FIVE

Pixel perfect UI testing: WebDriver.io and integrations
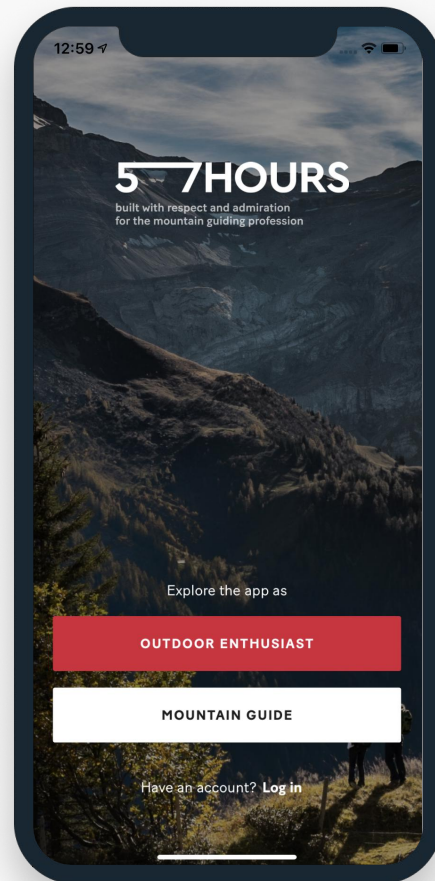
Feb, 2021

F

Content

F

About FIVE

- 2005. - FIVE

- 250+ employees

- New York, Zagreb, Osijek, Rijeka, Split

- Product discovery, design and development, growth marketing

- Products - Shoutem and 57 hours

Rosetta Stone   Marriott   napster   CONSUMERAFFAIRS

CHOICE HOTELS   CRESTRON   SQUARESPACE   GANNETT

Penguin Random House   nanit   USA TODAY   AccuWeather

F

57hours

- 57 hours - 03:00 pm (friday) - midnight (sunday)

- Outdoor activities

- Hiking, Rock Climbing, Backcountry skiing...

- Web <> Mobile

- Over 200 articles

1

UI testing

UI testing

- Making sure that visual elements of the application are displayed correctly
- Manual vs Automated UI Testing
    - Not everything can be automated
    - Automation saves time during regression testing
    - QA misses the little things after several iterations of UI testing of the same application
- Different screen sizes, browsers and operating systems
- Challenge: 57 hours application
- Lots of new incoming articles, lots of design and content updates
- Emphasis on the visual part and content, smaller amount of functionalities
- It was not only enough to verify that elements exist, it had to be verified how those elements are displayed

F

2

WebDriver.io implementation

F

Webdriver.io implementation

- Easy installation and implementation, lots of integrations
- Challenge:
  - Create a script that will open every article and scroll through in order to load content
- Execution:
  - Set required path
  - Gathered all IDs from all articles
  - Script opens every article and scrolls through in order to load content
  - Scripts exits the article and opens another one
  - Stops when it goes through every article
- Code
- Video

F

3

Percy.io integration

F

Percy.io

- Tool for visual testing
- Recognizes changes at the pixel level
- Challenge:
  - During updates of content, make sure old articles have not changed
- Execution:
  - Integrate Percy.io
  - Take screenshots of every single article once it is opened in full width
  - Push to main branch
  - Compare new screenshots with previous state
  - Recognize new changes
- Code
- Percy dashboard

F

4

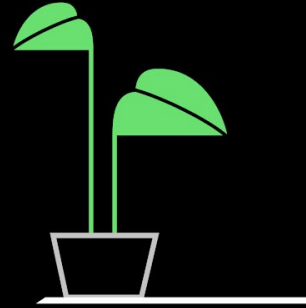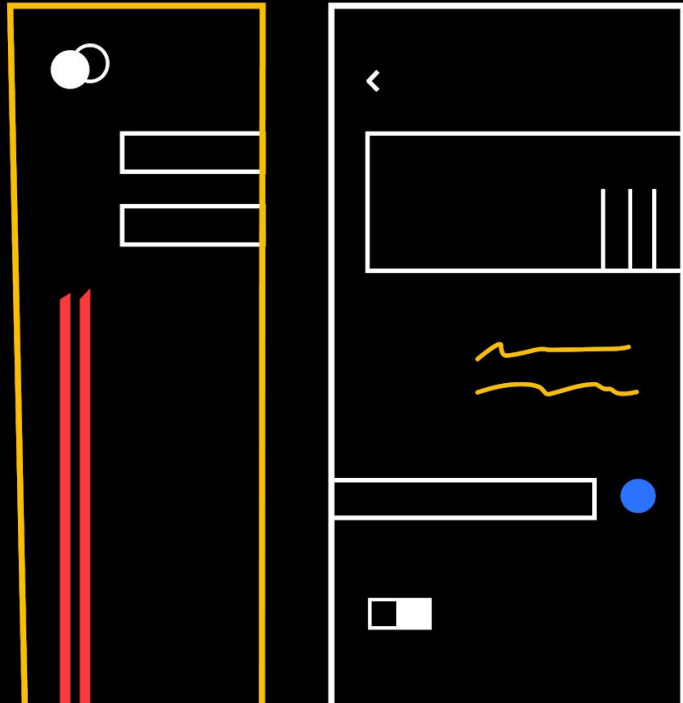Browserstack integration

F

Browserstack integration

- Software testing platform
- Allows you to test applications on different platforms, operating systems, devices...
- Challenge:
  - Make sure content is showing properly on different browsers and screen sizes
- Execution:
  - Integrate Browserstack
  - Choose on which browser, operating system and screen size you wish to run the test
  - Make sure you take screenshots from every browser and push it to main branch on Percy dashboard
- Code
- Browserstack dashboard

F

Conclusion

- UI testing is a challenging task
- Webdriver.io and integrations save time
- Easy to use
- No advanced programming knowledge required
- Future consideration
    - Adding tests to CI/CD pipeline
    - Reports integration
    - Testrail integration

F

QA Engineer wanted

...and more

Q&A

Thank you!

F