async submitForm(title, content) {
  await t
    .typeText(this.inputTitle, title)
    .debug()
    .typeText(this.textAreaField, content)
    .click(this.submitBtn);
}
```







## | Debugging



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## Debugging with screenshots on fails

testcafe chrome e2e/\*\*/\* --screenshots
./screenshots --screenshots-on-fails

Xebia Introduction to TestCafe	<b>←</b>
Title *	
Body*	
➤ SEND	_

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## | Debugging with videos

- testcafe chrome e2e/\*\*/\* --video videos
- testcafe chrome e2e/\*\*/\* --video videos
  --video-options
  singleFile=true,failedOnly=true

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## **Running tests**







## | Browsers support: installed browsers

- Most of modern browsers locally installed can be detected:
  - Google Chrome: Stable, Beta, Dev and Canary
  - Internet Explorer (11+)
  - Microsoft Edge
  - Mozilla Firefox
  - Safari
  - Android browser
  - Safari mobile
- Run testcafe --list-browsers to list which browsers TestCafe automatically detects

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## | Browsers support: remote device

- To run tests on a remote mobile and desktop device, this device must have network access to the TestCafe server.
- testcafe remote e2e/\*\*/\*
- testcafe remote e2e/\*\*/\* --qr-code



```
① 192.168.1.30:65494/0 ②
           Introduction to
Xebia
           TestCafe
    How TestCafe is awesome!
    Bla Bli Blou
```

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#### | Browsers support: chrome device emulation

- → To do this, use the emulation browser parameter.
- Specify the target device with the device parameter.

testcafe
"chrome:emulation:device=iphone
6/7/8" e2e/\*\*/\* --video
artifacts/videos



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#### Browsers support: cloud testing services

- ✓ TestCafe allows you to use browsers from cloud testing services.
- → The following plugins for cloud services are currently provided by the TestCafe team.
  - Sauce Labs: plugin
  - BrowserStack: plugin
- ∠ You can also create your own plugin: see the doc

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## Some other CLI options

Concurrent test execution:

```
testcafe -c 2 chrome e2e/**/*
```

∠ Speed:

```
testcafe chrome e2e/**/* --speed 0.5
```

Multiple browsers with or without headless:

```
testcafe chrome:headless,firefox e2e/**/*
```

- See the <u>documentation</u> for more options
- ∠ You can also use a <u>.testcaferc.json</u> file for the config

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## Reporters

- Reporters are plugins used to output test run reports in a certain format.
- TestCafe ships with the following reporters: spec (used by default), list, minimal, xUnit, JSON
- Here are some custom reporters developed by the community: NUnit, Slack, TeamCity
- Read the <u>documentation</u> to know more

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# **Continuous** integration







## | Prerequisites

- Remember we should run yarn start before running our tests because we target localhost: 3000 as the start webpage.
- Our goal is to test exactly the same code that will be deployed or not (depending on results).
- ∠ So we need to serve the content of build after we ran yarn build.
  - install serve package
    - yarn add --dev serve
    - add a npm script to our package.json
      - "serve:build": "serve -s build"

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## | Modify our tests to target build sources

- Build the app with yarn build
- ✓ Serve the built content in a terminal then run testcafe with headless mode in another terminal:
  - yarn serve:build
    - testcafe chrome:headless e2e/\*\*/\*







## The all in one with the appCommand

- The <u>appCommand</u> of TestCafe executes the specified shell command before running tests.
- ∠ So we can use it to serve our built instead of running the yarn serve: build manually. Add it to a npm script as follows:
  - "e2e:ci": "testcafe chrome:headless e2e/\*.js --app
    'yarn serve:build'"
- Now we're ready for <u>CircleCI</u>, if you don't have any account, create it before going to the next step

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## | Create | config.yml in | .circleci

Then commit and push

```
steps:
 - checkout
 - setup_remote_docker:
   docker_layer_caching: true
 # Download and cache dependencies
 - restore_cache:
   name: Restore Yarn Package Cache
   keys:
   - yarn-packages-{{ checksum "yarn.lock" }}
   name: Install Dependencies
   command: yarn install --frozen-lockfile
 - save_cache:
   name: Save Yarn Package Cache
   key: yarn-packages-{{ checksum "yarn.lock" }}
   paths:
   - ~/.cache/yarn
 # Build
 - deploy:
   name: Build
   command: yarn build
  # End-to-end tests
  - run:
      name: Run e2e tests
      command: yarn e2e:ci
```

version: 2.0

image: circleci/node:8-browsers
 working\_directory: /home/circleci/project

jobs: build:

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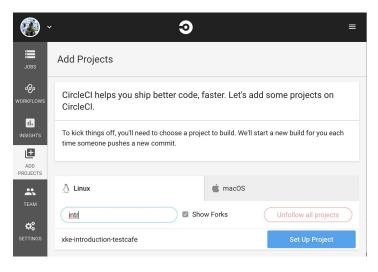






## | Add your repo to CircleCl

- On your dashboard click on "add projects" in the left bar menu
- Find your repo, then click on "Set Up Project"



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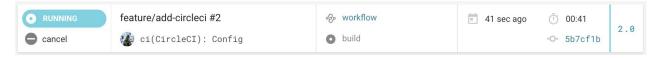


## | Start building the project on CircleCl

Start building! This will launch your project on

5. CircleCl and make our webhooks listen for updates
to your work.

You should see your project running:



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#### Detailed workflow on CircleCl

Spin up Environment	00:05
	00:00
>> Setup a remote Docker engine	00:06
> Restore Yarn Package Cache	00:00
> Install Dependencies	00:33
Save Yarn Package Cache	00:17
>> Build	00:24
	00:11

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## Our E2E tests running

```
    ♥ Run e2e tests

                                                                                                     00:11
 $ #!/bin/bash -eo pipefail
                                                                                             Exit code: 0
   yarn e2e:ci
 varn run v1.12.3
 $ testcafe chrome:headless e2e/*.js --app 'yarn serve:build'
  Running tests in:
  - HeadlessChrome 72.0.3626 / Linux 0.0.0
  Navigation
  ✓ Access to an article from the home page
  ✓ Access to the form and posting an article, coming from home
  2 passed (7s)
 Done in 11.73s.
```

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#### Use store\_test\_results

Add xunit reporter to the project:

```
yarn add --dev testcafe-reporter-xunit
```

Modify the CircleCl config:

```
# End-to-end tests
- run:
   name: Run e2e tests
   command: yarn e2e:ci
- store_test_results:
   path: /tmp/test-results
```

Modify the npm script as follows:

```
"e2e:ci": "testcafe chrome:headless e2e/*.js --app 'yarn
serve:build' -r xunit:/tmp/test-results/res.xml"
```







#### See the summary on your dashboard

Test Summary

Queue (00:01)

Artifacts

Config

Your job ran 2 tests in unknown with 0 failures

Slowest test: Navigation Access to the form and posting an article, coming from home (took 3.21 seconds).

#### Be proud! Add badges to your readme:

[![CircleCl](https://circleci.com/gh/proustibat/xke-introduction-test cafe/tree/master.svg?style=svg&circle-token=49a7ca92ed8ebbd 224600c4c57b5718c12057102)](https://circleci.com/gh/proustibat/xke-introduction-testcafe/tree/master)



[![Tested with

TestCafe](https://img.shields.io/badge/tested%20with-TestCafe 2fa4cf.svg)](https://github.com/DevExpress/testcafe)

tested with TestCafe

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#### Now CircleCl is running for each pull request

#### Feature/add circleci #2 n Open proustibat wants to merge 3 commits into master from feature/add-circleci Conversation 0 Checks 0 Files changed 4 -O- Commits 3 + \cdots ... proustibat commented a minute ago No description provided. proustibat added some commits an hour ago ci(CircleCI): Config ... ✓ 5b7cf1b ci(CircleCI): Add xunit reporter √ fc993a8 docs(Readme): Update with badges and e2e explanations ✓ 1ed1049 Add more commits by pushing to the feature/add-circleci branch on proustibat/xke-introduction-testcafe Hide all checks All checks have passed 1 successful check Details This branch has no conflicts with the base branch when rebasing Rebase and merge can be performed automatically. Rebase and merge You can also open this in GitHub Desktop or view command line instructions.



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# Features you should know it exists







#### Intercepting HTTP requests

Logging HTTP Requests

```
import { RequestLogger } from 'testcafe';
// ... < model imports and instantiations here >
const logger = RequestLogger(
 { url, method: 'get' },
 { logResponseHeaders: true, logResponseBody: true }
test
 .requestHooks(logger)
 ('Access to the form and posting an article, coming from home', async t => {
    await t.expect(
     logger.contains(r => r.response.statusCode === 200)
    ).ok();
});
```

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#### Intercepting HTTP requests

Mocking HTTP Responses

```
import { RequestLogger, RequestMock } from 'testcafe';
const collectDataGoogleAnalyticsRegExp = new
RegExp('https://www.google-analytics.com/r/collect');
const mockedResponse = Buffer.from([0x47, 0x49, 0x46, 0x38, 0x39, 0x61, 0x01, 0x00,
0x011);
const mock = RequestMock().onRequestTo(collectDataGoogleAnalyticsRegExp)
 .respond(mockedResponse, 202, {
   'content-length': mockedResponse.length,
   'content-type': 'image/gif'
});
fixture `Navigation`
 .page(url)
 .requestHooks(mock)
 .beforeEach(async t => {
   await t.click(homePage.startBtn);
   await postsPage.isPageDisplayed();
```

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## Framework-Specific Selectors

- ✓ TestCafe team and community developed libraries of dedicated selectors for the most popular frameworks. So far, the following selectors are available.
  - React
  - Angular
  - AngularJS
  - Vue
  - **Aurelia**

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Read the <u>documentation</u>







### | TestCafe Studio: cross-platform IDE

- Create, edit and maintain end-to-end tests in a visual recorder without writing code. See Record Tests.
- Generates a report with overall results and details for each test after completion.
- Code Editor with syntax highlight, code completion and parameter hints.
- Write code from scratch, convert recorded tests to JavaScript to edit them later.

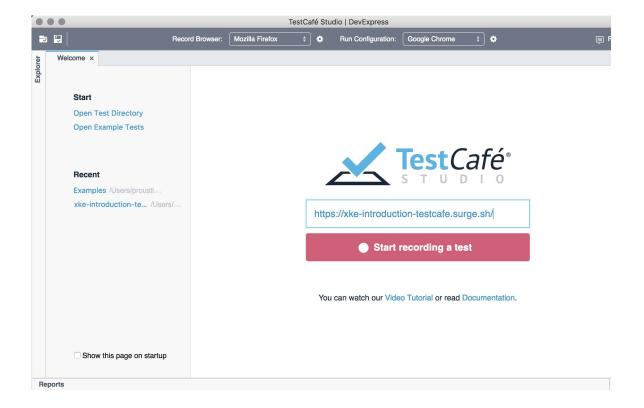
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#### | TestCafe Studio: cross-platform IDE



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#### TestCafe Studio: our first test



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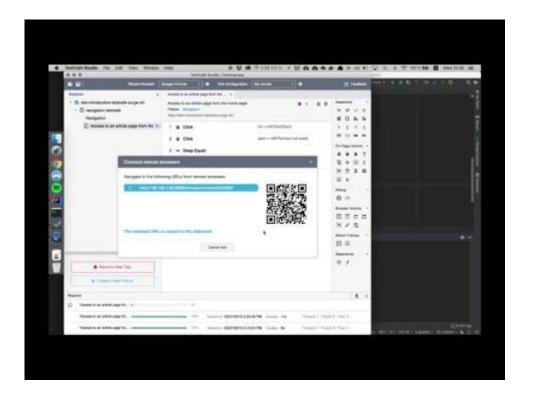
> Features







#### | TestCafe Studio: running in remote



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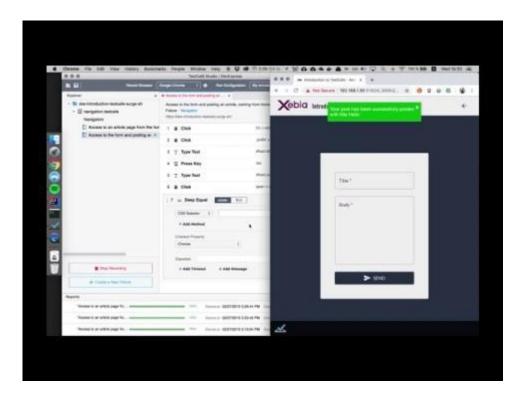
> Features







#### TestCafe Studio: our second test



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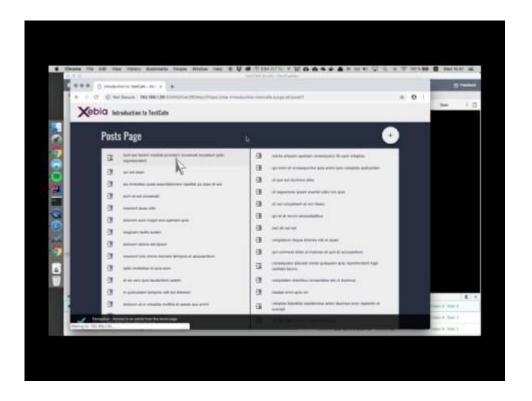
>\_Features







#### TestCafe Studio: code editor



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## Thanks!





**TestCafe Studio** 



Continue the tests by yourself: xke-introduction-testcafe



xke-introduction-testcafe.surge.sh