Watir

- CSM22010

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What is Watir?

- **<u>Web Application Testing In Ruby</u>**

- **Open Source** library for browser-based automated testing

- Test scripts written in Ruby programming language

- pronounced like "Water"

- At a low level, Watir works by interacting with a browser's HTML and JavaScript elements through the browser's automation interface. It leverages the browser's internal APIs to simulate user interactions and retrieve information from web pages.

What is Ruby?

- Object oriented scripting language

- interpreted rather than compiled

- written in C

  - will work on any platform that has a C compiler

Why use WATIR?

- ideal for
  - **functional** testing
  - **integration** testing (with RSpec - testing DSL written in Ruby)
- find bugs that unit tests miss
- automates what is usually a manual tedious process

Installing and Setting Up Watir

- **Install Ruby**
  - Windows 🤢
    - Download RubyInstaller (**https://rubyinstaller.org/**)
    - add to PATH
  - macOS 😅
  - Linux 🤩
    - use your package manager to install ruby
- **Install Watir gem**
  - `gem install watir`
- **Install Browser Drivers (add to PATH)**
  - chromedriver
  - geckodriver
  - msedgedriver
- **Verify Installation**

Test Framework

Test Scripts

App Specific Test DSL

WATIR Test Framework

Ruby run-time

Watir Examples

- browser.lin(:id, "lnk1").click

- browser.button(:id, "btn1").click

- browser.link(:name, "lnk1").exists?

- browser.contains_text('Welcome')

- wait_until {browser.contains_text "Edit"}

- WATIR can find elements by id, name, text, link, XPATH etc…

let's go WATIR

LIVE

Alternatives

- Selenium
  - similar open source browser automation framework
  - scripts are written in custom macro language
- Cypress
  - primarly uses JavaScript
  - offers real-time reloads
- PlayWright
  - supports mobile browsers