

Visualization for the Web

Why the web??

Friends



Friends



Friends



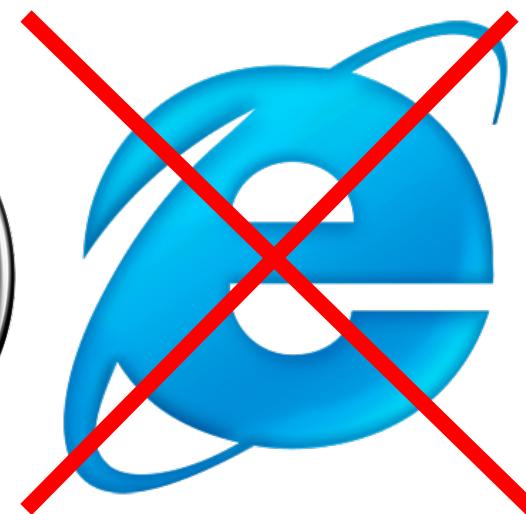
Friends



Friends



Friends



Fundamentals

HTML

CSS

JS

Fundamentals

The DOM

HTML

```
<html>

  <head>
    <meta charset="utf-8">

    <title>HTML Template</title>
    <meta name="description" content="">
    <meta name="author" content="">

    <!--[if lt IE 9]>
      <script
src="https://cdnjs.cloudflare.com/ajax/libs/html5shiv/3.7.3/ht
ml5shiv.js"></script>
    <![endif]-->
  </head>

  <body>
  </body>

</html>
```

CSS

The image shows a screenshot of a web page with a navigation bar at the top. The navigation bar includes a "Project name" section, followed by three links: "Home", "About", and "Contact". To the right of these is a "Dropdown" button with a downward arrow, which is currently open, displaying a dropdown menu. The dropdown menu contains several items: "Action", "Another action", "Something else here", a separator line, "Nav header", "Separated link", and "One more separated link". The "Action" item is highlighted with a blue color.

Project name	Home	About	Contact	Dropdown ▾
<ul style="list-style-type: none">ActionAnother actionSomething else here				
<hr/> <ul style="list-style-type: none">Nav headerSeparated linkOne more separated link				

CSS

The image shows a screenshot of a web browser displaying a navigation bar and a dropdown menu. The navigation bar includes links for 'Project name', 'Home', 'About', 'Contact', and a 'Dropdown' menu. The 'Dropdown' menu is currently open, showing four items: 'Action', 'Another action', 'Something else here', and three additional items under a separator line: 'Nav header', 'Separated link', and 'One more separated link'. A code block on the left side of the image contains the CSS rule for the navigation links.

```
.nav>li>a {  
    position: relative;  
    display: block;  
    padding: 10px 15px;  
}
```

CSS

Project name Home About Contact **Dropdown ▾**

a.dropdown-toggle | 109.23x50

- Another action
- Something else here
- Nav header
- Separated link
- One more separated link

```
.nav>li>a {  
    position: relative;  
    display: block;  
    padding: 10px 15px;  
}
```

Javascript

Javascript is a dynamic programming language that can bring interactivity to websites (and other things).

Note: It's not actually a subset of Java (it comes from ECMAScript standard, still called this sometimes (e.g., ES 6 is next)).

Also, it's everywhere.

So What Can You Do With It?

Well, pretty much anything. OK, maybe not anything,...but close.

A few examples: responses to when buttons are pressed or when data have been entered on forms, animations, games, dynamic styling,
...and so much more.

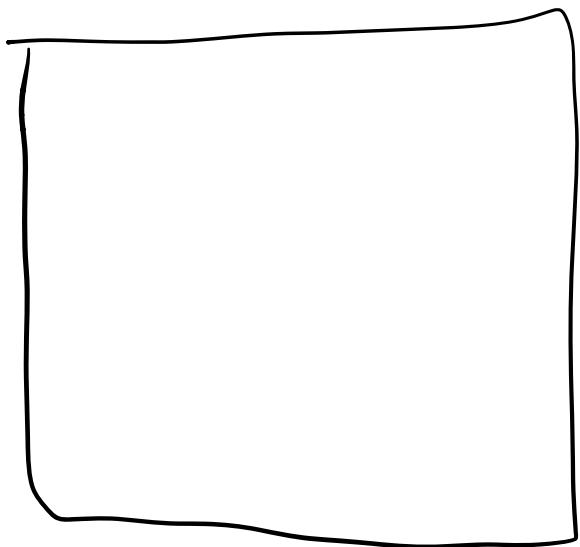
The NPM repository has 228K different packages, from webservers to package managers to “yo: CLI tool for running Yeoman generators” (npmjs.org)

Combined with Chromium Core, can even build cross-platform desktop apps!

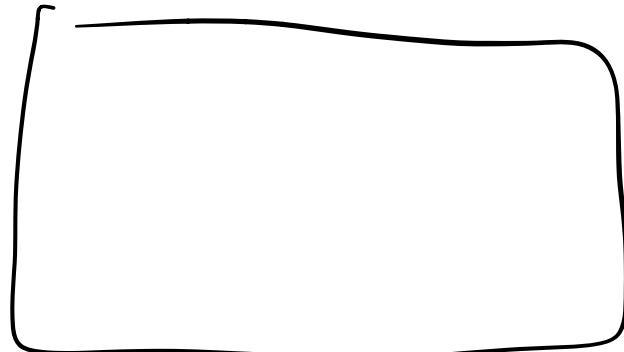
Let's Load a Web Page

...in slow motion!

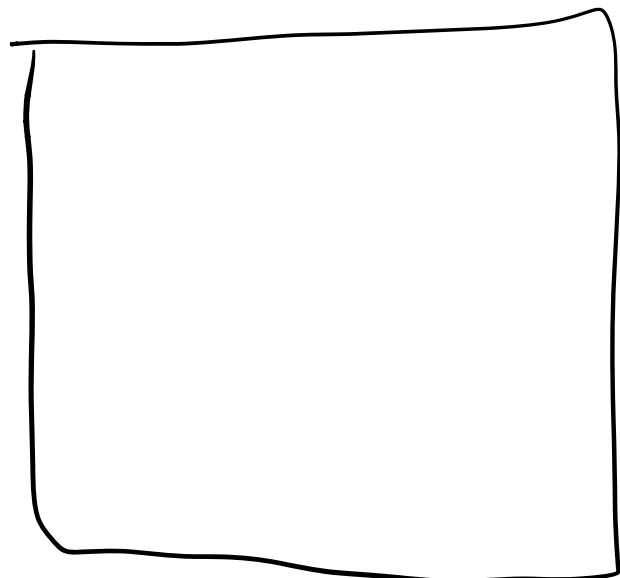
Browser



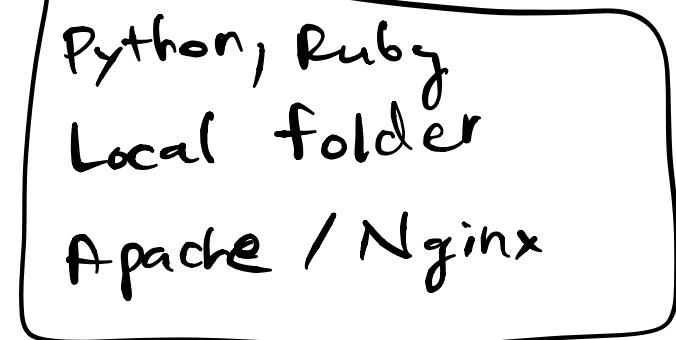
Server

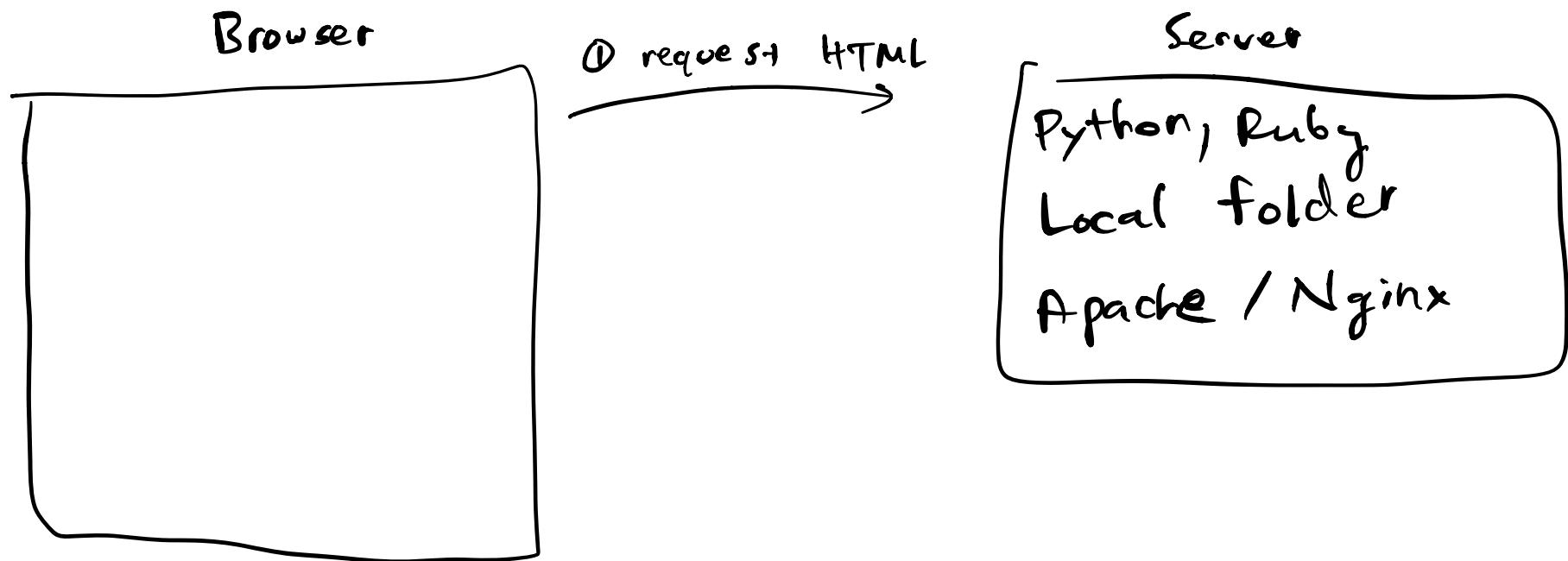


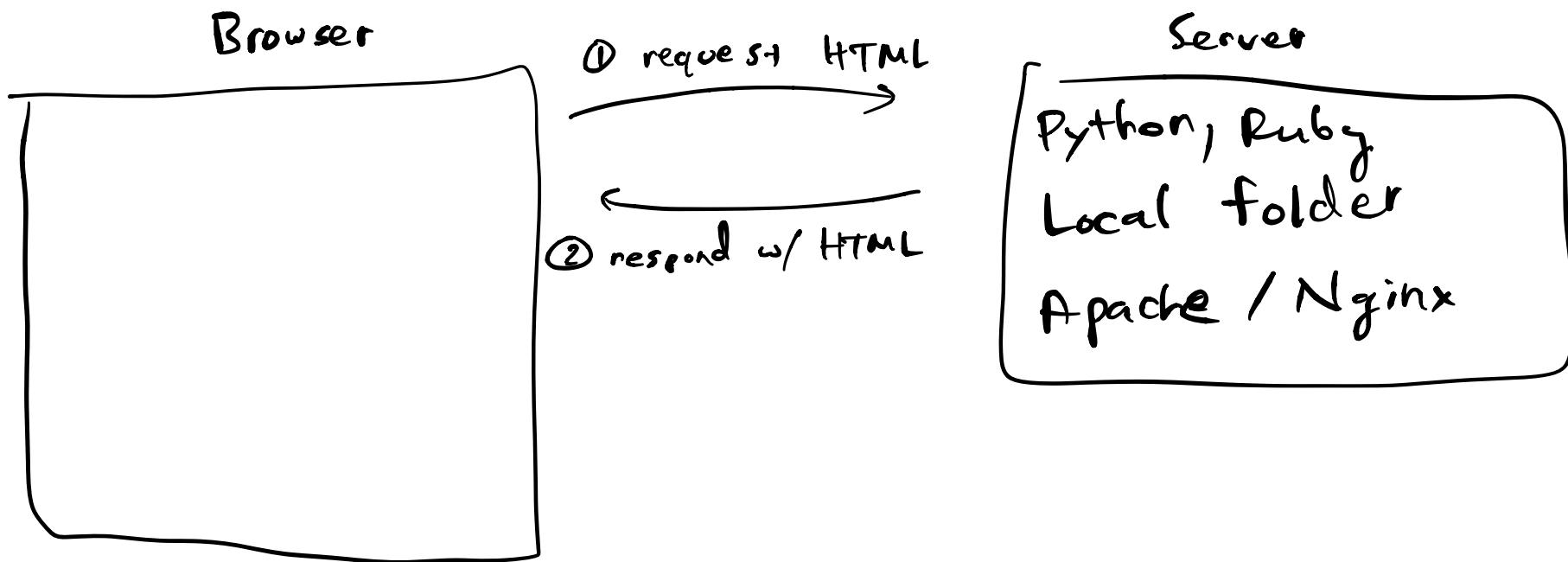
Browser

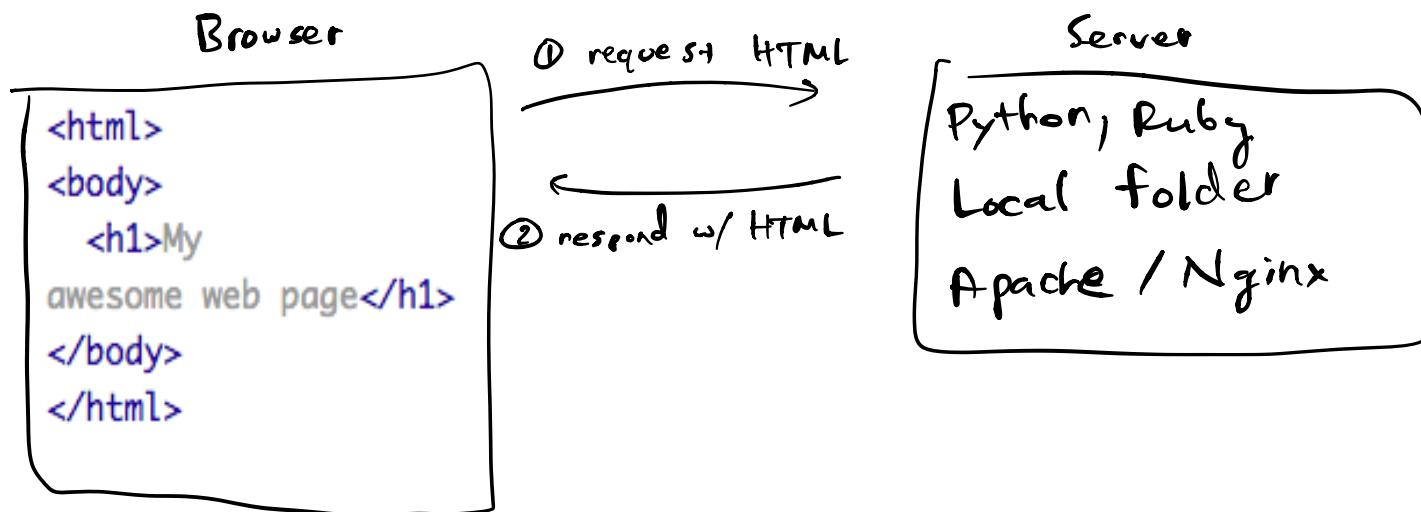


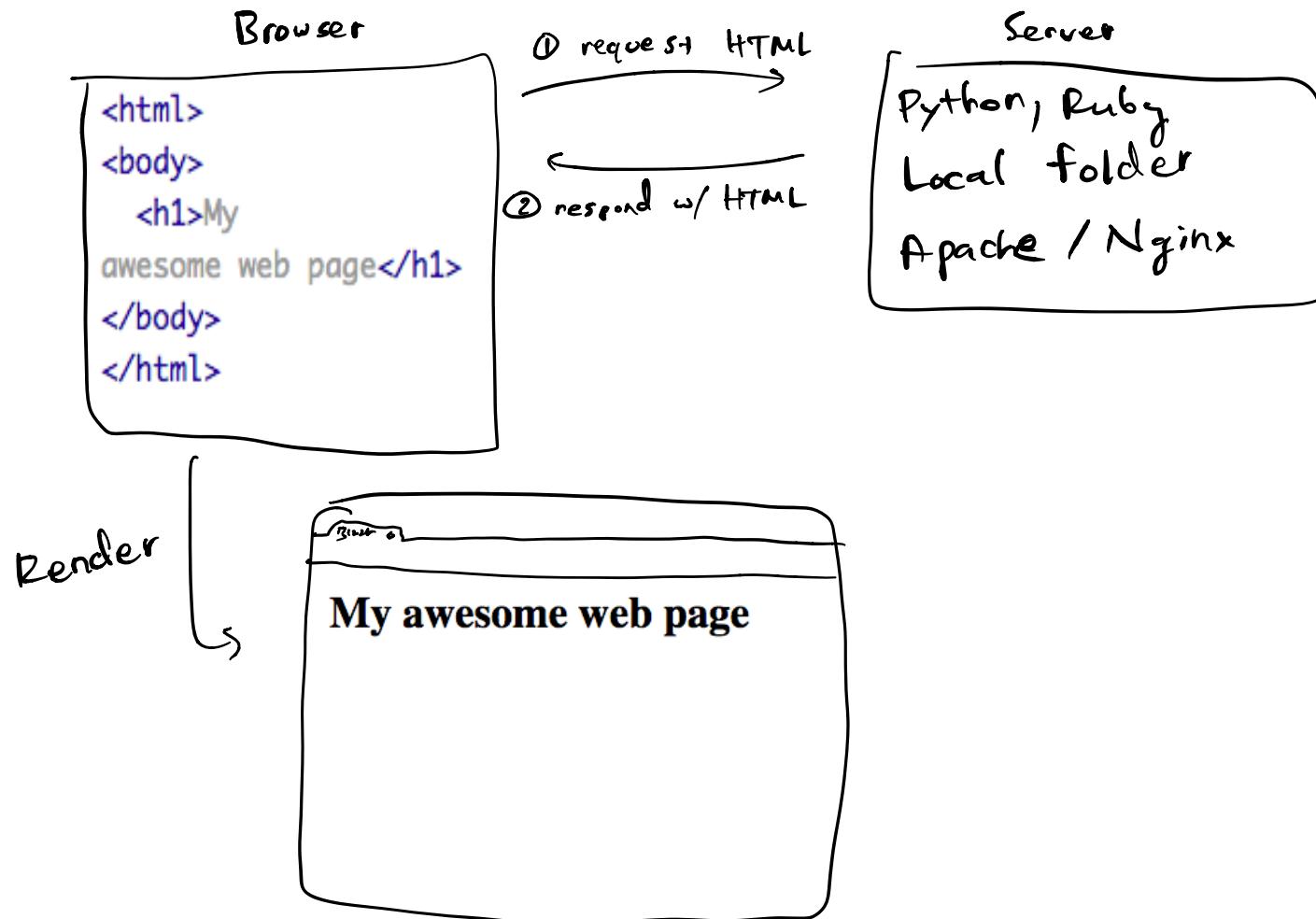
Server

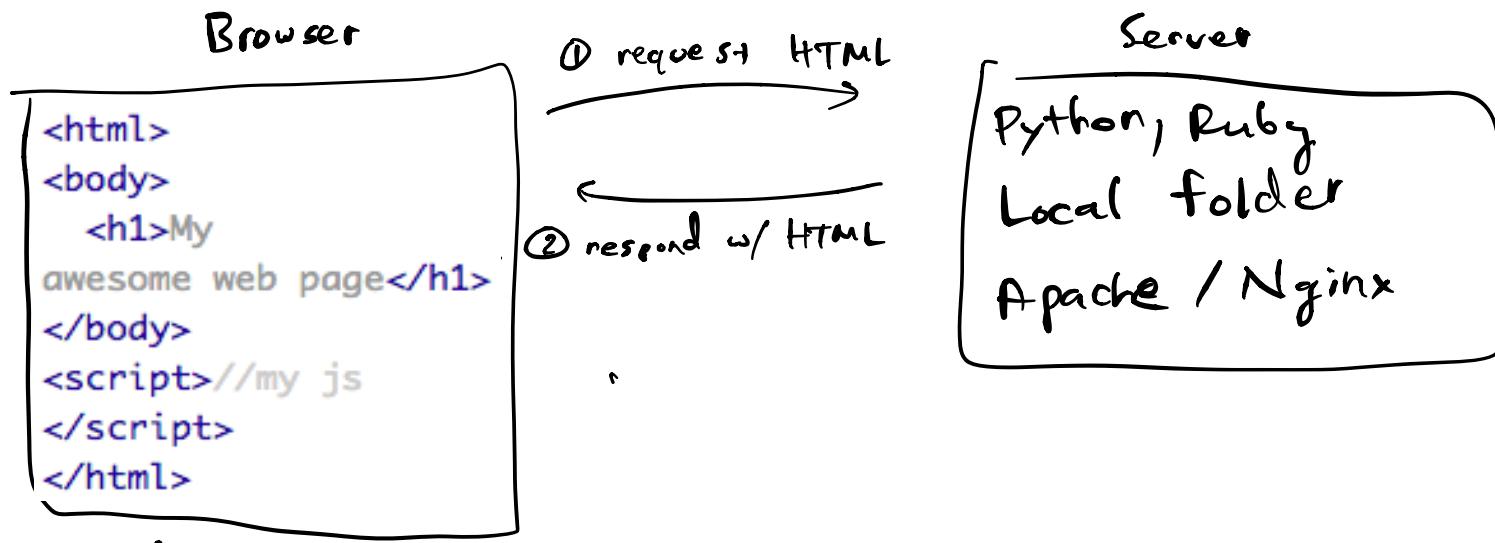


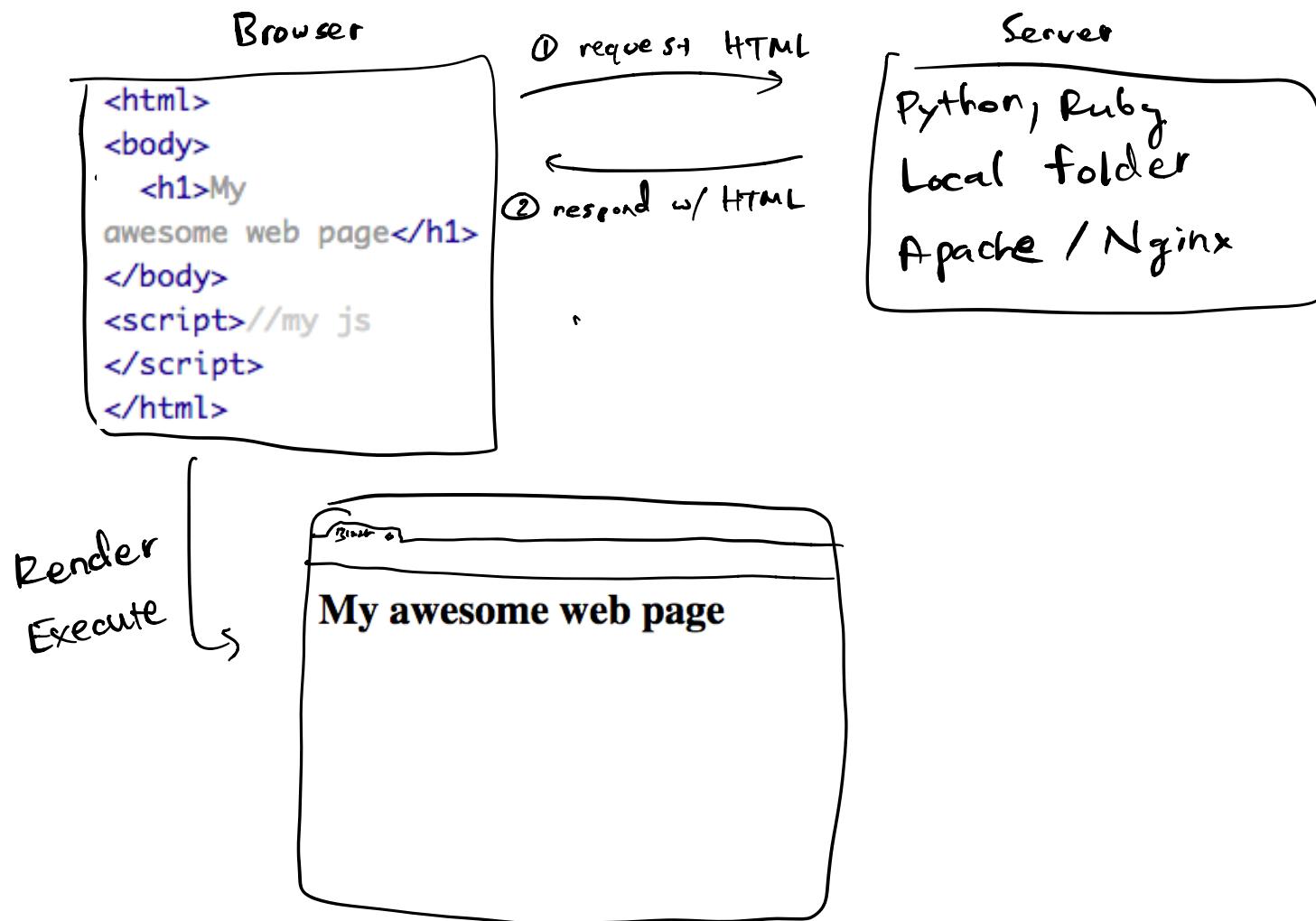


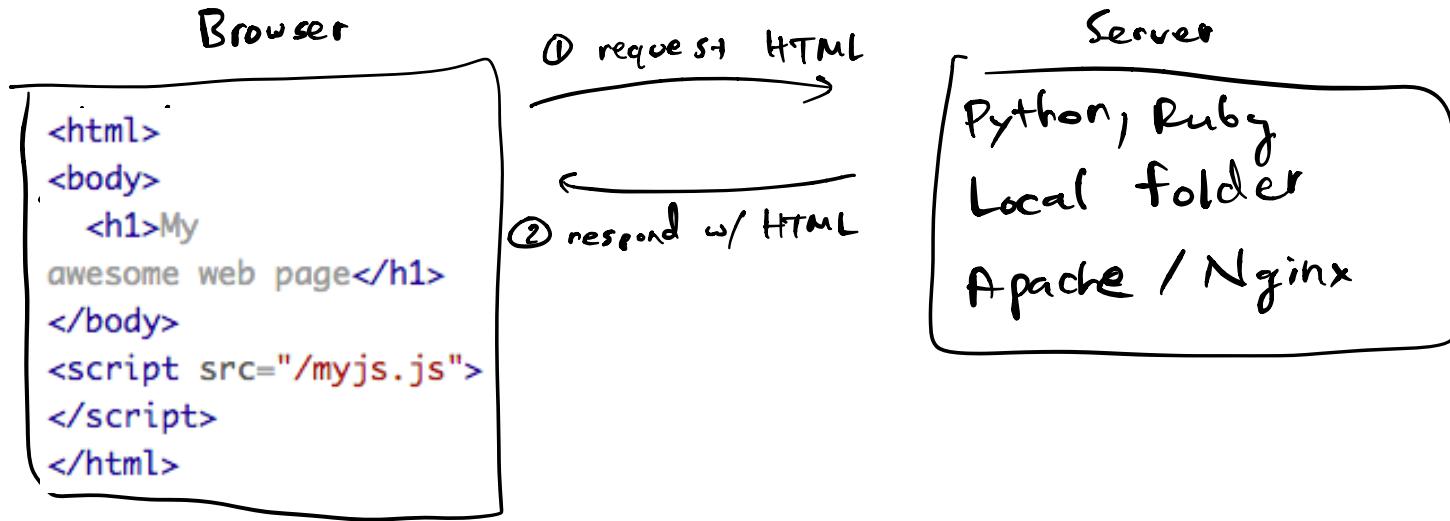


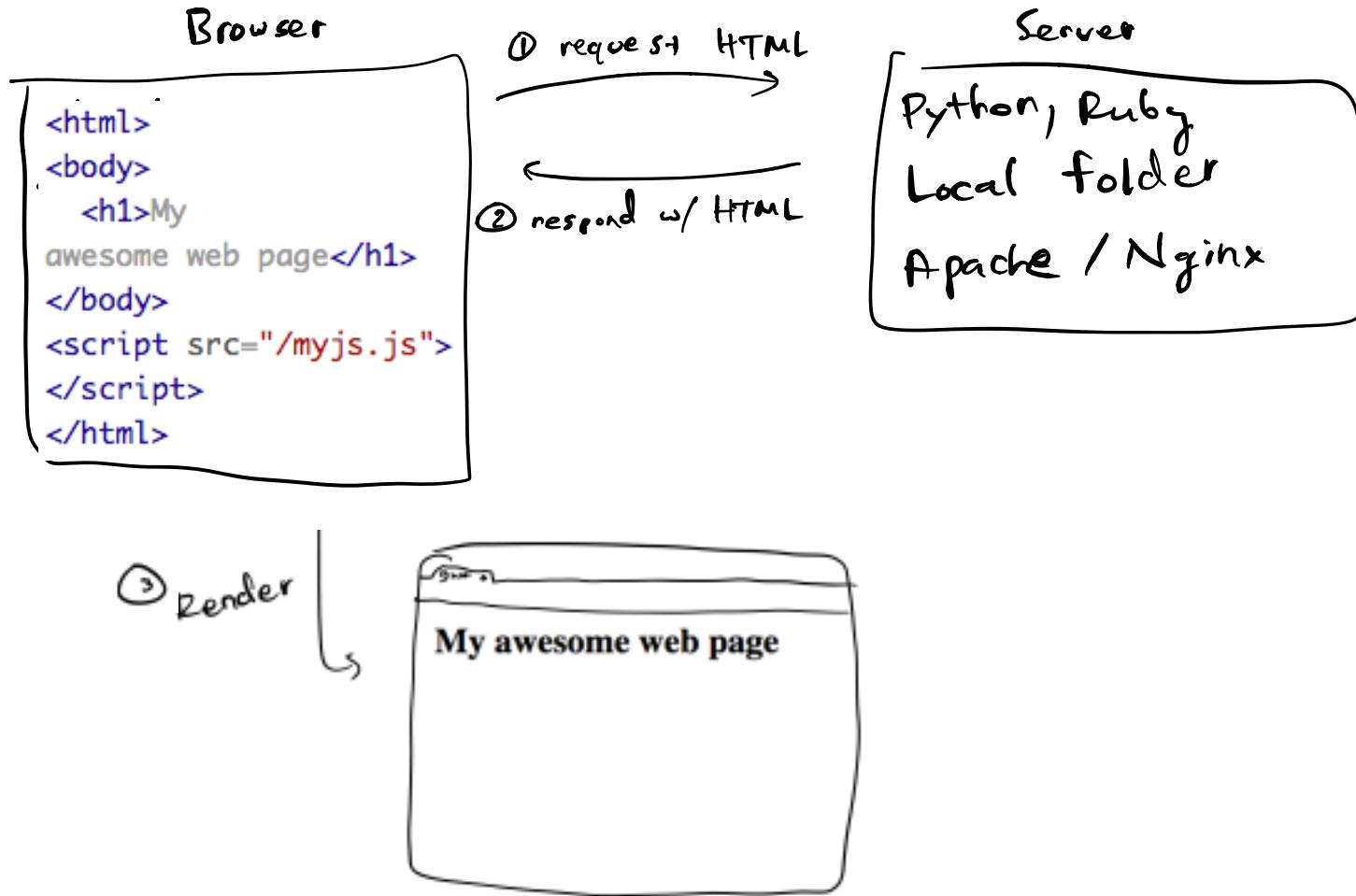


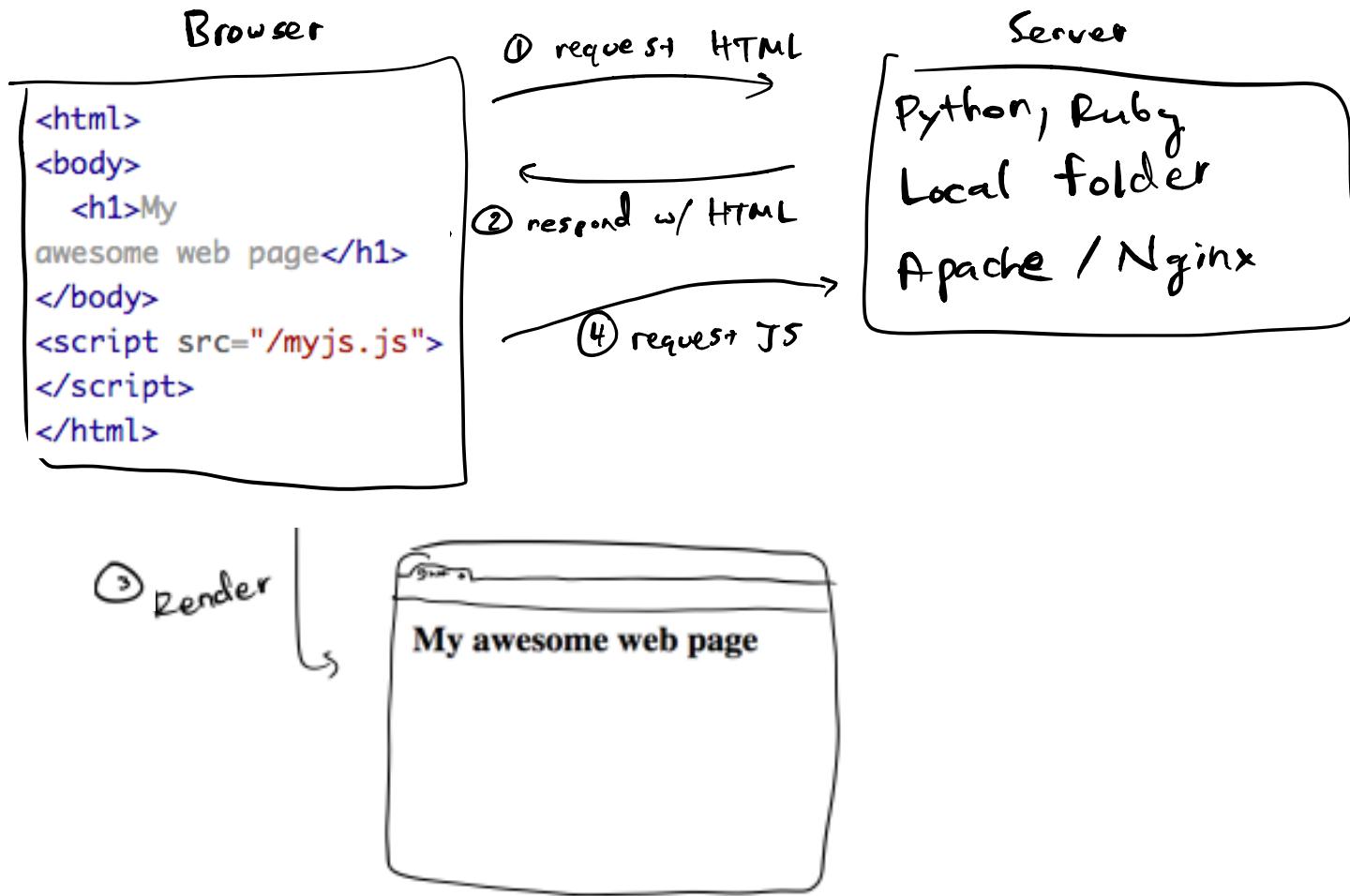


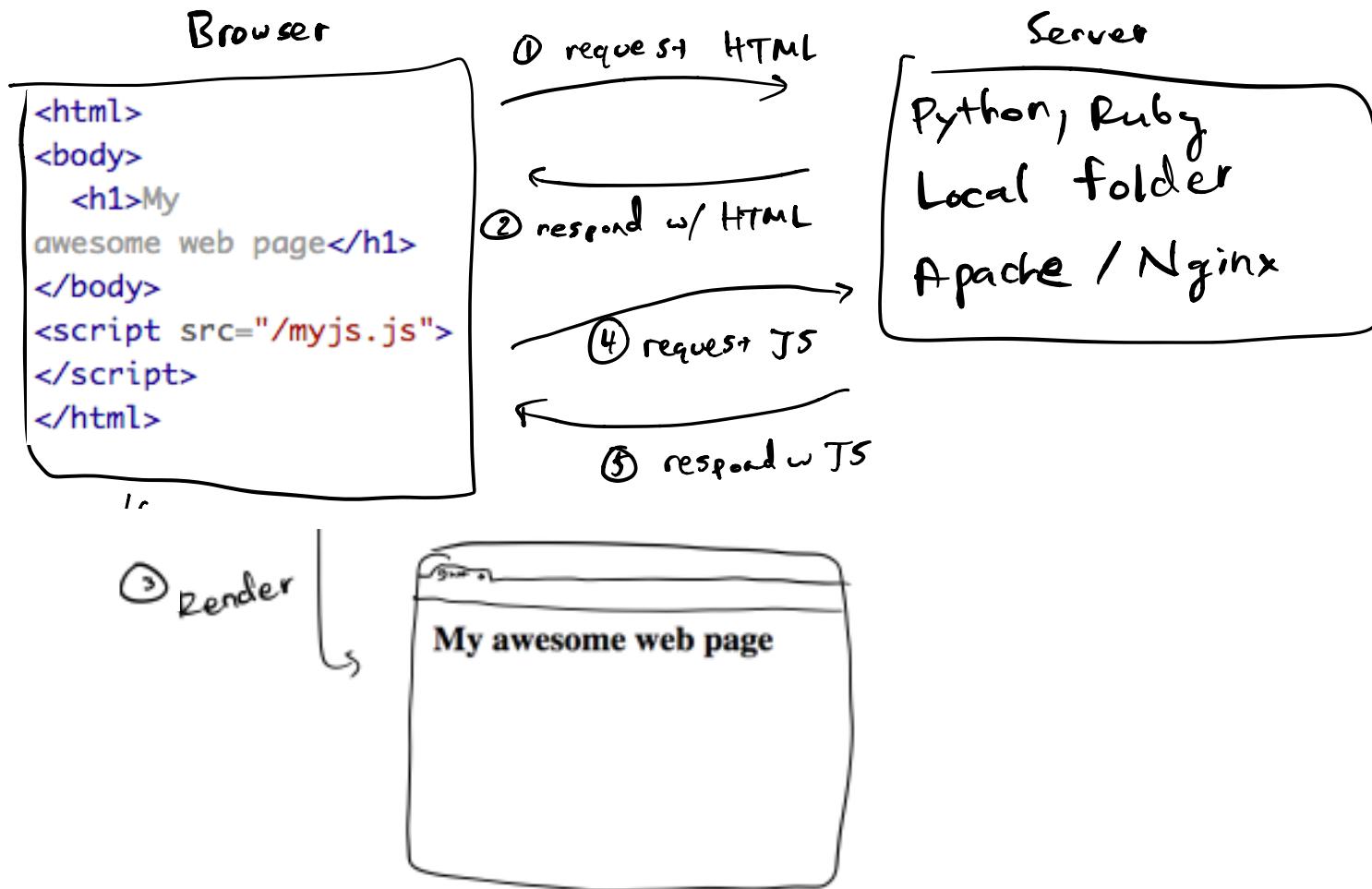


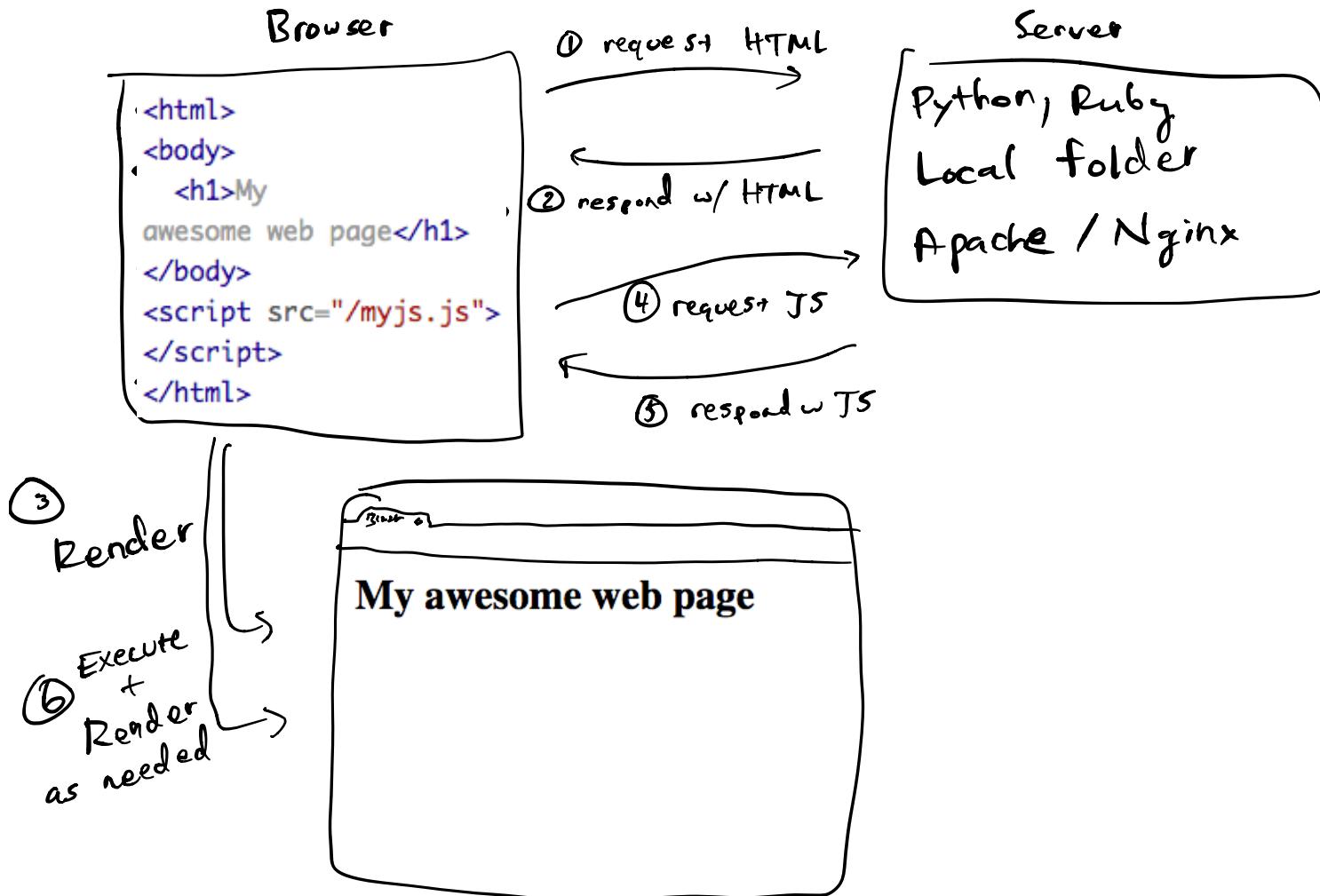












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