

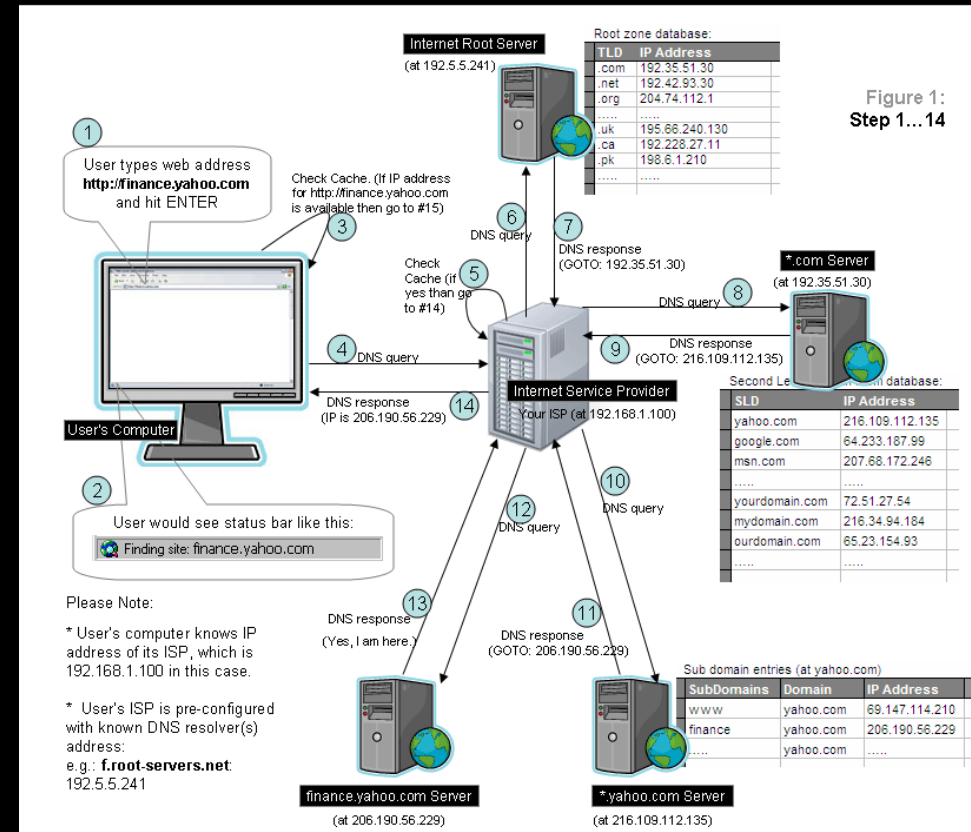
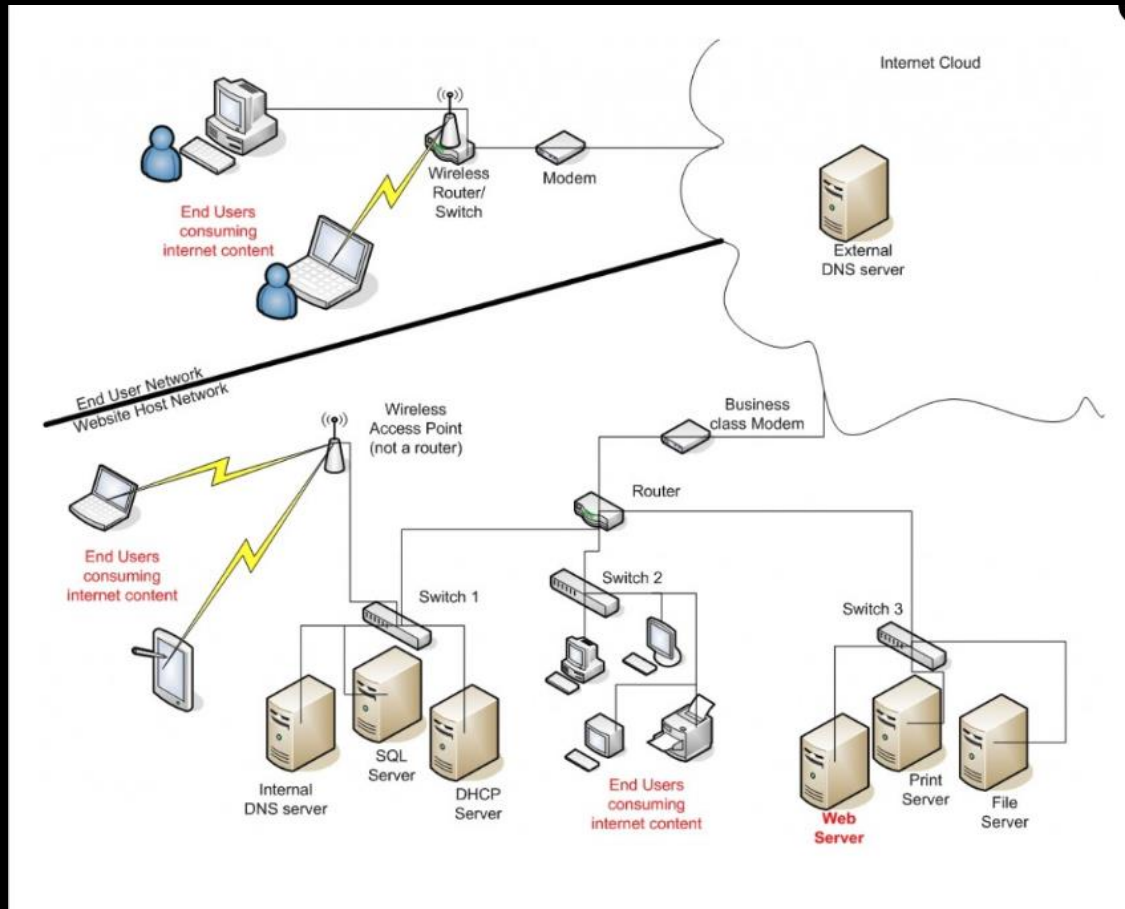


# Web Deve1opment

And The JavaScript Universe

JavaScript?

# Systems are Complex



# Web Application

In computing, a web application or web app is a **client-server** computer program in which the client **runs in a web browser**.

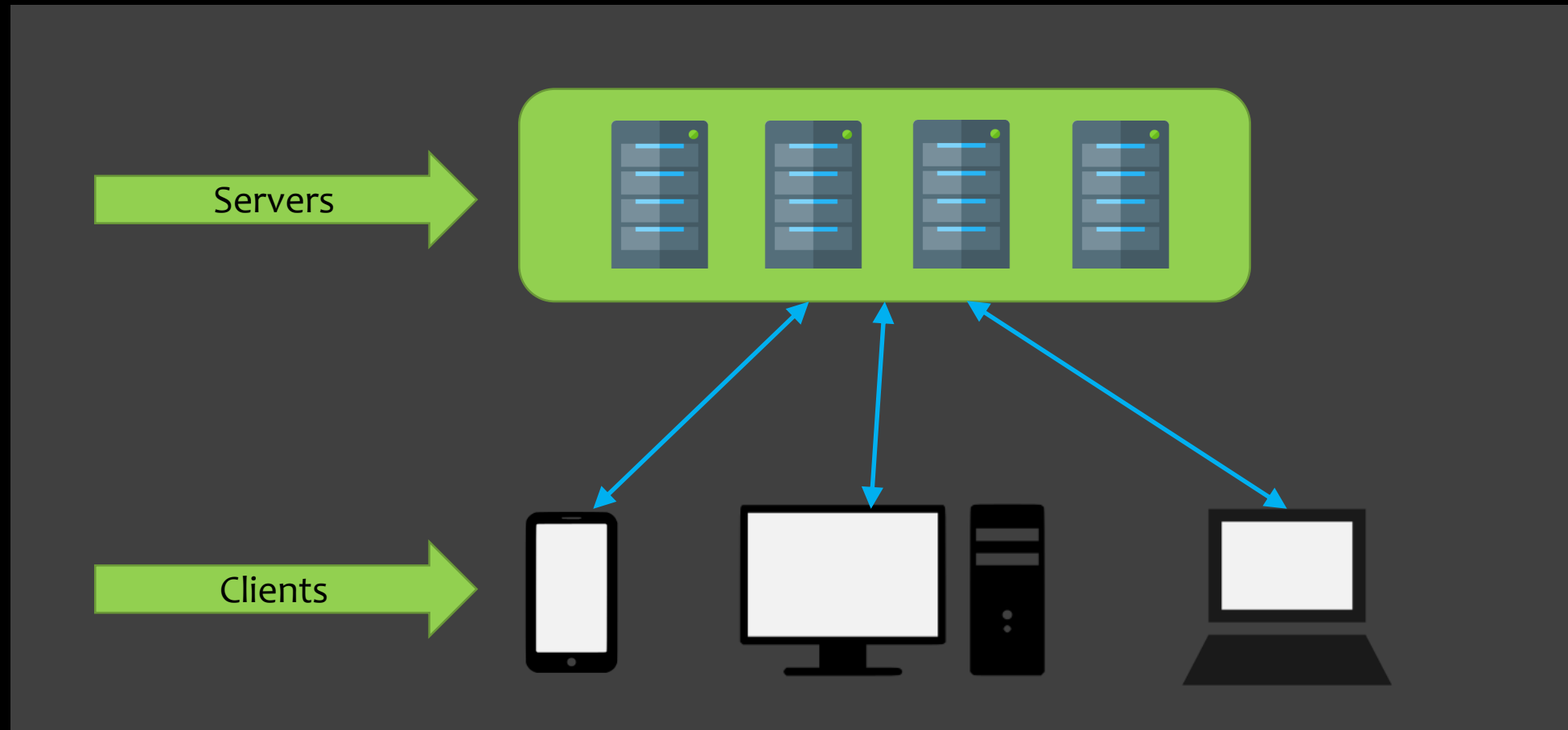
-- Wikipedia

# Web Application

In computing, a web application or web app is a **client–server** computer program in which the client **runs in a web browser**.

-- Wikipedia

# Web Apps: Clients & Servers



# Clients



Servers – this could be a server





But servers are more like this



# Server Room Security





# Server Farms are Huge



© Facebook





# More views of Facebook's server farm



# Web Apps

Just a little bit on how they work

# A Simple View?

Request / Response



Request

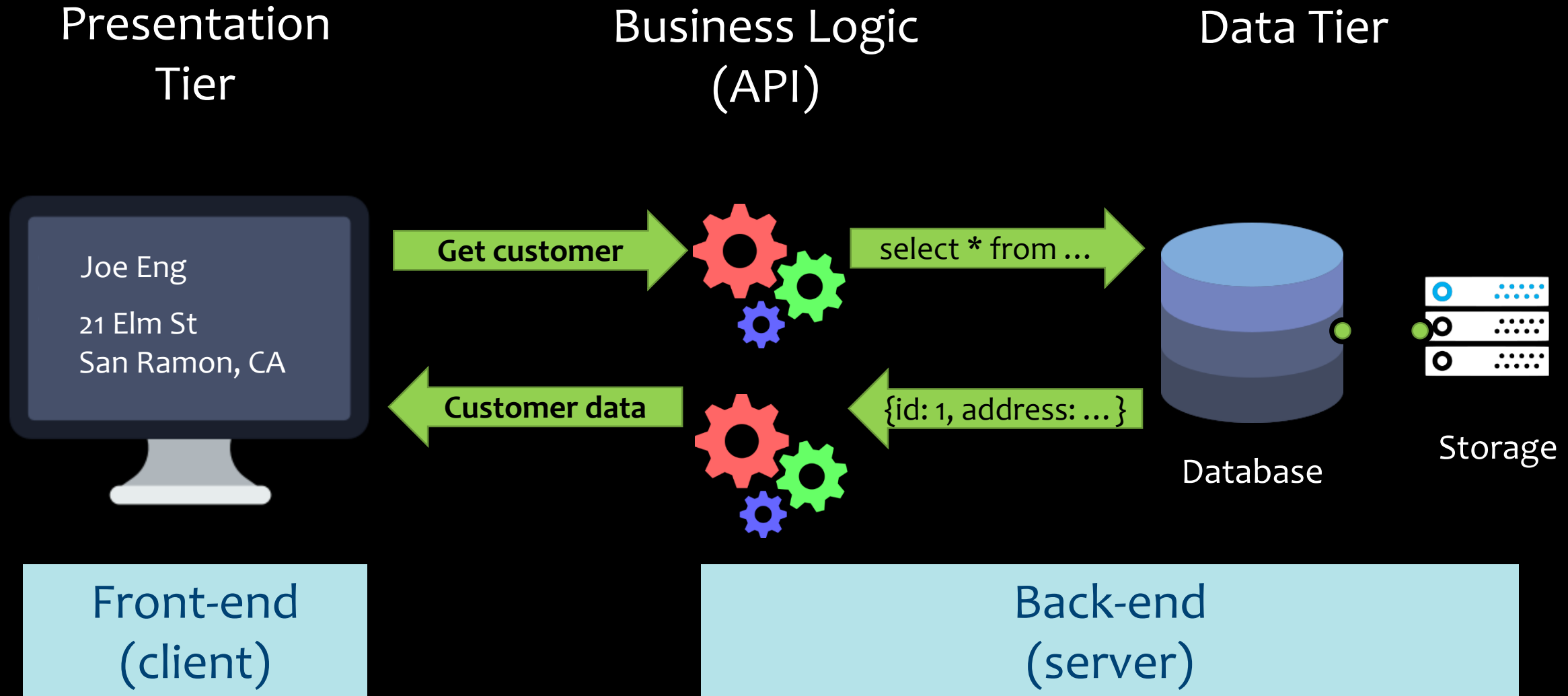
Client asks for a page: [www.roblox.com](http://www.roblox.com)

Response

HTML, CSS & JavaScript, images, etc.



# Layers of a Web Application



# How does the client find the server?

IP Addresses



<https://www.ultratools.com/tools/ipWhoisLookup>

# WHOIS IP Lookup Tool


The IPWHOIS Lookup tool finds contact information for the owner of a specified IP address.

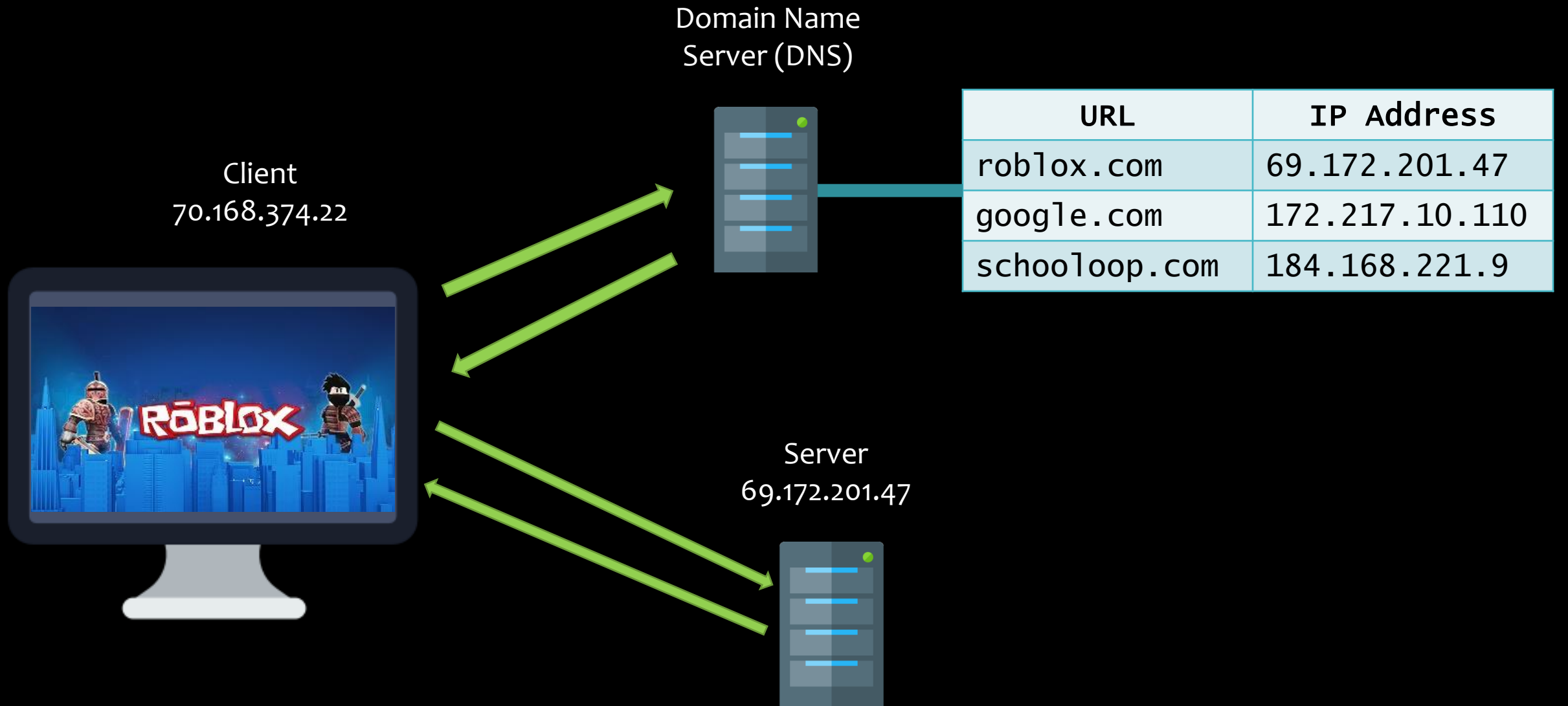
*Enter a host name or an IP address:*

Go »

*Related Tools:* [DNS Traversal](#) [Traceroute](#) [Vector Trace](#) [Ping](#) [WHOIS Lookup](#)

```
Source: whois.arin.net
IP Address: 172.217.10.110
Name: GOOGLE
Handle: NET-172-217-0-0-1
Registration Date: 4/16/12
Range: 172.217.0.0-172.217.255.255
Org: Google LLC
Org Handle: GOGI
Address: 1600 Amphitheatre Parkway
City: Mountain View
State/Province: CA
Postal Code: 94043
Country: United States
Name Servers:
```





# A JavaScript Project

Software is made of components

Project

- components
  - elements
- Home
  - \_blank
  - blog
  - CodeOfConduct
  - Footer
  - html-css-js
  - js-toc
  - PageTitle
  - present
    - C1
      - index.jsx
  - react
  - TopBar
    - index.jsx
    - style.css
- data
- lib
- store
- toc
  - blog-toc.js
  - html-toc.js
  - js-toc.js
  - present-toc.js
  - react-toc.js
  - restaurant-toc.js
  - toc.js

```

1  import React from 'react'
2  import TOC from 'elements/TOC'
3  import { withRouter } from 'react-router-dom'
4  // HTML, CSS, JS
5  import C1 from 'Home/present/C1'
6
7  // import Tables from './html-css-js/Tables'
8
9  export const routes = [
10   // HTMLTOC
11   {
12     title: 'Present',
13     type: 'toc',
14     path: '/present',
15     exact: true,
16     component: withRouter(({ match }) => <TOC
17       rootPath='present' pageTitle='Present'
18       match={match} />),
19   },
20   {
21     title: 'C1',
22     type: 'page',
23     path: '/present/c1',
24     component: withRouter(({ match }) => <C1
25       match={match} />),
26   },
27 ]

```

```

1  import React from 'react'
2  import Pre from 'elements/Pre'
3  import Section from 'elements/Section'
4
5  const C1 = () => {
6    return (<div id='C1'>
7      <Section>
8        <iframe className="frame"
9          src="https://repl.it/@kleguis/c1?lite=true"
10          scrolling="no" frameBorder="no"
11          allowTransparency="true"
12          allowFullScreen="true" sandbox="allow-forms
13            allow-pointer-lock allow-popups
14            allow-same-origin allow-scripts allow-modals"
15          title="c1" width="800" height="800"></iframe>
16      </Section>
17      <Section>
18        <iframe title="x" width="100%" height="800px"
19          frameBorder="0" scrolling="no"
20          allowTransparency="true"
21          src="https://tech.io/playground-widget/7b6745f
22            2c57179db1e850f3a9792994332051/welcome/60559/L
23            uke%2C%20how%20many%20stars%20are%20there%20in
24            %20these%20galaxies%3F"></iframe>
25      </Section>
26    </div>)
27  }

```

- Project
- components
    - elements
  - Home
    - \_blank
    - blog
    - CodeOfConduct
    - Footer
    - html-css-js
    - js-toc
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    - C1
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    - js-toc.js
    - present-toc.js
    - react-toc.js
    - restaurant-toc.js
    - toc.js

```
1 import React from 'react'
2 import TOC from 'elements/TOC'
3 import { withRouter } from 'react-router-dom'
4 //
5 im
6
7 //
8
9 ex
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
```

## tvc-school Properties

## Basic

## Permissions

## Local Network Share



Name: tvc-school

Type: Folder (inode/directory)

Contents: 29,228 items, totalling 119.7 MB

Location: /home/klequis/dev/wk

Free space: 433.1 GB

```
path: '/present/c1',
component: withRouter(({ match }) => {
  match={match} />),
},
```

present-toc.js

index.jsx

```
1 import React from 'react'
2 import Pre from 'elements/Pre'
3 import Section from 'elements/Section'
4
5
6
7
8
9
10
11
12
13
14
15
```

## src Properties

## Basic

## Permissions

## Local Network Share



Name: src

Type: Folder (inode/directory)

Contents: 394 items, totalling 6.0 MB

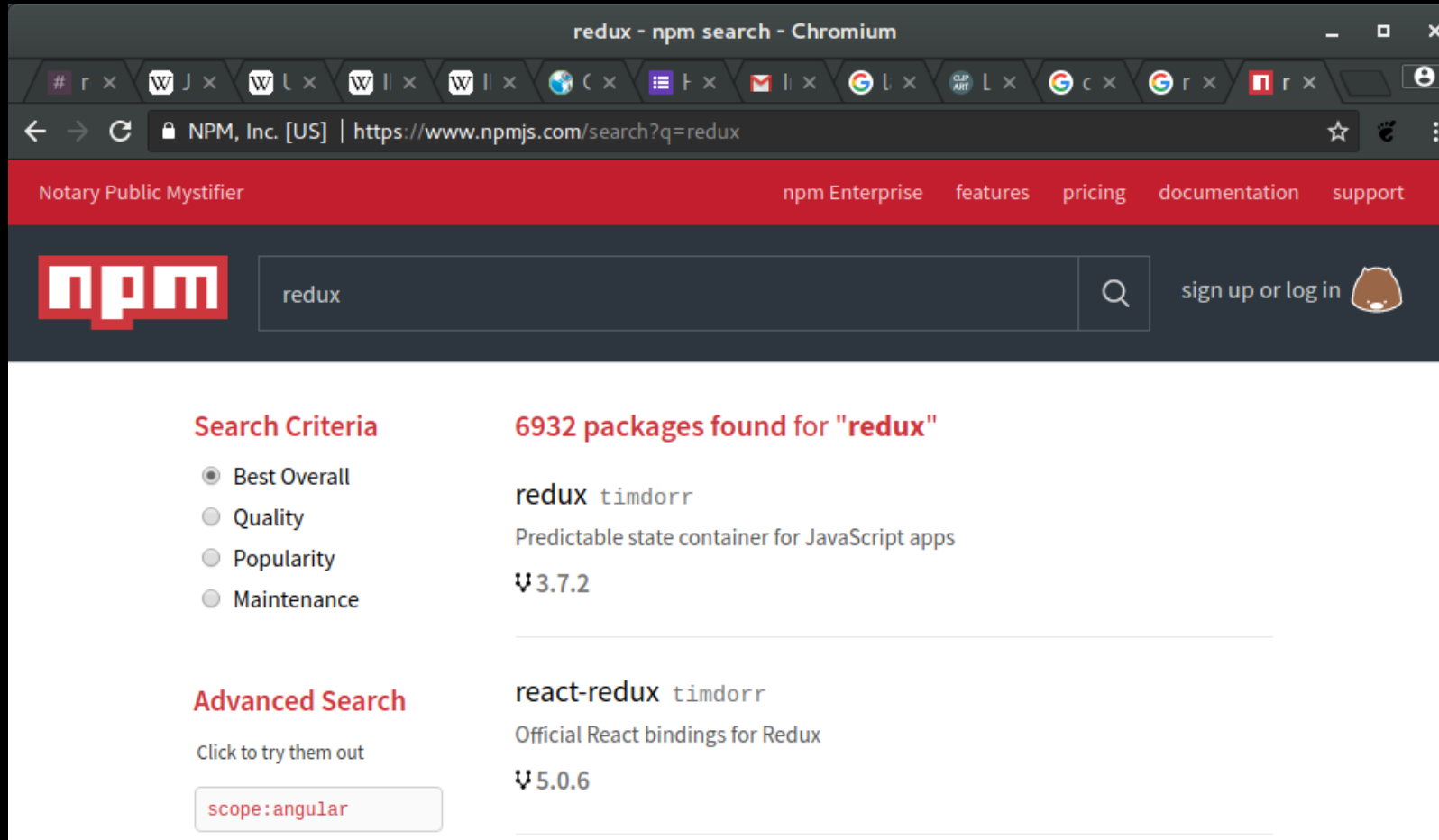
Location: /home/klequis/dev/wk/tvc-school...

Free space: 433.1 GB

```
uke%2C%20how%20many%20stars%20are%20there%20in
e%20threes%20columns%3F"></iframe>
```

$$394 / 29,228 = 0.0134 \text{ (1.3\%)}$$

# NPM - > 350,000 packages



The screenshot shows a Chromium browser window titled "redux - npm search - Chromium". The address bar displays "NPM, Inc. [US] | https://www.npmjs.com/search?q=redux". The page features a red navigation bar with links: "Notary Public Mystifier", "npm Enterprise", "features", "pricing", "documentation", and "support". Below this is a dark header with the "npm" logo, a search bar containing "redux", a magnifying glass icon, and a "sign up or log in" link with a cat icon. The main content area is divided into two columns. The left column has a "Search Criteria" section with radio buttons for "Best Overall" (selected), "Quality", "Popularity", and "Maintenance", followed by an "Advanced Search" section with a "Click to try them out" link and a search box containing "scope:angular". The right column displays "6932 packages found for 'redux'" and lists two results: "redux" by "timdorr" with a description "Predictable state container for JavaScript apps" and version "v3.7.2", and "react-redux" by "timdorr" with a description "Official React bindings for Redux" and version "v5.0.6".

redux - npm search - Chromium

Notary Public Mystifier npm Enterprise features pricing documentation support

npm redux sign up or log in

**Search Criteria**

- ☒ Best Overall
- ☐ Quality
- ☐ Popularity
- ☐ Maintenance

**Advanced Search**

Click to try them out

scope:angular

**6932 packages found for "redux"**

redux timdorr  
Predictable state container for JavaScript apps  
v3.7.2

react-redux timdorr  
Official React bindings for Redux  
v5.0.6

# Resources

- What is the Internet?  
<https://youtu.be/Dxcc6ycZ73M?list=PLzdnOP1iJNfMRZm5DDxco3UdsFegvuB7>

# Database Database Management System (DBMS)

