

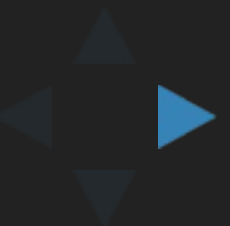
BEST PRACTICES

ASYNCHRONOUS SERVER TECHNOLOGIES

César Berezowski

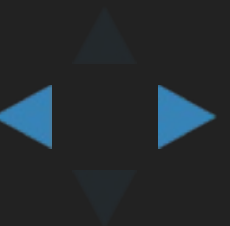
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RECAP

- Tools & concepts for web development
 - Terminal & Vim
 - Client / sever concepts
 - IP/HTTP protocol & security + SSH
 - Git & Github
 - ...
- What's JS, NodeJS & NPM ?
- What's a package ? How is it made ?
- First script & module



YOUR PROJECT

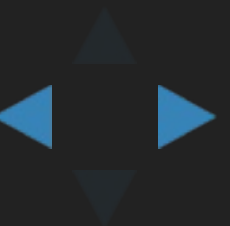
- Basic project on github :

```
myproject/  
|-- .gitignore  
|-- package.json  
|-- readme.md  
+-- src/  
    |-- app.js  
    +-- users.js
```

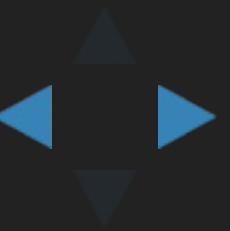


FINAL PROJECT

- Based on code from class
- Simple dashboard app :
 - User login
 - A user can insert metrics
 - A user can retrieve his metrics in a graph
 - A user can only access his own metrics



QUESTIONS ?

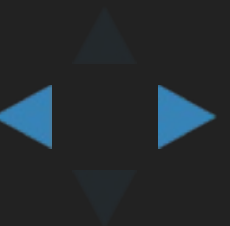


TOOLS & PROCESSES



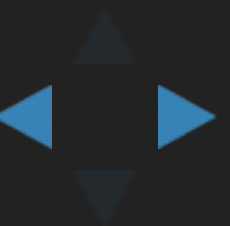
TRAVIS CI

- Continuous integration tools
- Integrated with GitHub
- `.travis.yml` file defines environment and parameters
- travis-ci.org
- Get started: docs.travis-ci.com/user/getting-started/

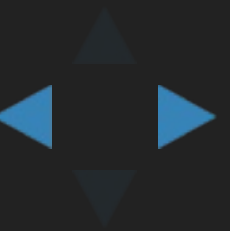


STACKOVERFLOW & MAILING LISTS

- Huge data source
- Reactive community
- Any subject
- Lots of answered questions (> 1M !)
- Don't forget the source code !



PACKAGES BEST PRACTICES



LIBRARIES

- Add using NPM / package.json
- Specify version
- Install locally / globally

```
npm i[nstall] [--save] [--save-dev] [-g] package_names
```

- Installation location: node_modules

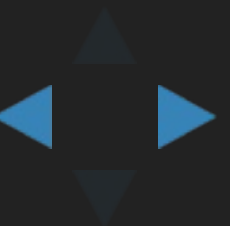


TESTS

- Two tools
 - **Mocha** - run tests and organize them with 'describe' and 'it'
 - **Should** - assertions like 'my_int.should.equal(0)'
- In `test/user.js`:

```
var should = require('should');
describe('my test series', {
  it('should do smth', function(done){...})
  it('should do smth else', function(done){...})
})
```

```
./node_modules/.bin/mocha test/user.js`
```



SCRIPTS

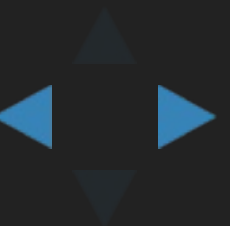
Simplify running commands

```
# in ./bin/test  
./node_modules/mocha/bin/mocha test/*
```

Prepare multiple commands

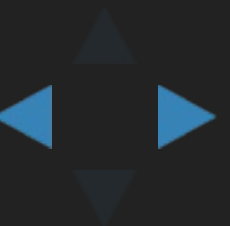
```
bin/test: ./node_modules/.bin/mocha test  
bin/start: node src/index.js  
bin/mycommand ...
```

`chmod +x bin/*` to make them executable



OTHERS

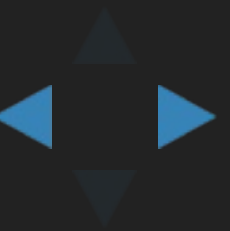
- `package.json`
- `readme.md`
- `.gitignore`
- examples
- comments (intelligently, when necessary !)
- organize your code !



QUESTIONS ?



PRACTICE !



USING LAST WEEK'S CODE

- Put your JS code in a `lib/` directory
- Add a `.gitignore`: ignore the `node_modules` directory
- Add a start script in a `bin/` directory
- Write tests on the `get / set` user urls in a `test/` directory
- Add a `test` script
- Add a `.travis.yml` file and plug Travis CI to your git

