

# Single Page Applications & AJAX

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*Wow. Such buzzwords. Much JavaScript*

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- **Submitting forms (GET/POST)**

**All of the above make the browser navigate and retrieve new documents.**



# Server







# Server

GET /





# Server



index.html

GET /





# Server



index.html

GET /



User clicks on link . . .



# Server





# Server

GET /settings







# Server



settings.html

GET /settings



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- Each page, since it is a new page, retrieves stylesheets, script files, etc.



A wooden bowl containing stacked stones and a green leaf, symbolizing relaxation and spa.

# *What is SPA?*

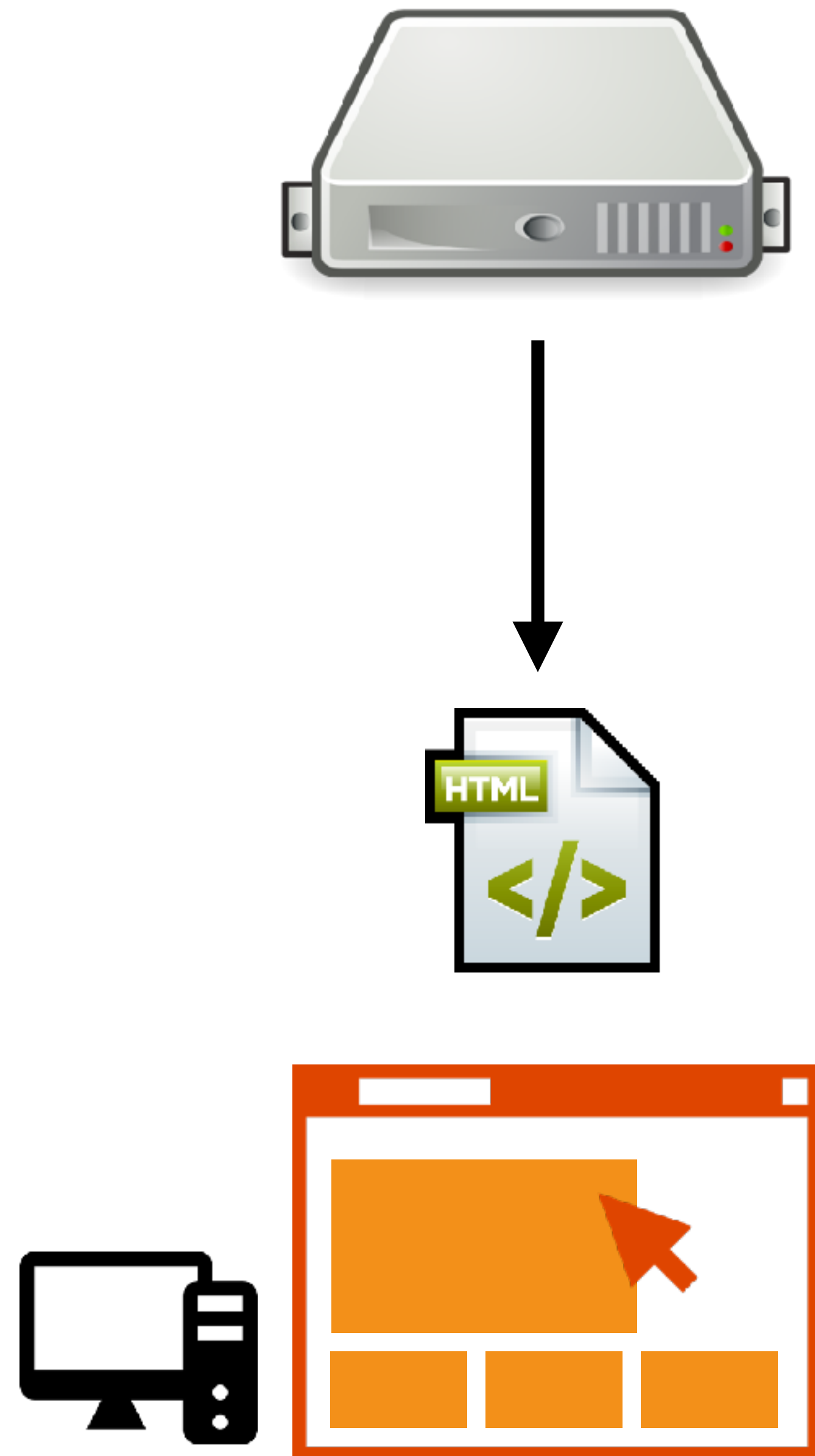


*“A single-page application (SPA) is a web application or web site that interacts with the user by dynamically rewriting the current page rather than loading entire new pages from a server.”*

WIKIPEDIA

# Single Page Applications

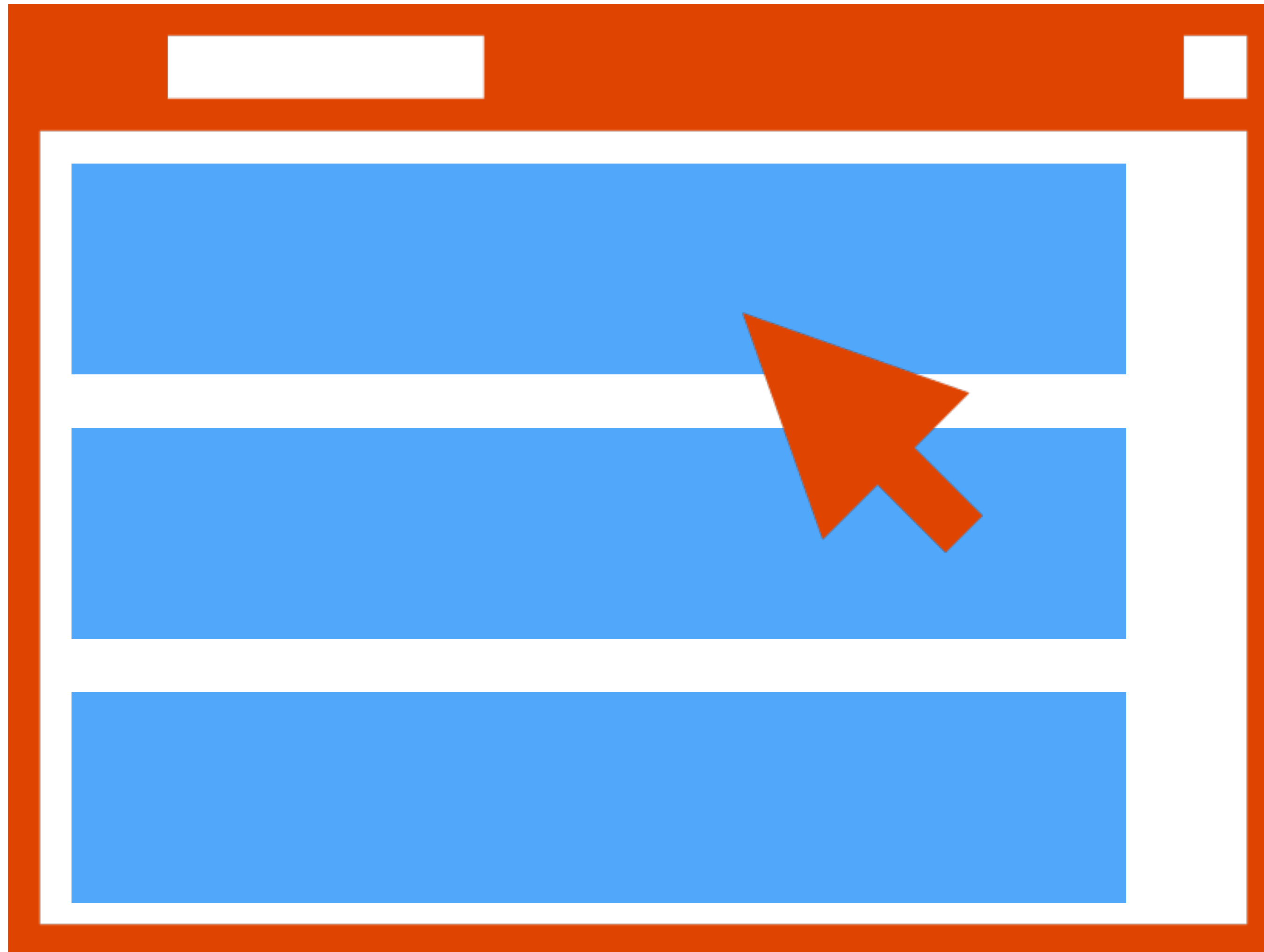
- **No reload or “refresh” within the user interface**
  - JavaScript manipulates the DOM as the user interacts
- **User experience similar to a native application**









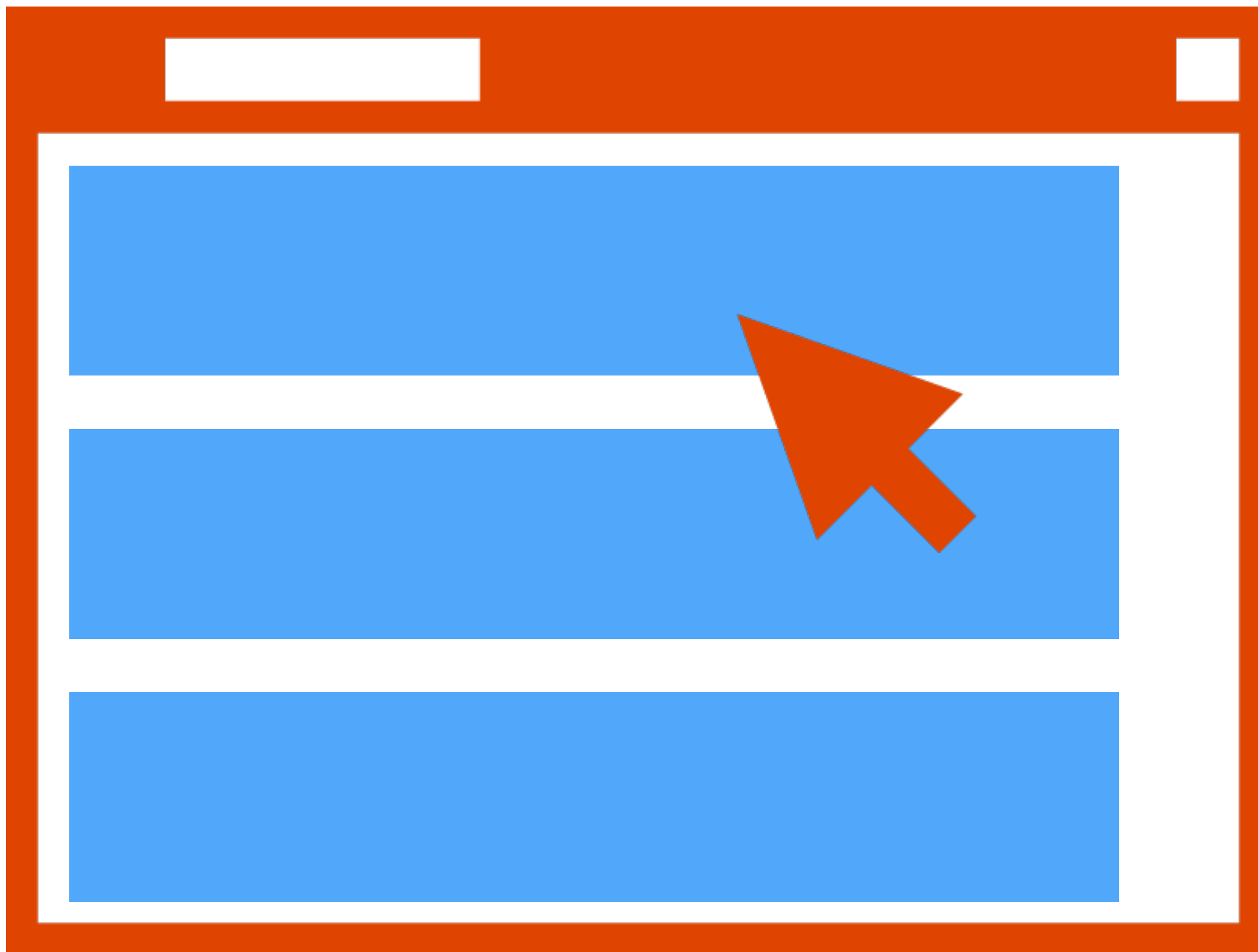


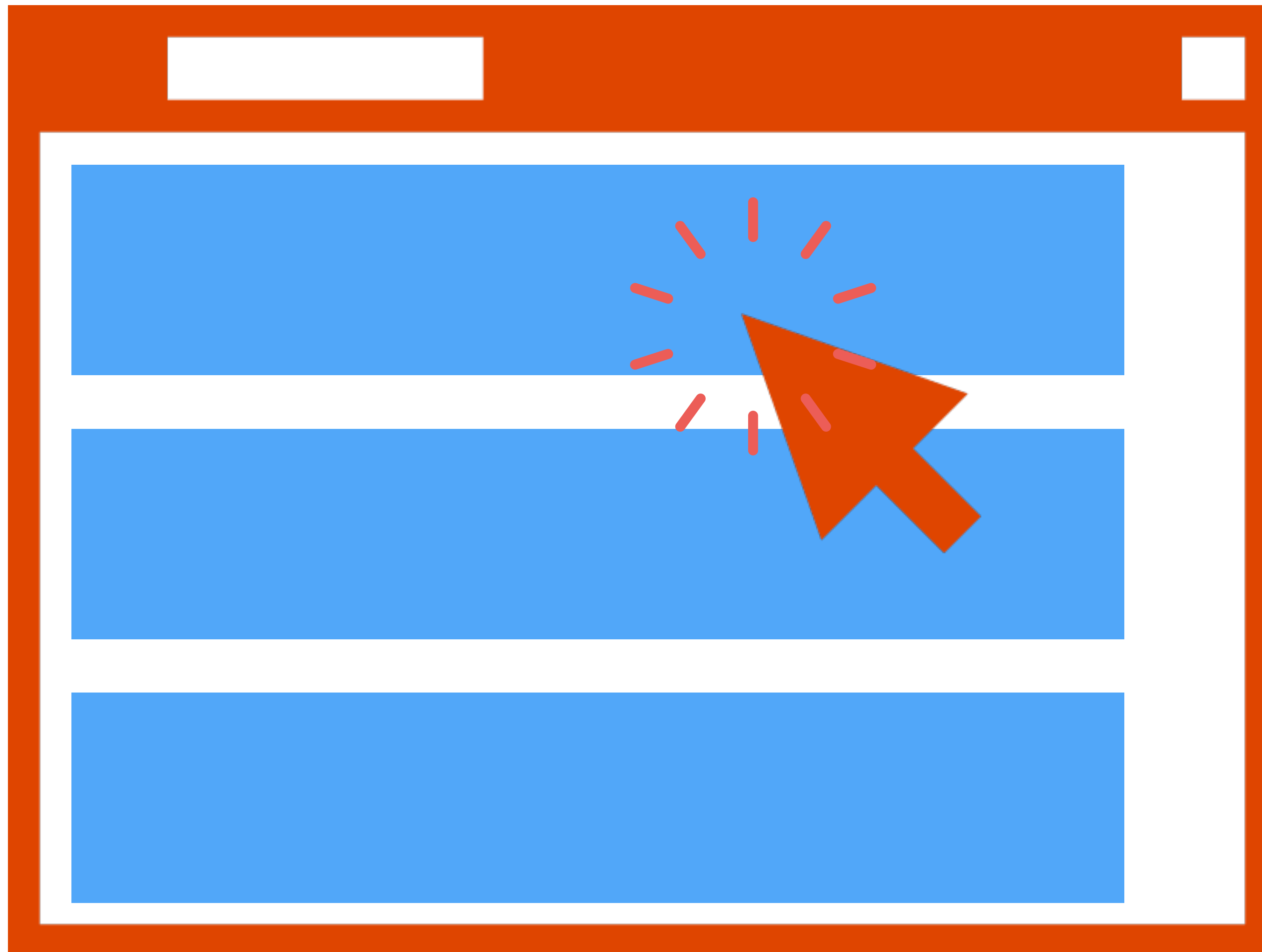


*What is  
AJAX?*

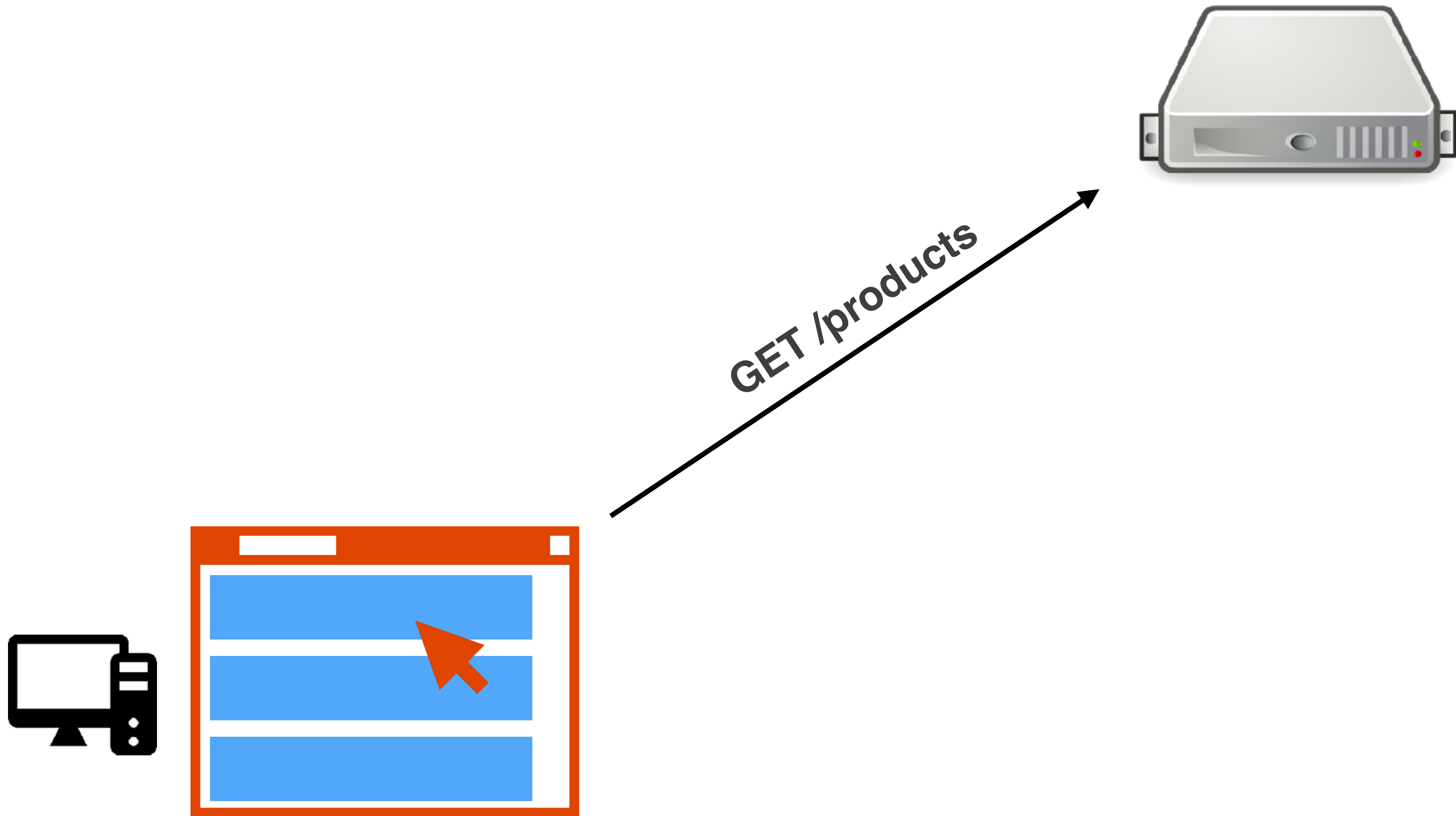
# AJAX

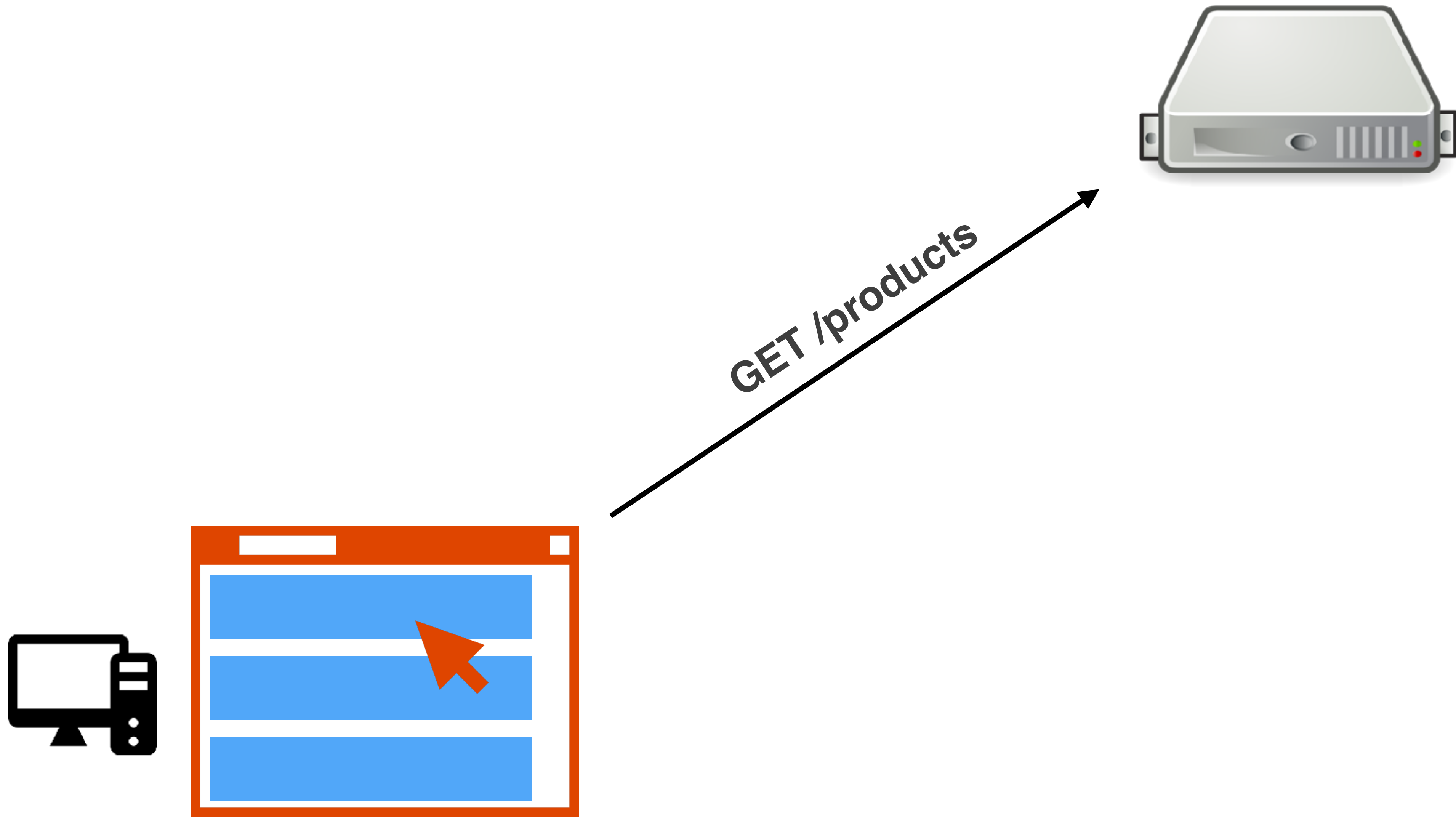
- **“Asynchronous JavaScript And XML”**
- **Making background HTTP requests using JavaScript**
- **Handling the response of those HTTP requests with JavaScript**
- **No page refresh necessary**



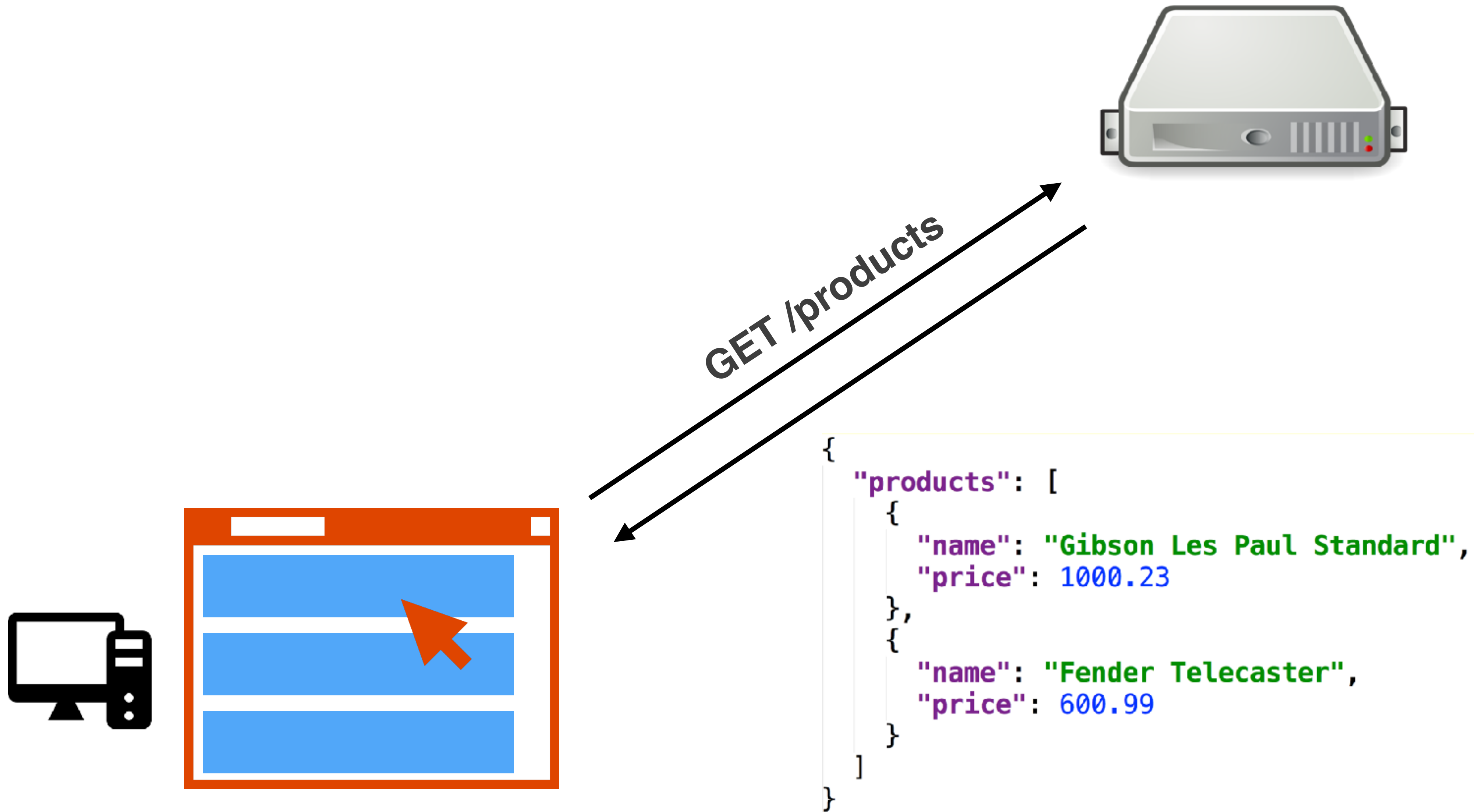


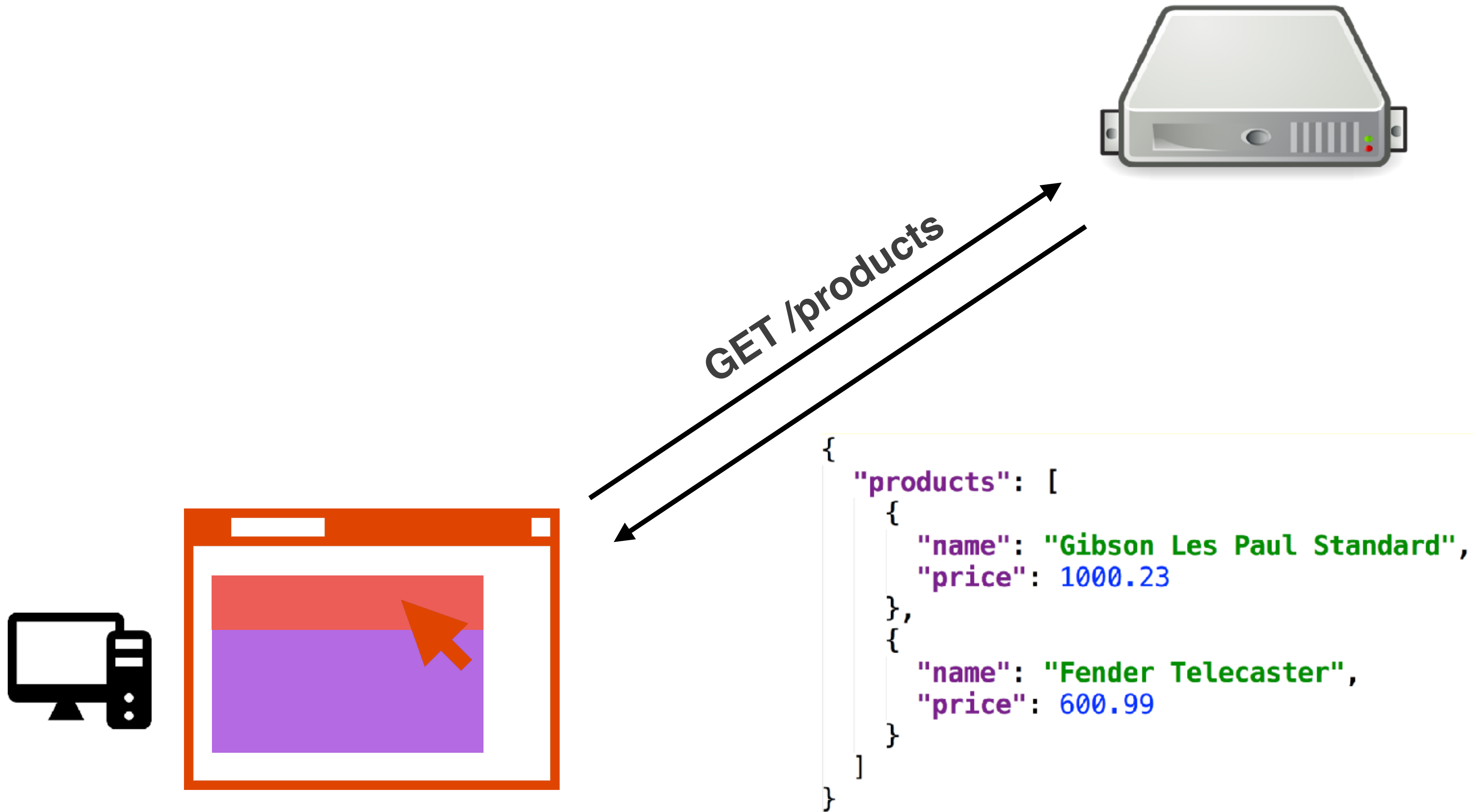












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- **Examples: JSON, XML, YAML**

# ASYNCHRONOUS JAVASCRIPT AND XML



# ASYNCHRONOUS JAVASCRIPT AND JSON

# RECAP

- **AJAX is the method of sending background HTTP requests with JavaScript**
- **Single Page Applications load a single HTML page and dynamically update the DOM as the user interacts with the app or data gets fetched from the server (using AJAX).**
- **The Network tab in Developer Tools is your friend**

# `window.fetch()`