

# Web Development in a Nutshell

<http://tinyurl.com/webdev-nutshell>

Hector Correa  
hector\_correa@princeton.edu  
(he/him/his)

# Agenda

- What is a web application
- Client-side (HTML, CSS)
- HTTP
- Server-side (Ruby)
  - Installing Ruby
  - Server-side with Ruby
  - Sinatra views
  - Sinatra routes
  - HTTP POST / HTML FORMs
- JavaScript (optional)

Have questions? Feel free to ask them throughout the workshop.

Code of Conduct.

# What is a web application?

“A web application is software that runs in your web browser.”

Lots of technologies...



A word cloud of various web technologies and concepts. The words are arranged in a non-uniform, overlapping manner. The colors of the words include dark blue, purple, red, orange, and yellow. The words are: css, browsers, python, javascript, html, backend, java, networks, cookies, front-end, databases, web-frameworks, http, web-servers, and ruby.

css  
browsers  
python  
javascript  
html  
backend  
java  
networks  
cookies  
front-end  
databases  
web-frameworks  
http  
web-servers  
ruby

# Two sides of a web application

- **Client-side**

- Browsers know how to *render* HTML files
- HTML a text file with content

- **Server-side**

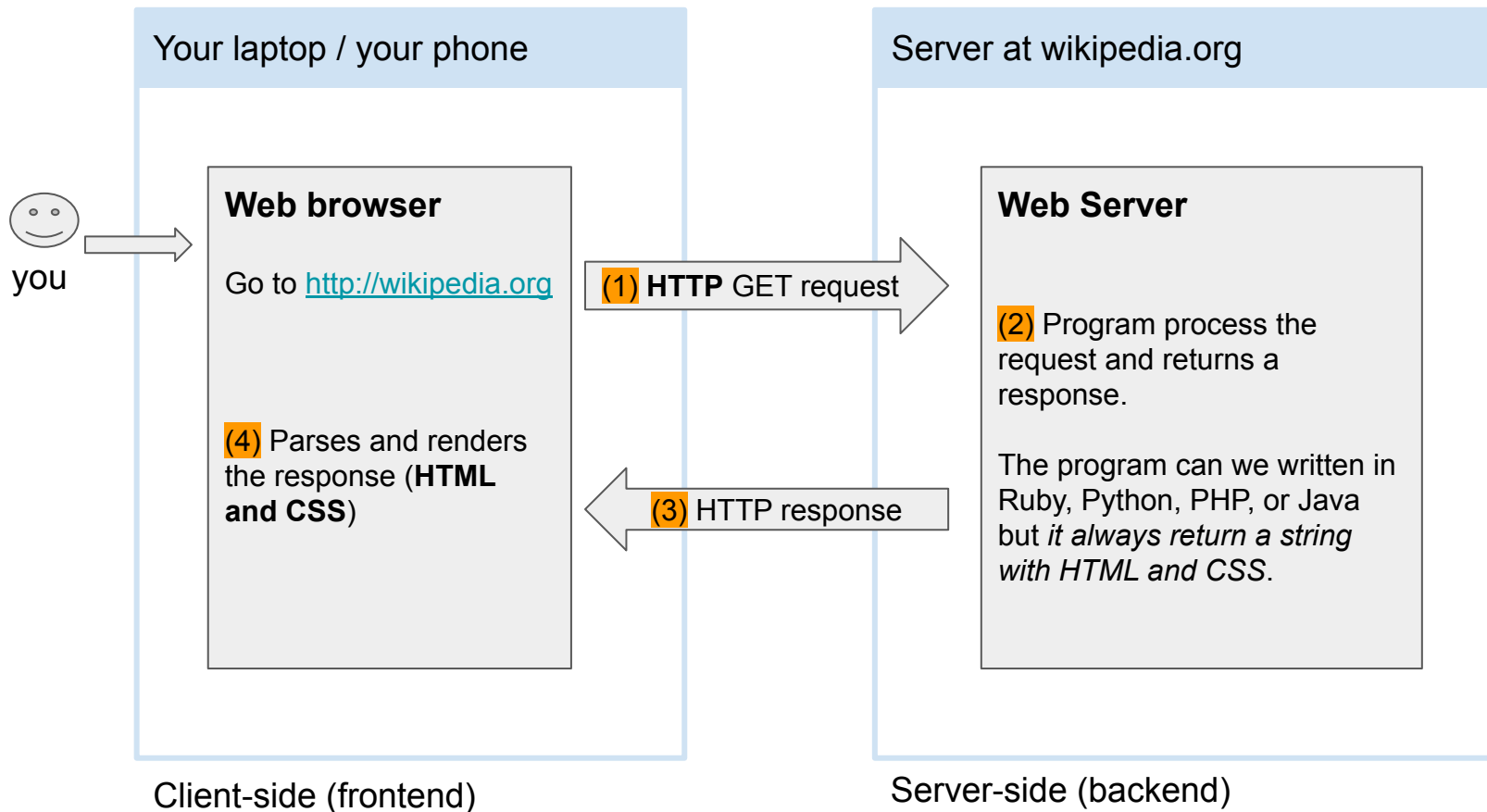
- Web servers
- *Produce* the HTML for the browser
- Backend code (Ruby, Python, PHP, Java, C#)

- **HTTP**

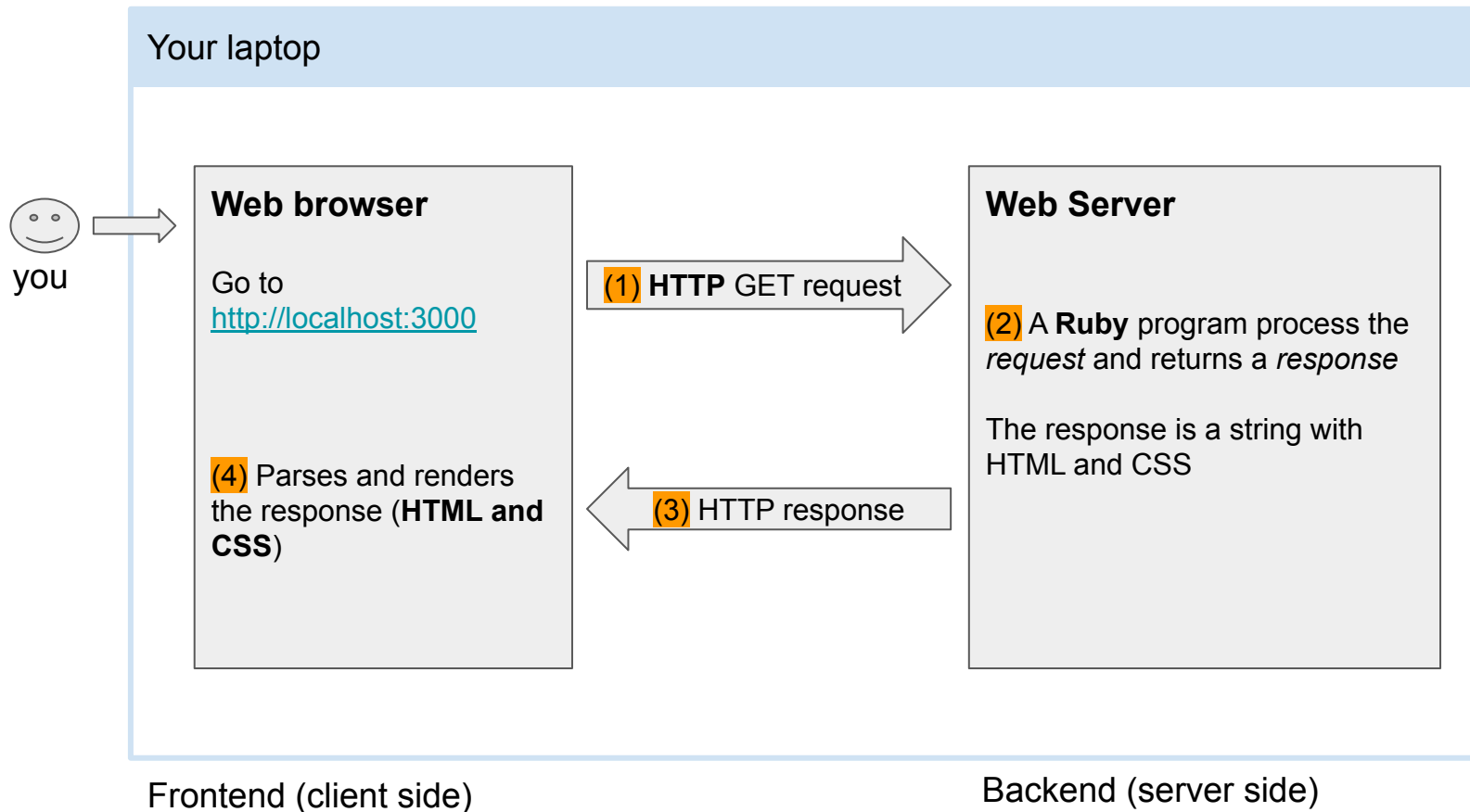
- A network protocol
- Connects the client-side with the server-side

```
<html>
  <head>
    <title>Hello</title>
  </head>
  <body>
    <h1>Hello World</h1>
    <p>This is a web page</p>
  </body>
</html>
```

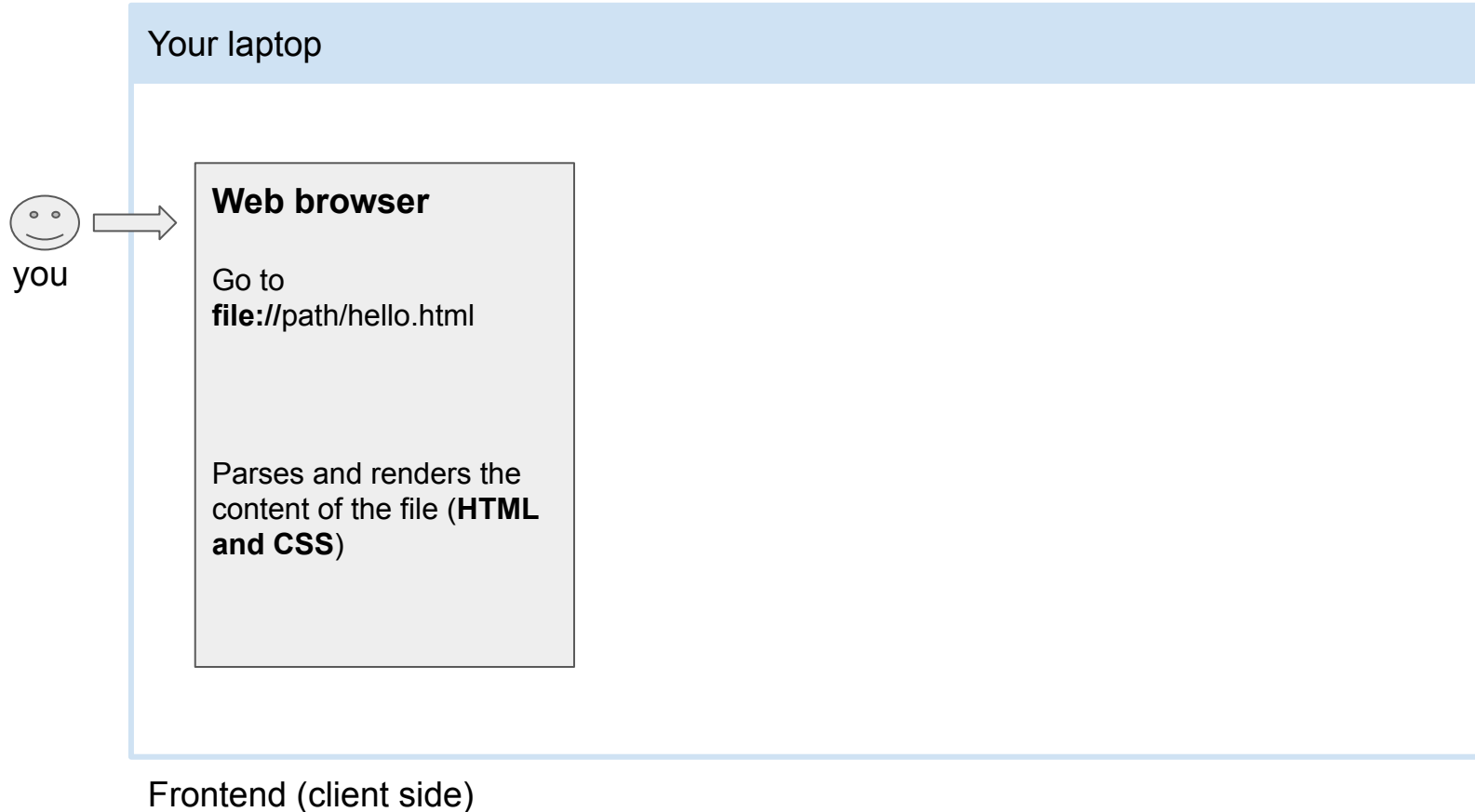
## Web development in a nutshell



## Web development in a nutshell (developer laptop edition)



## Web development in a nutshell (client-side only)





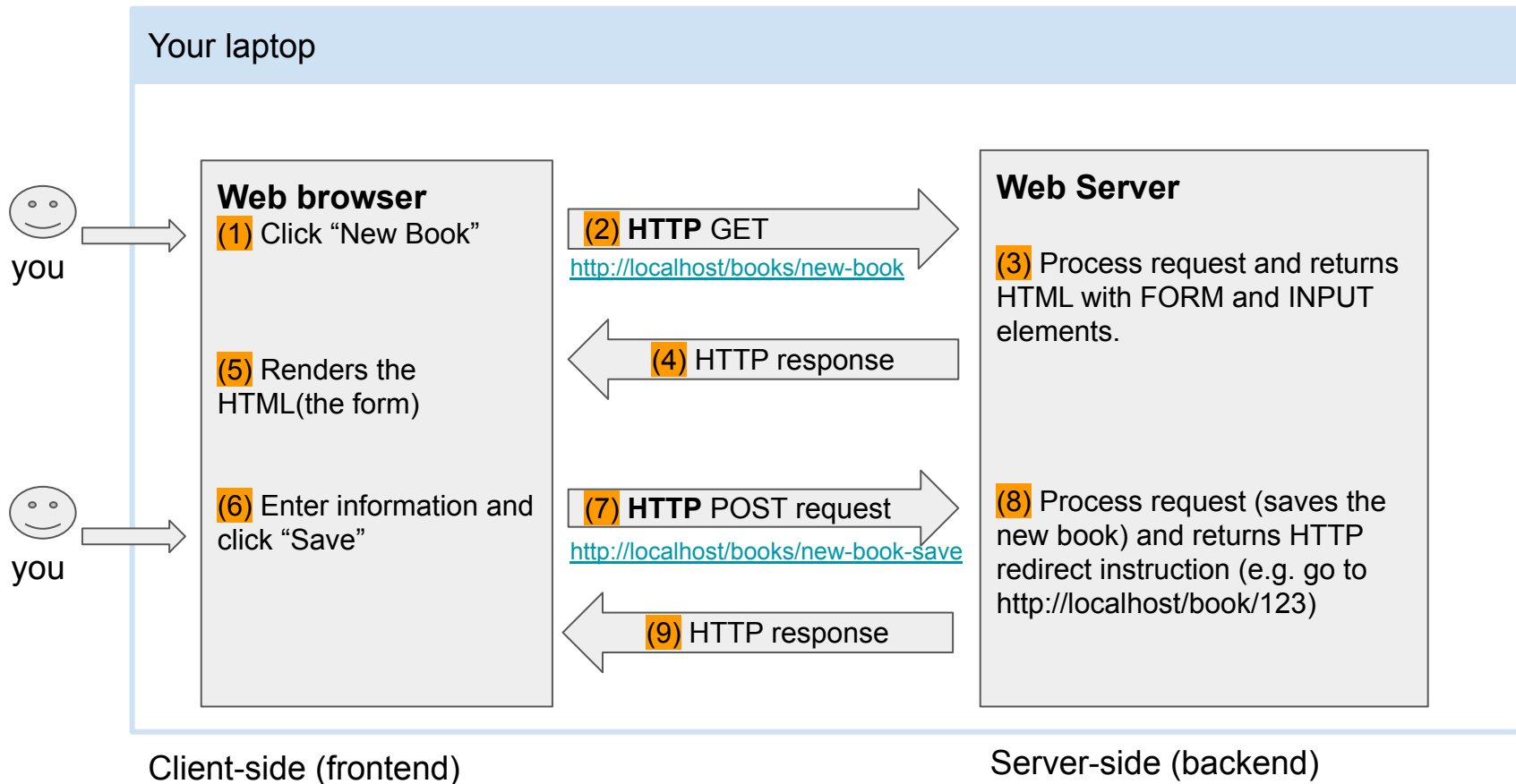
# Links for today

- [Required software](#)
- [Code examples](#)
  
- [Tutorial](#)
  - [Client-side](#)
  - [Server-side](#)
  
- [GitHub repository home page](#)

# Quiz time!

- What are the two sides of web development?
- What does the browser do?
- Where do we use Ruby?
- What do we do in Ruby?
- What about Python or PHP, where do they go?
- What is a web server?
- What is a full-stack web developer?

## Web development in a nutshell (submitting a form)



# Quiz time again!

- What are views in Sinatra?
- What are routes in Sinatra?
  - Different kind of routes
- What is an HTML FORM?
- How do we use JavaScript on the client-side?