

# APP ACCESS



## YOU WILL LEARN

- how to access the application data stored in `localStorage`

```
// app.js
SET_TODOS(state, todos) {
  // save the todos to the local storage
  localStorage.setItem('todos', JSON.stringify(todos))
},
```

# todos

*What needs to be done?*

☐ Code the app

☐ Write the tests

2 items left

All

Active

Completed

# CHECK OUT THE BRANCH

- `git checkout e4`
- check the `localStorage` in the browser

# PLAYWRIGHT

```
// pw/local-storage.spec.js
const { test, expect } = require('@playwright/test')

// load the two todos from the "./fixtures/two-items.json" file
const todos = require('./fixtures/two-items.json')

test.describe('App', () => {
  test('stores todos in the local storage', async ({ page, request }) => {
    // reset the backend to only have those todo items
    // by making a network request to the "/reset" endpoint

    // visit the home page
    await page.goto('/')
    // there should be two items on the page

    // the local storage should have two items
  })
})
```

**Remember:** Playwright script executes in Node.js environment and sends the commands to the browser.

```
await expect(page.locator('.todo')).toHaveCount(2)
// the local storage should have two items
// under the property "todos"
// get the local storage item "todos" and parse it
// and return back to the test
// Tip: use page.evaluate to run code in the browser
const items = await page.evaluate(() => {
  return JSON.parse(localStorage.getItem('todos'))
})
expect(items).toHaveLength(2)
```

PLAYWRIGHT

> Filter (e.g. text, @tag)

Status: all Projects: chromium

1/1 passed (100%)

local-storage.spec.js

App

stores todos in th...

050ms100ms150ms200ms250ms300ms350ms400ms450ms500ms550ms600ms650ms

ActionsMetadata

Passed749ms

Before Hooks501ms

apiRequestContext.post18ms

page.goto /133ms

expect.toHaveCount locator('.todo')28ms

page.evaluate9ms

expect.toHaveLength1ms

After Hooks22ms

ActionBeforeAfter

http://localhost:3000/

todos

What needs to be done?

☐ Code the app

☐ Write the tests

2 items leftAllActiveCompleted

cypress-example-todomvc

Cypress vs Playwright course

LocatorSourceCallLogErrorsConsole4Network11Attachments

629ms

Download the Vue Devtools extension for a better development experience:

<https://github.com/vuejs/vue-devtools>

629ms

You are running Vue in development mode.

Make sure to turn on production mode when deploying for production.

2 . 3

# CYPRESS

```
// cypress/e2e/local-storage.cy.js

describe('App', () => {
  it('stores todos in the local storage', () => {
    // load todos from the fixture file "two-items.json"
    // and reset the backend to only have those todo items

    cy.visit('/')
    // there should be two items on the page

    // the local storage should have two items
    // Tip: the local storage is available under "window.localStorage"
    // and to get an item from the local storage you
    // can invoke the "getItem" method on it
    // confirm the item is a string
    // then parse it into an object
  })
})
```

**Hint:** Cypress tests run in the browser and can directly access the app's window via <https://on.cypress.io/window> command

```
// there should be two items on the page
cy.get('.todo').should('have.length', 2)
// the local storage should have two items
// Tip: the local storage is available under "window.localStorage"
// and to get an item from the local storage you
// can invoke the "getItem" method on it
cy.window()
  .its('localStorage')
  .invoke('getItem', 'todos')
  // confirm the item is a string
  // then parse it into an object
  .should('be.a', 'string')
  .then(JSON.parse)
  // which should be an array with 2 items
  .should('have.length', 2)
```

## Cypress solution



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⚙️

⇒ Specs

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⌵ ↺

local-storage.cy.js

349ms

▼ App

✓ stores todos in the local storage

▼ TEST BODY

1 request POST 200 /reset

2 visit /

3 get .todo 2

4 -assert expected [ <li.todo>, 1 more... ] to have a length of 2 2

(xhr) GET 200 /todos

5 window

6 its .localStorage

7 invoke .getItem()

8 -assert expected [{"title":"Code the app","completed":false,"id":"4092353919"}, {"title":"Write the tests","completed":false,"id":"889099912"}] to be a string

9 -assert expected [ Array(2) ] to have a length of 2

⚙️ http://localhost:3000/ Electron 114

todos

What needs to be done?

☐ Code the app

☐ Write the tests

2 items left All Active Completed

cy-vs-pw-example-todomvc

Cypress vs Playwright course



# ACCESS THE APPLICATION DATA

- Playwright can evaluate JavaScript to return a copy of the app's data from the browser
- Cypress can directly access the application's data and code



Go to the [10-ci](#) chapter