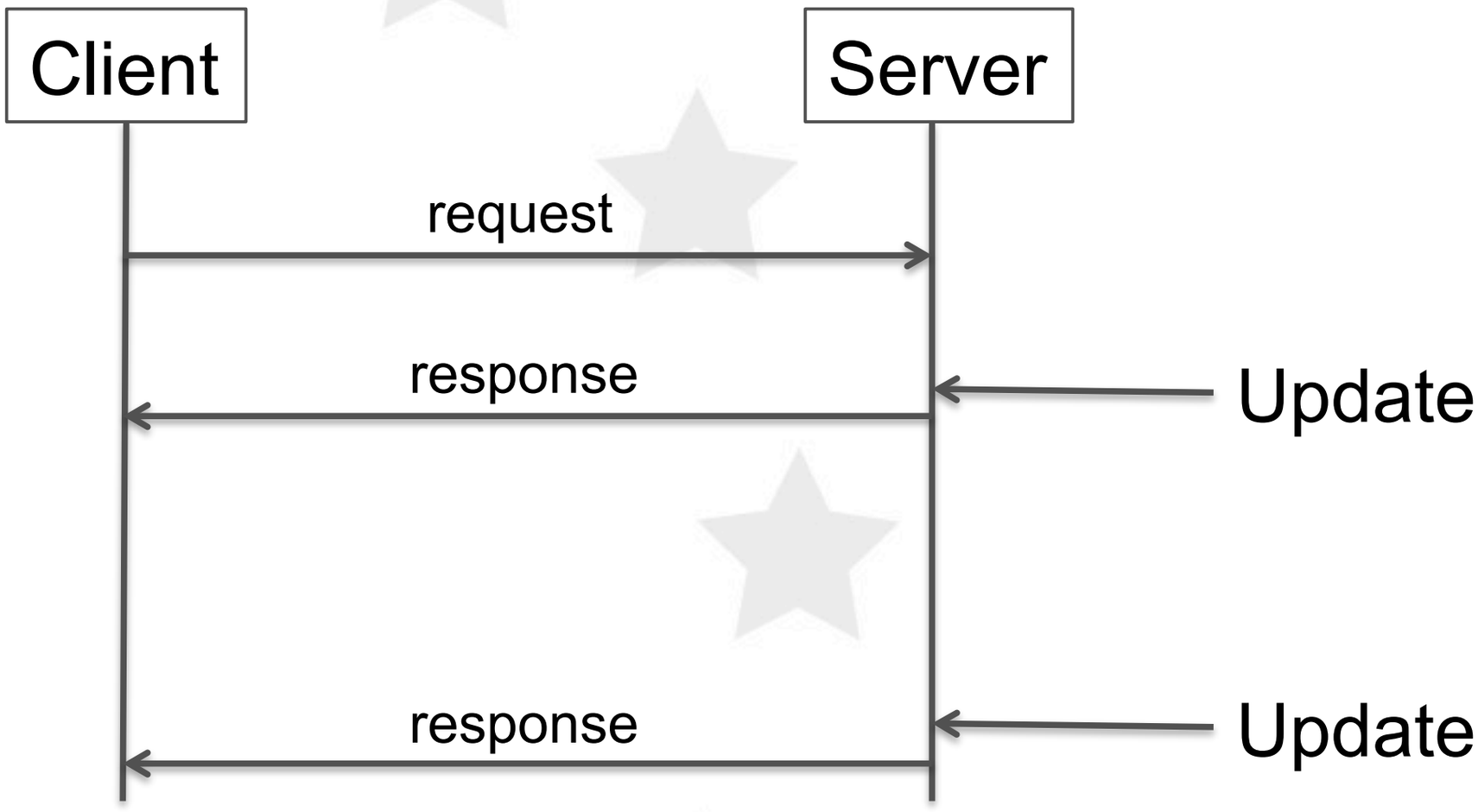
Server push data with HTML5 SSE

SUPINFO Hands-On 4

{JavaScript}

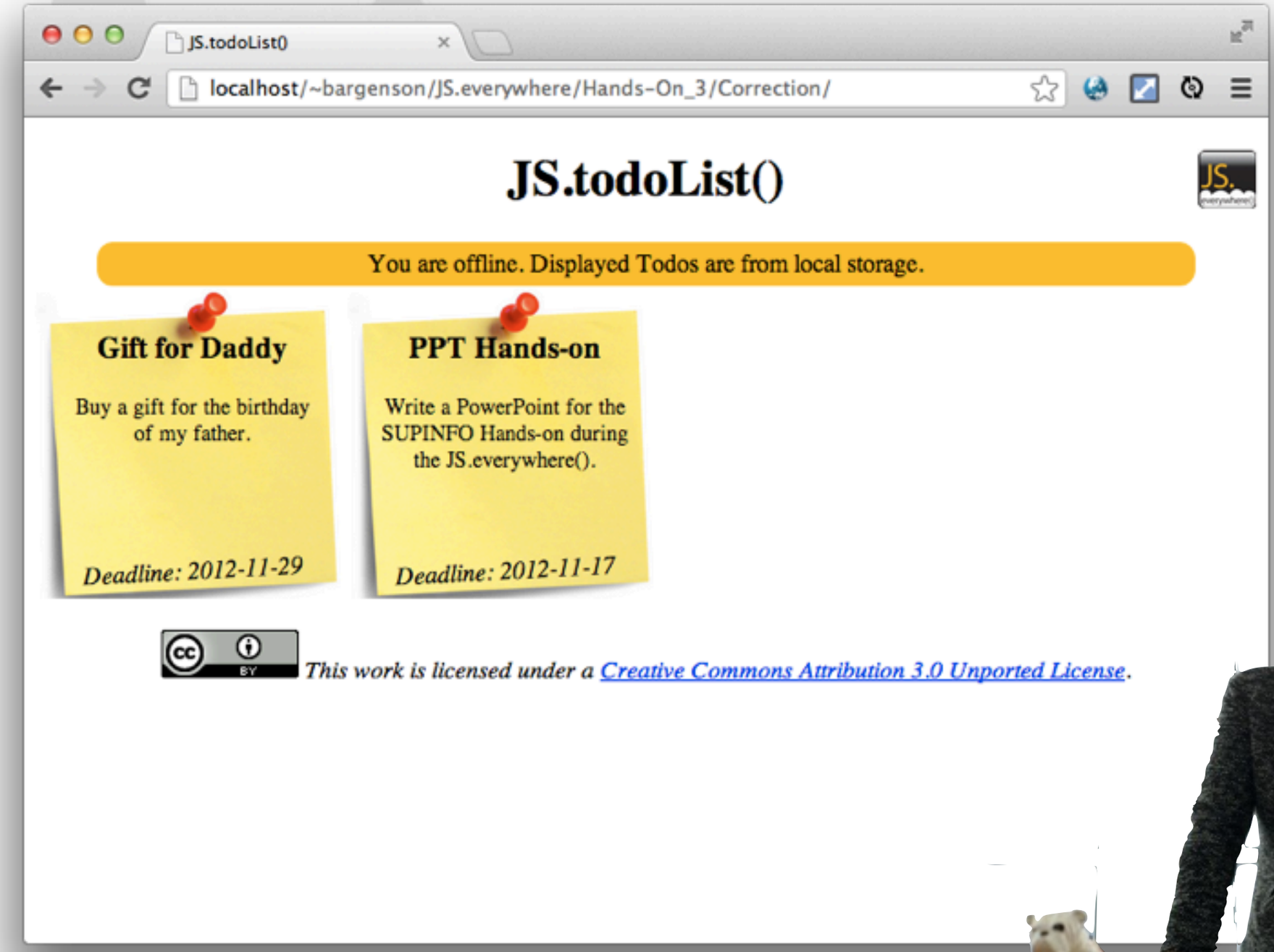
HTML5

Server Sent Event



With streaming, the browser sends a complete request, but the server maintains an open response that is continuously updated

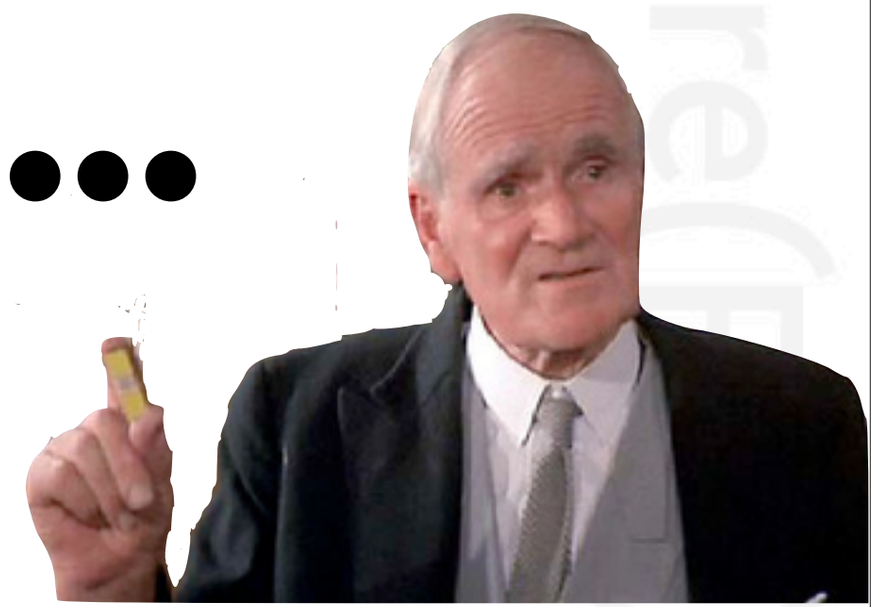
Your mission



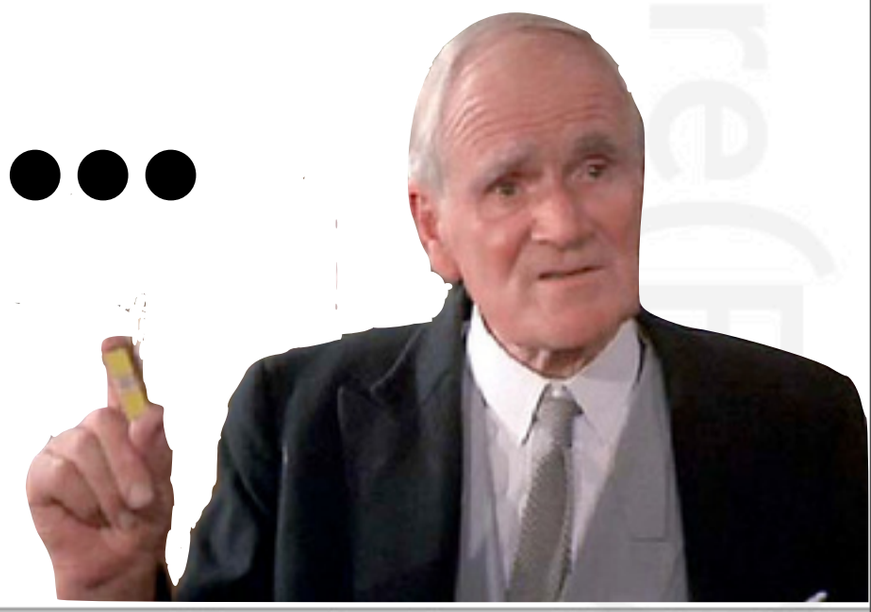
Your tools

mozilla
Firefox®

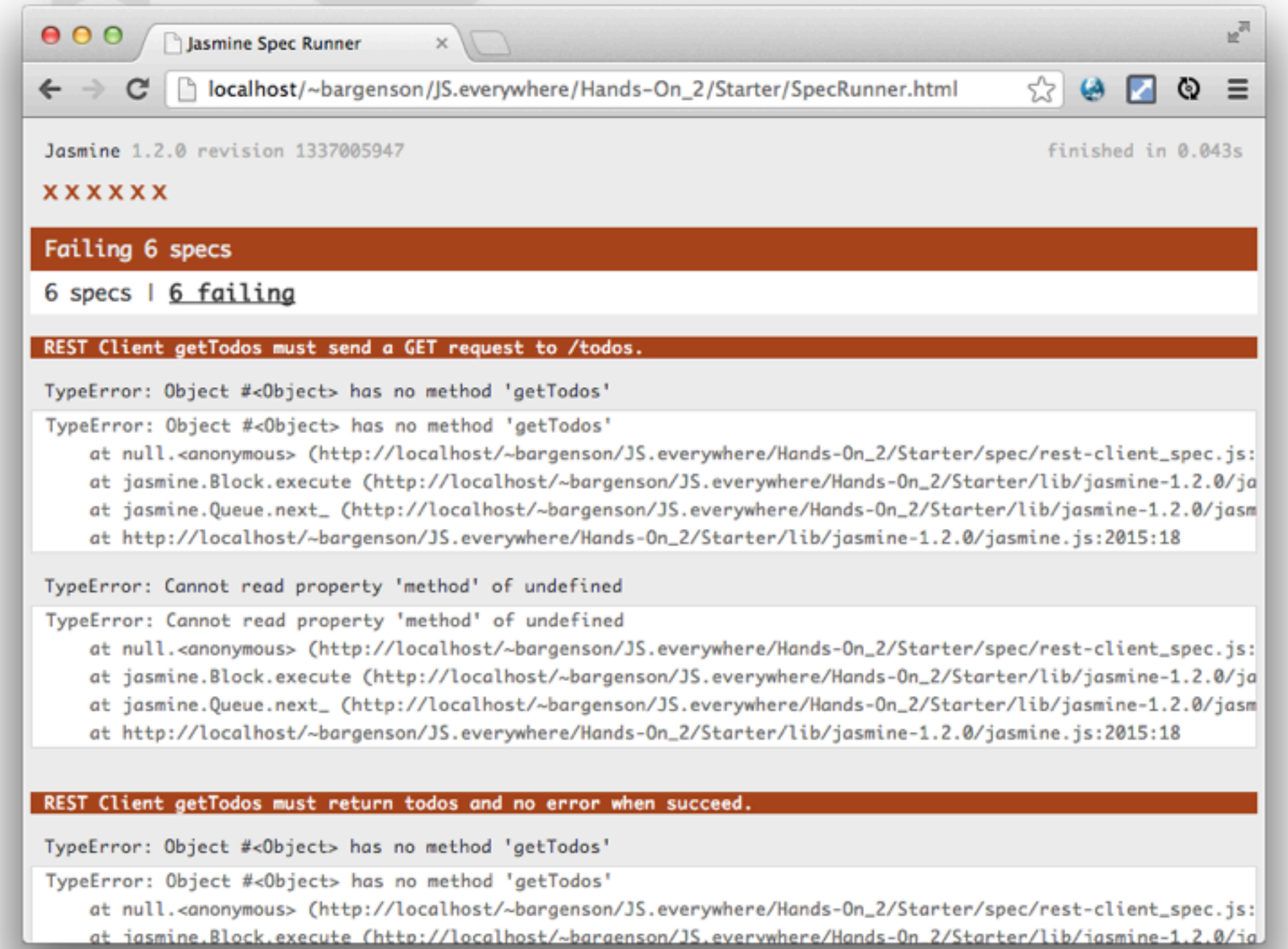
Your tools



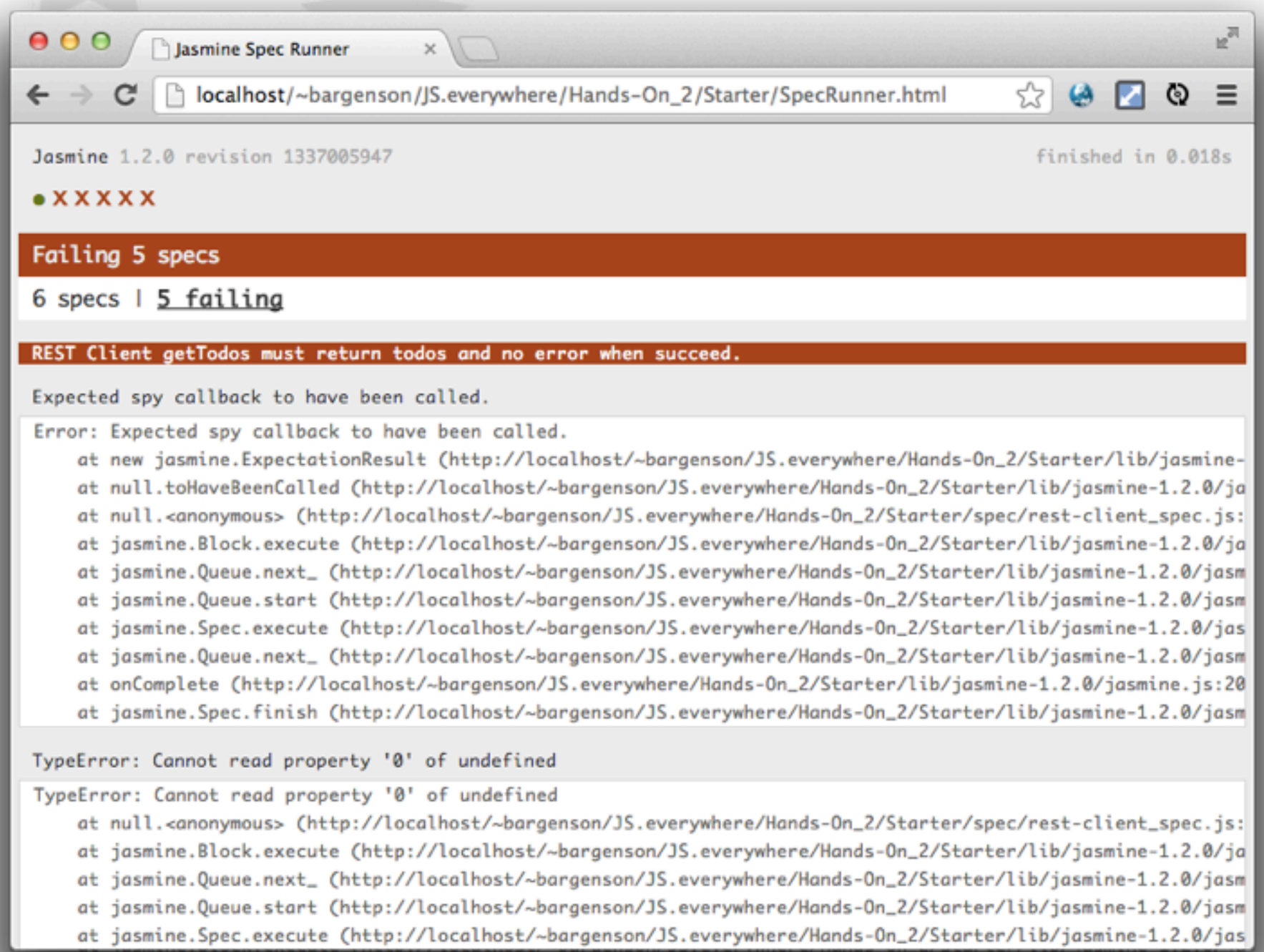
Your tools



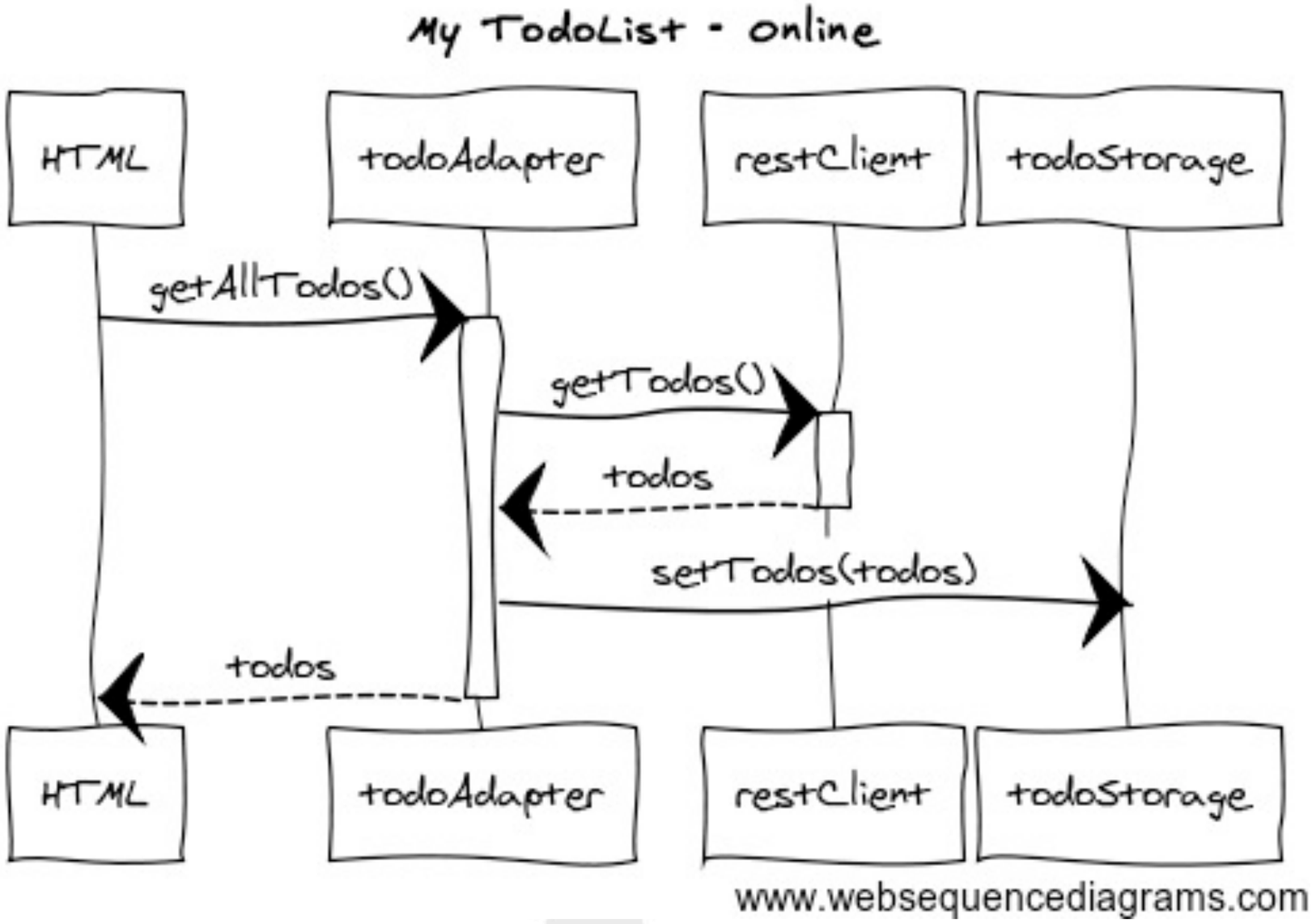
To guide you


Jasmine Spec Runner
localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/SpecRunner.html
Jasmine 1.2.0 revision 1337005947
finished in 0.043s
XXXXXX
Failing 6 specs
6 specs | 6 failing
REST Client getTodos must send a GET request to /todos.
TypeError: Object #<Object> has no method 'getTodos'
TypeError: Object #<Object> has no method 'getTodos'
at null.<anonymous> (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/spec/rest-client_spec.js:
at jasmine.Block.execute (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/ja
at jasmine.Queue.next_ (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasm
at http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasmine.js:2015:18
TypeError: Cannot read property 'method' of undefined
TypeError: Cannot read property 'method' of undefined
at null.<anonymous> (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/spec/rest-client_spec.js:
at jasmine.Block.execute (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/ja
at jasmine.Queue.next_ (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasm
at http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasmine.js:2015:18
REST Client getTodos must return todos and no error when succeed.
TypeError: Object #<Object> has no method 'getTodos'
TypeError: Object #<Object> has no method 'getTodos'
at null.<anonymous> (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/spec/rest-client_spec.js:

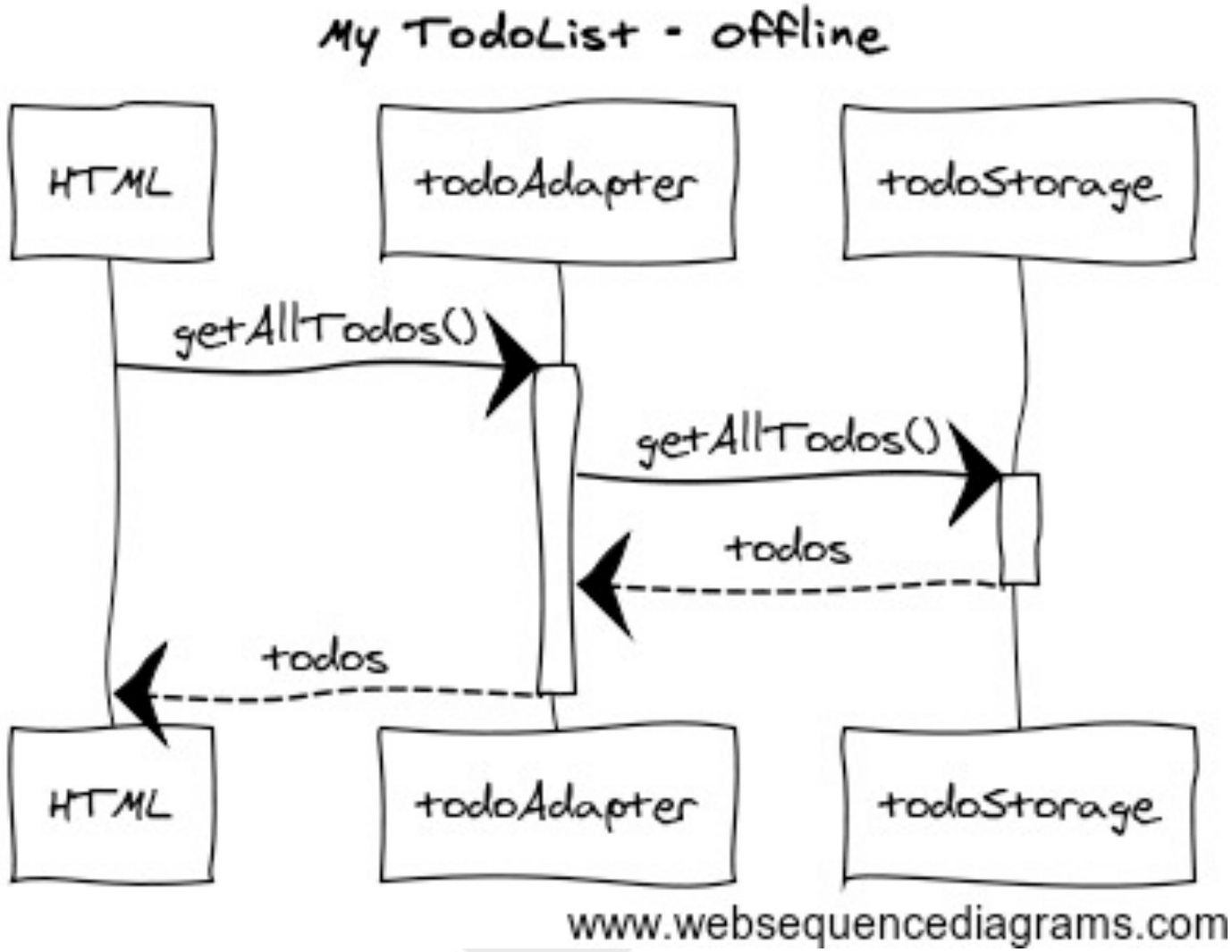
To guide you


Jasmine Spec Runner
localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/SpecRunner.html
Jasmine 1.2.0 revision 1337005947
finished in 0.018s
XXXXX
Failing 5 specs
6 specs | 5 failing
REST Client getTodos must return todos and no error when succeed.
Expected spy callback to have been called.
Error: Expected spy callback to have been called.
at new jasmine.ExpectationResult (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-
at null.toHaveBeenCalled (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/ja
at null.<anonymous> (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/spec/rest-client_spec.js:
at jasmine.Block.execute (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/ja
at jasmine.Queue.next_ (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasm
at jasmine.Queue.start (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasm
at jasmine.Spec.execute (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jas
at jasmine.Queue.next_ (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasm
at onComplete (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasmine.js:20
at jasmine.Spec.finish (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasm
TypeError: Cannot read property '0' of undefined
TypeError: Cannot read property '0' of undefined
at null.<anonymous> (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/spec/rest-client_spec.js:
at jasmine.Block.execute (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/ja
at jasmine.Queue.next_ (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasm
at jasmine.Queue.start (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jasm
at jasmine.Spec.execute (http://localhost/~bargenson/JS.everywhere/Hands-On_2/Starter/lib/jasmine-1.2.0/jas

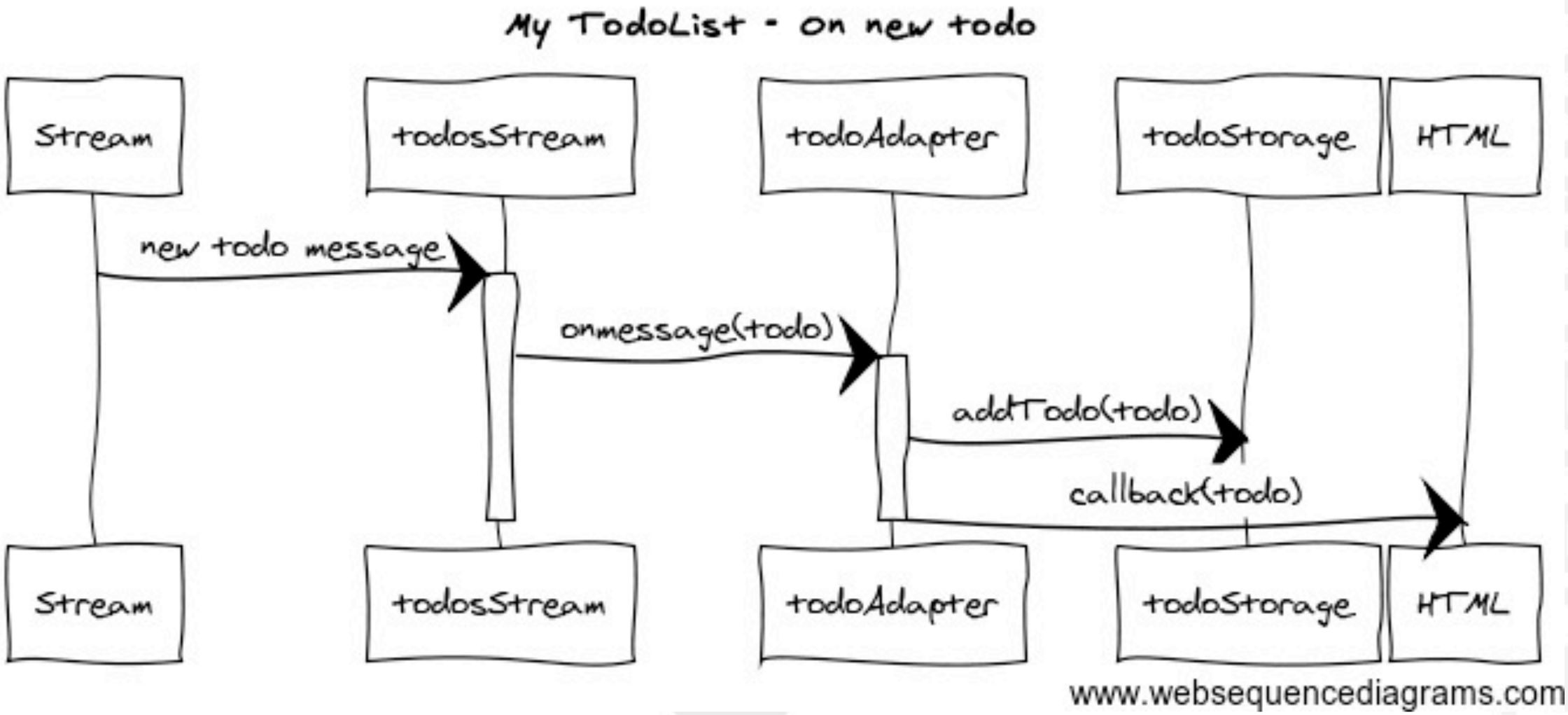
Design


My TodoList - online
HTML
todoAdapter
restClient
todoStorage
getAllTodos()
getTodos()
todos
setTodos(todos)
todos
HTML
todoAdapter
restClient
todoStorage
www.websequencediagrams.com

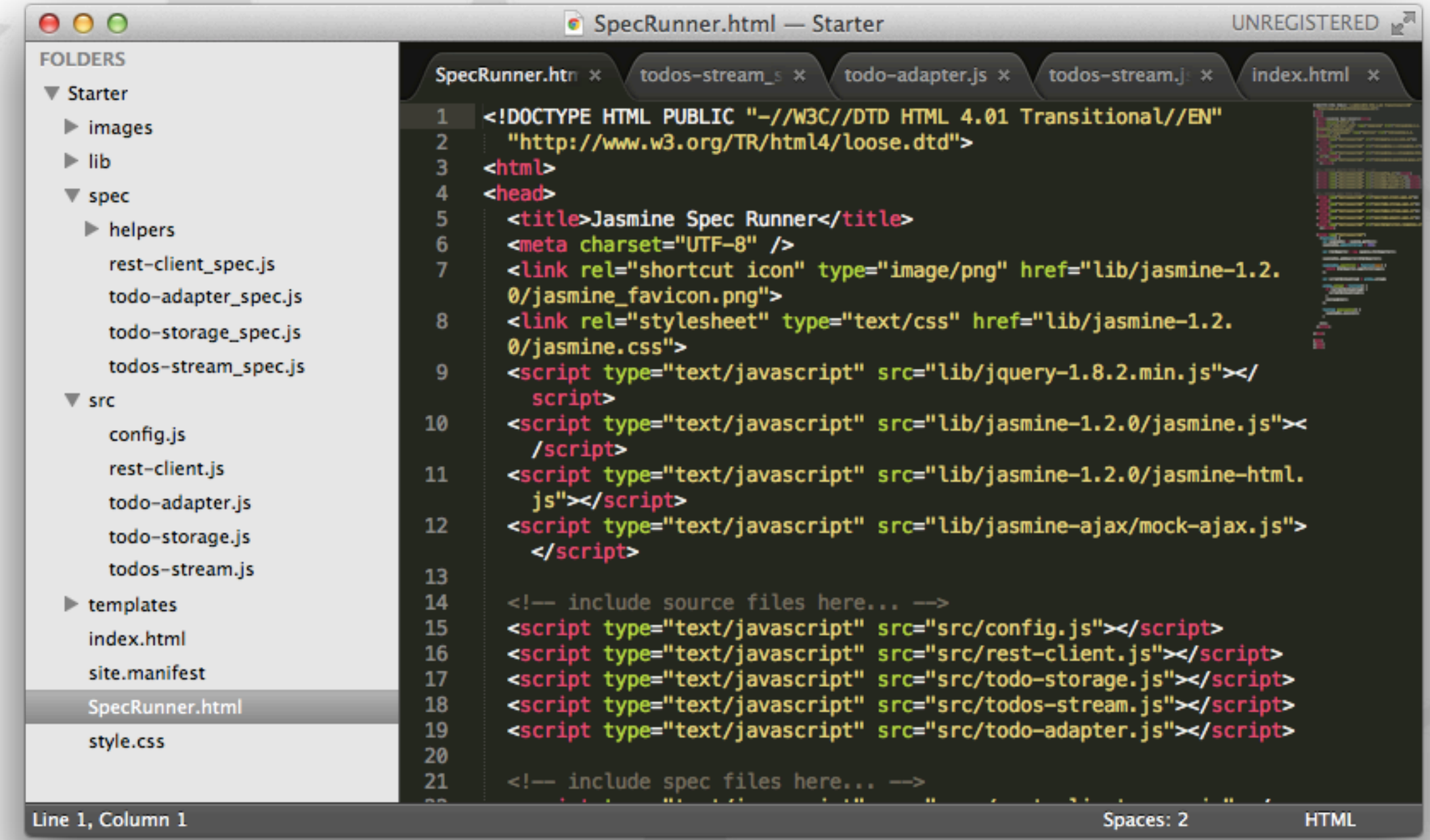
Design


My TodoList - offline
HTML
todoAdapter
todoStorage
getAllTodos()
getAllTodos()
todos
todos
HTML
todoAdapter
todoStorage
www.websequencediagrams.com

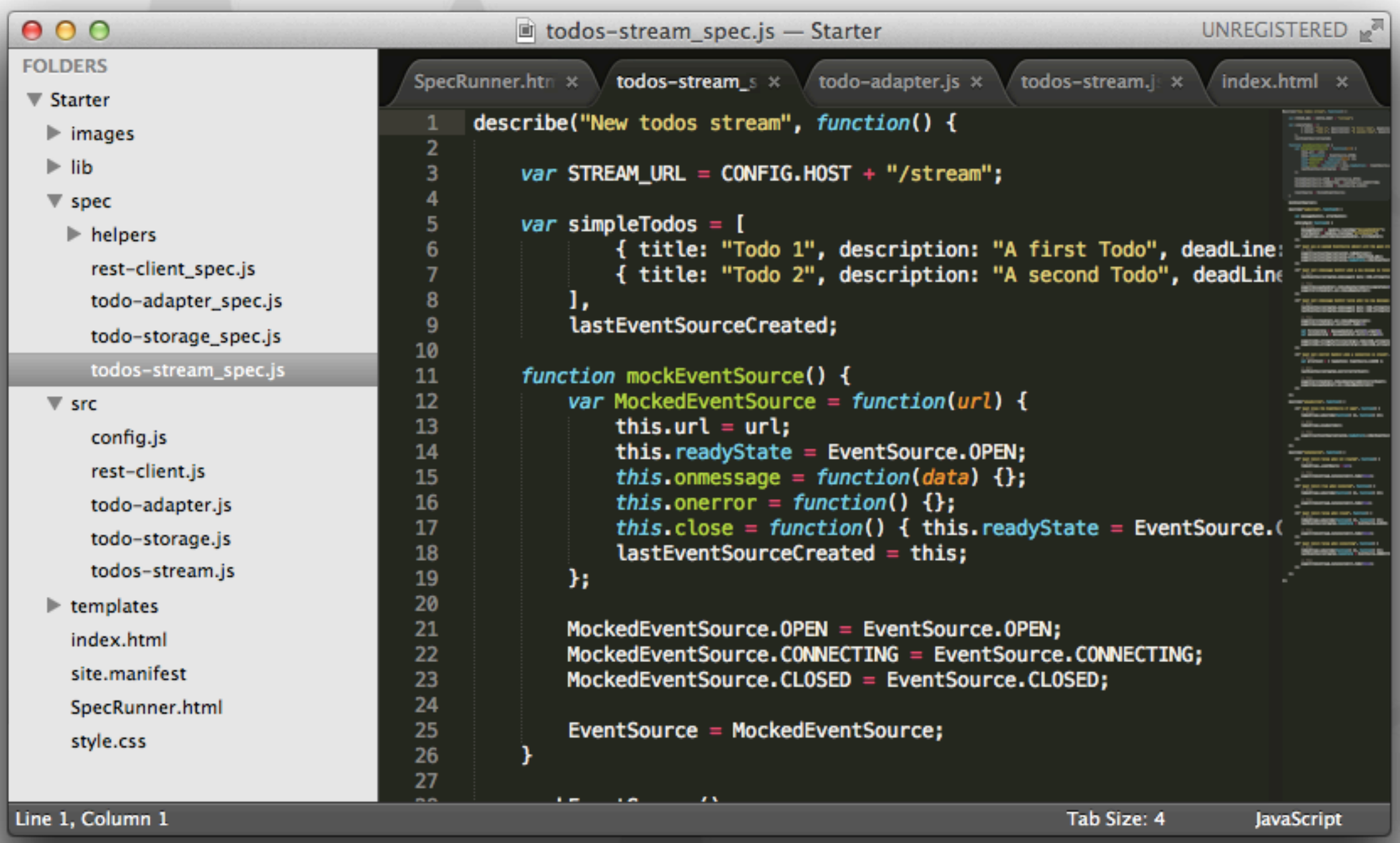
Design


My TodoList - on new todo
Stream
todosStream
todoAdapter
todoStorage
HTML
new todo message
onmessage(todo)
addTodo(todo)
callback(todo)
Stream
todosStream
todoAdapter
todoStorage
HTML
www.websequencediagrams.com

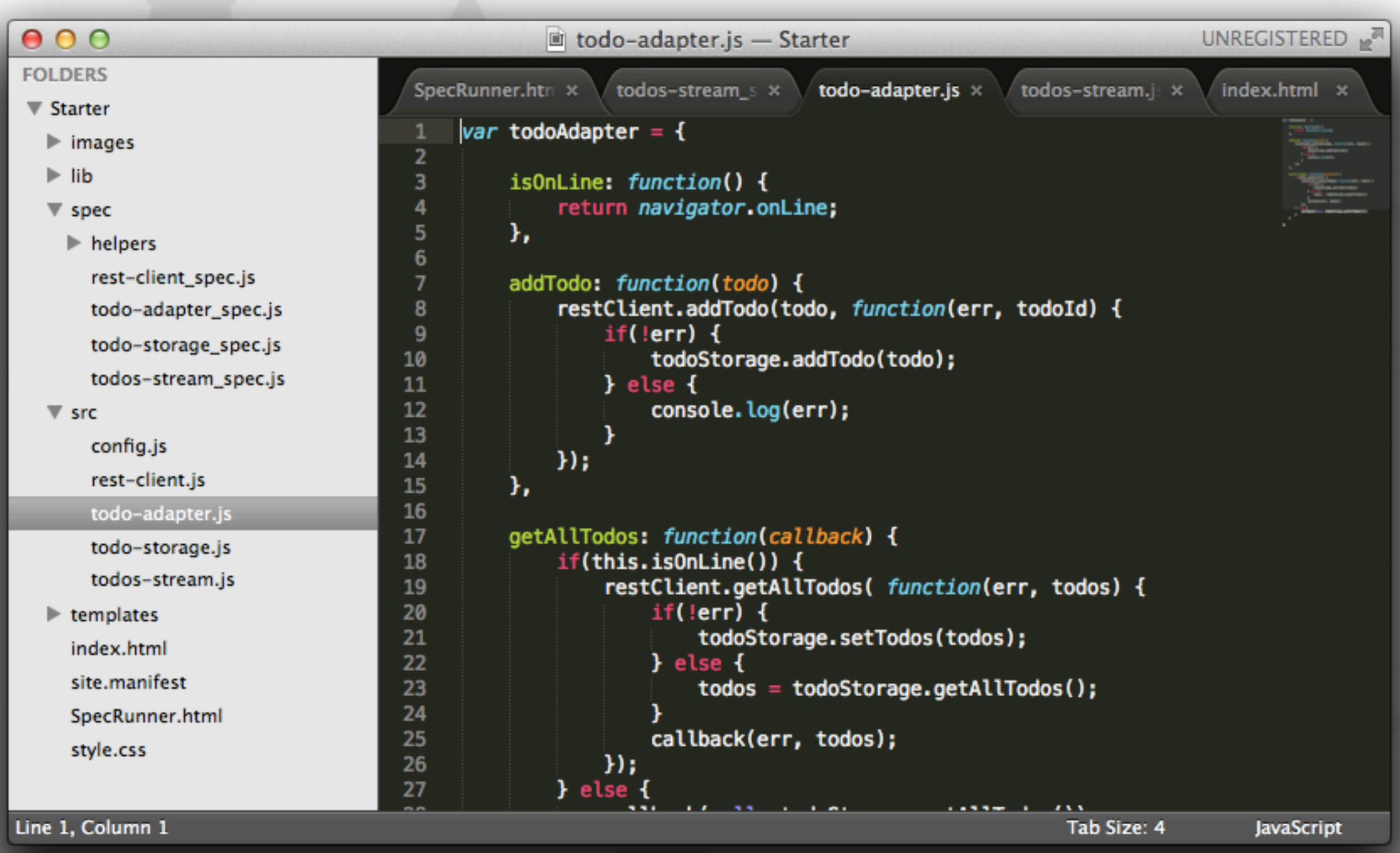
Project Skeleton



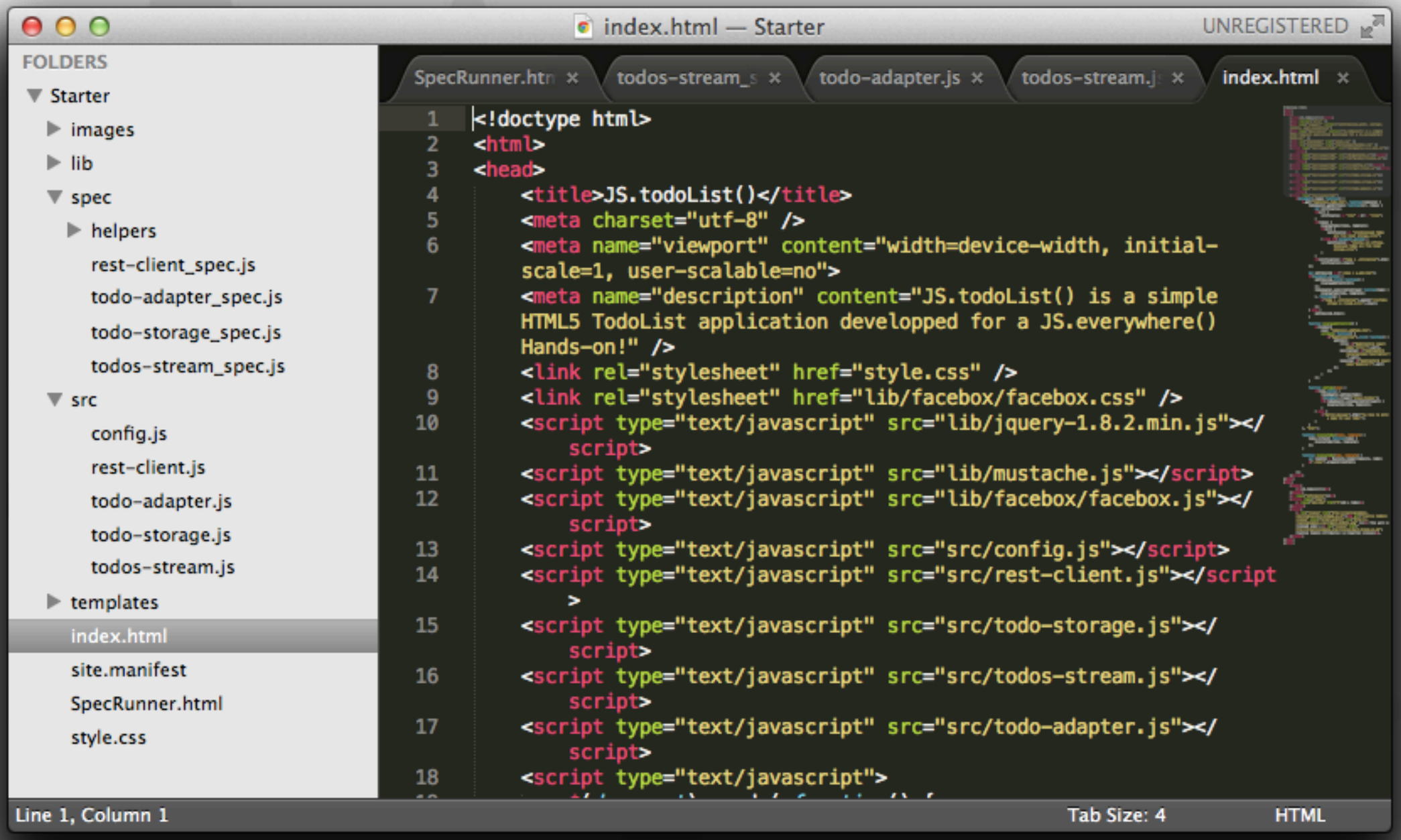
Project Skeleton



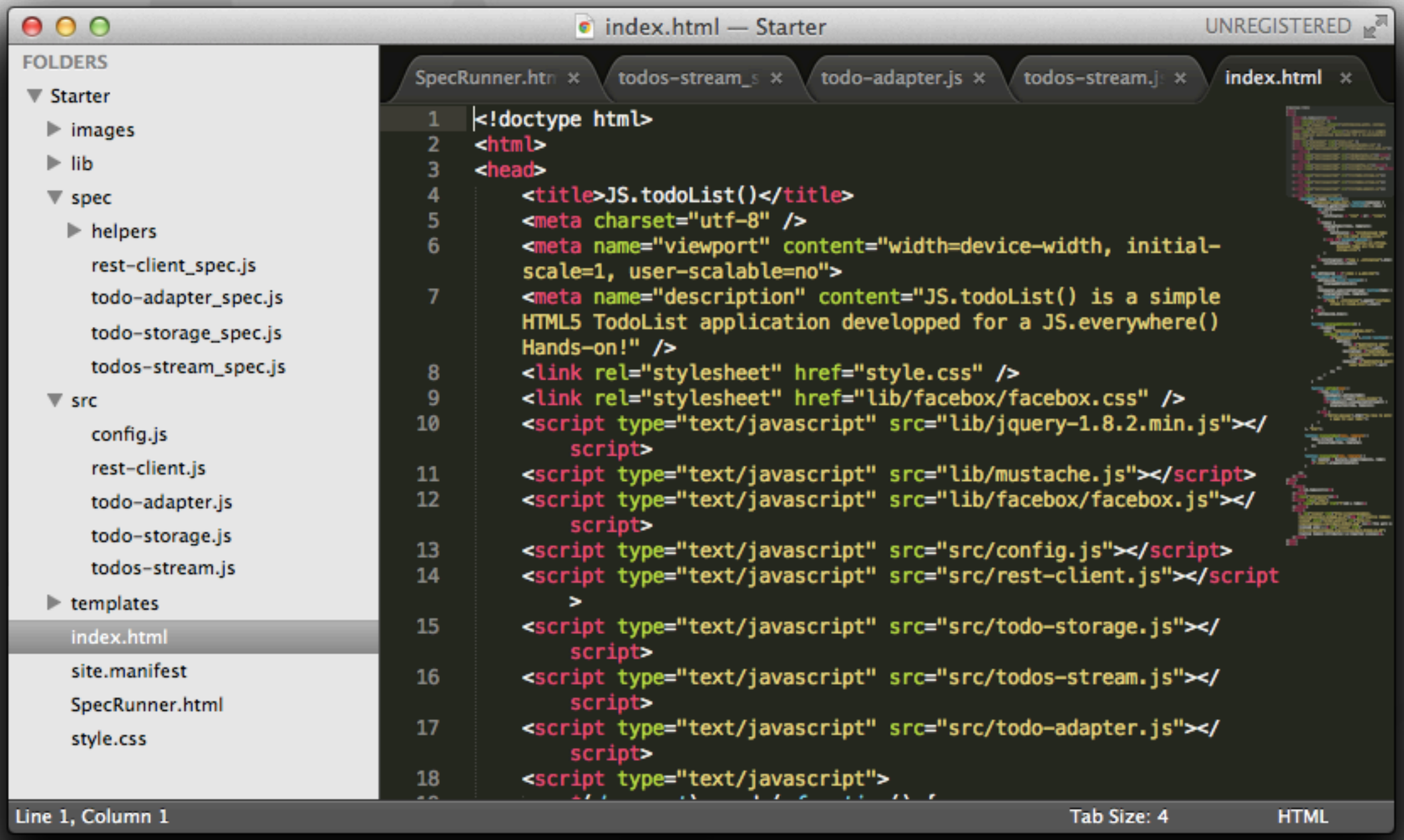
Project Skeleton



Project Skeleton



Project Skeleton



The Web API

http://<MY-IP-ADDRESS>:3000/

- GET /todos
  - Return all todos
- POST /todos
  - Create a new todo
- GET /stream
  - New todos stream

Resources

- About Server Sent Event:

  https://developer.mozilla.org/en-US/docs/Server-sent_events/Using_server-sent_events

- About localStorage:

  https://developer.mozilla.org/en-US/docs/DOM/Storage

For the fastest ones

- Add the Meta Viewport and test it with a Mobile Browser (Opera Mobile Emulator)

http://dev.opera.com/articles/view/an-introduction-to-meta-viewport-and-viewport/

- Make your code modular and use RequireJS !

Need help ?

- If you are stuck or have any questions:
  - Renaud
  - Marc
  - Adrien
  - And me (Brice)

Questions ?

Download the project !