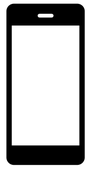
How the Web works

A Brief Introduction

WI22 - DSE241

What happens when you hit google.com?

Clients



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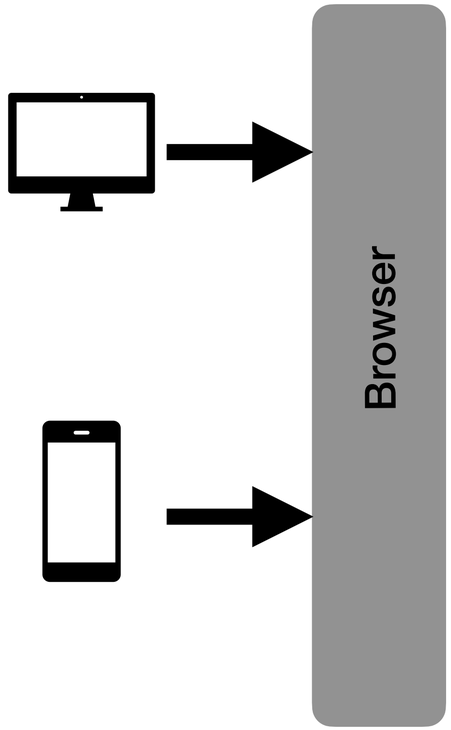

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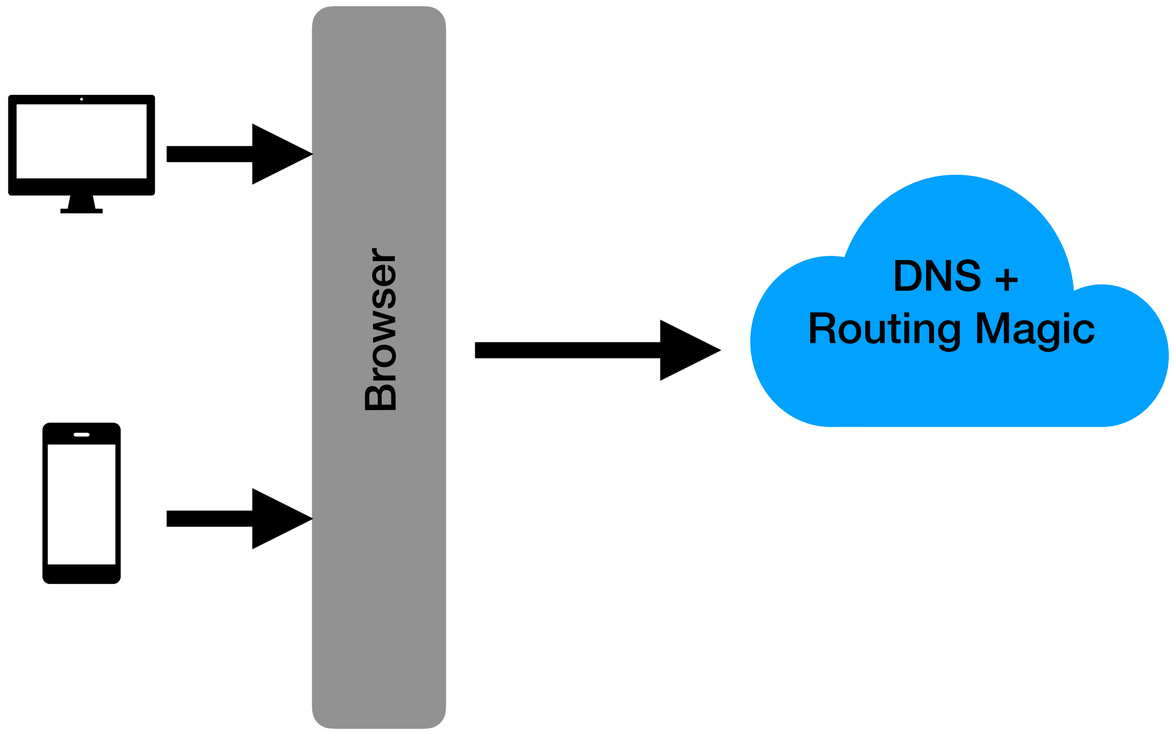

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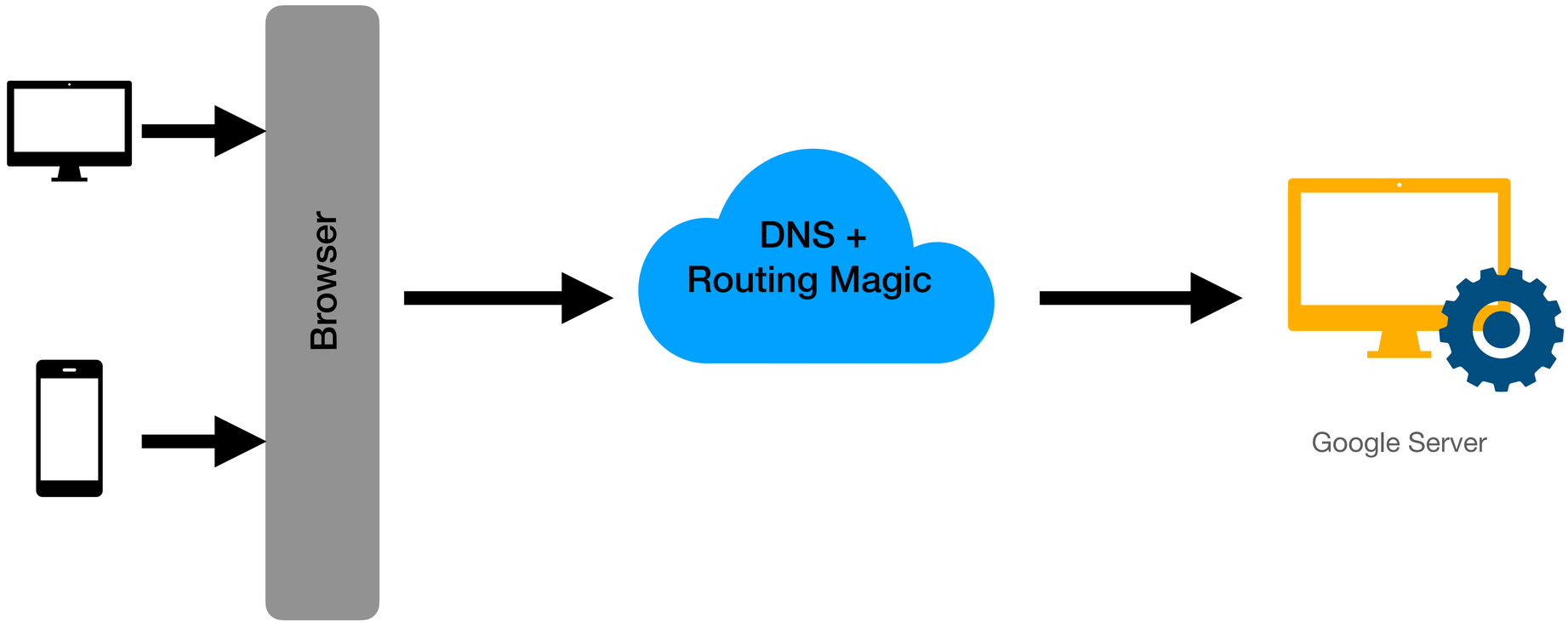
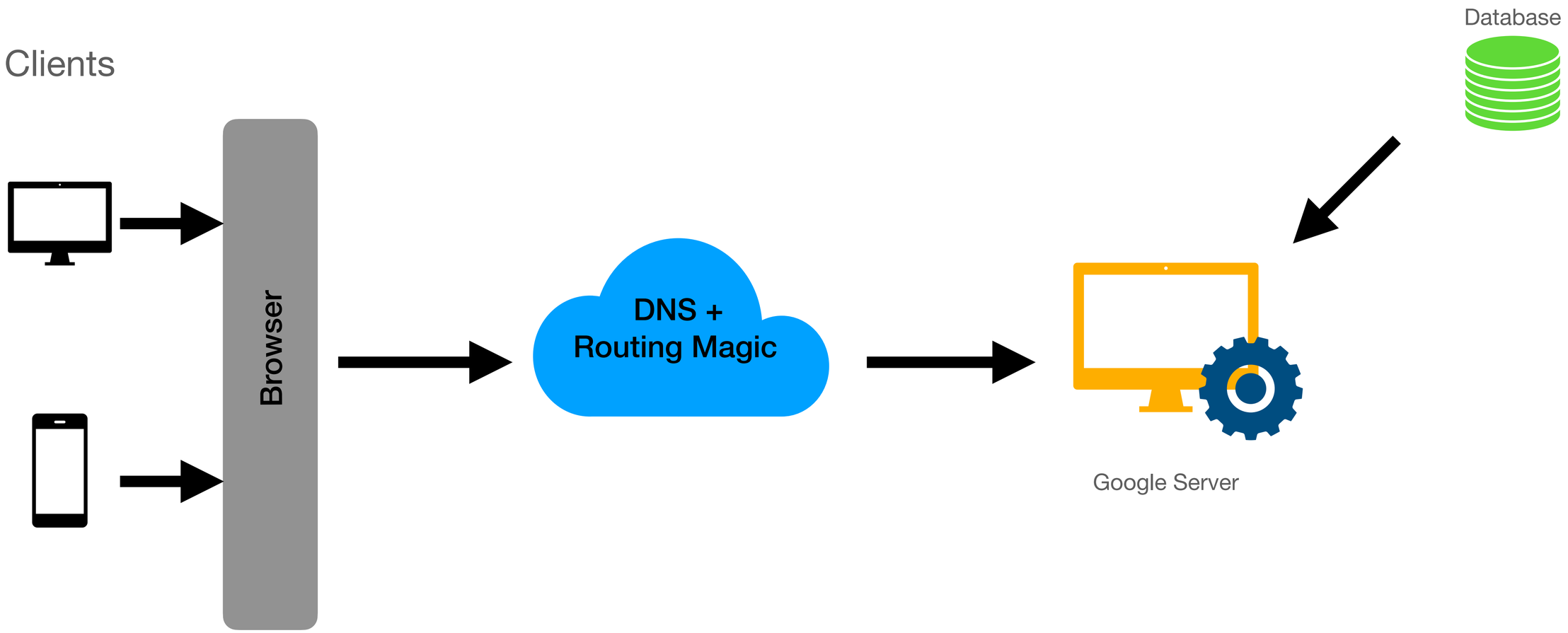
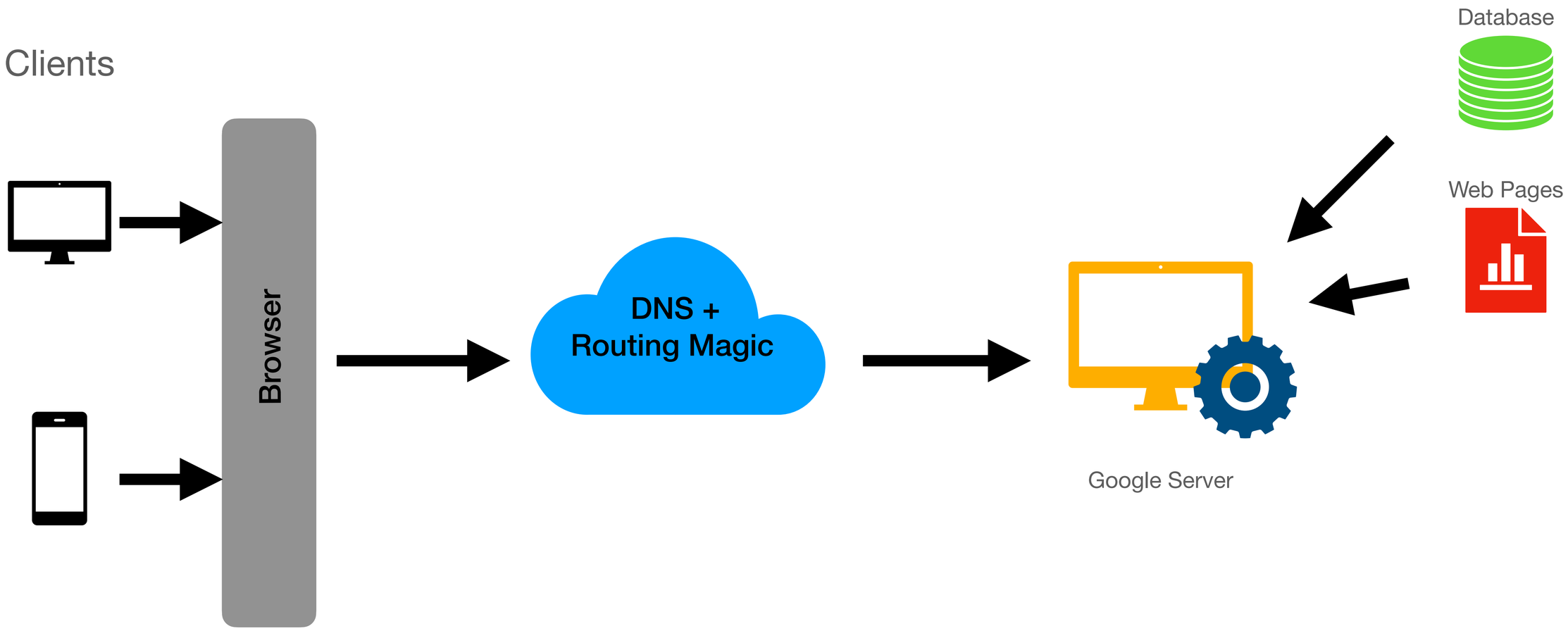



Clients
Database
Browser
DNS +
Routing Magic
Google Server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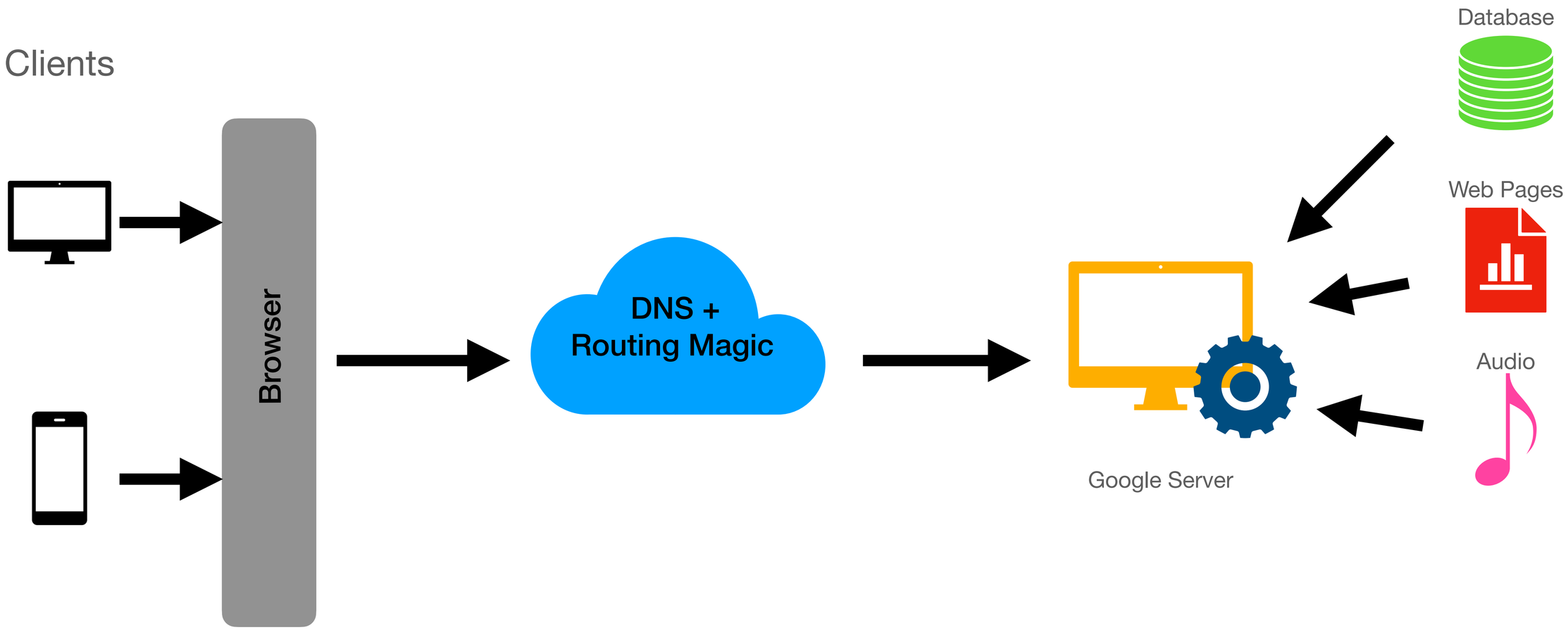
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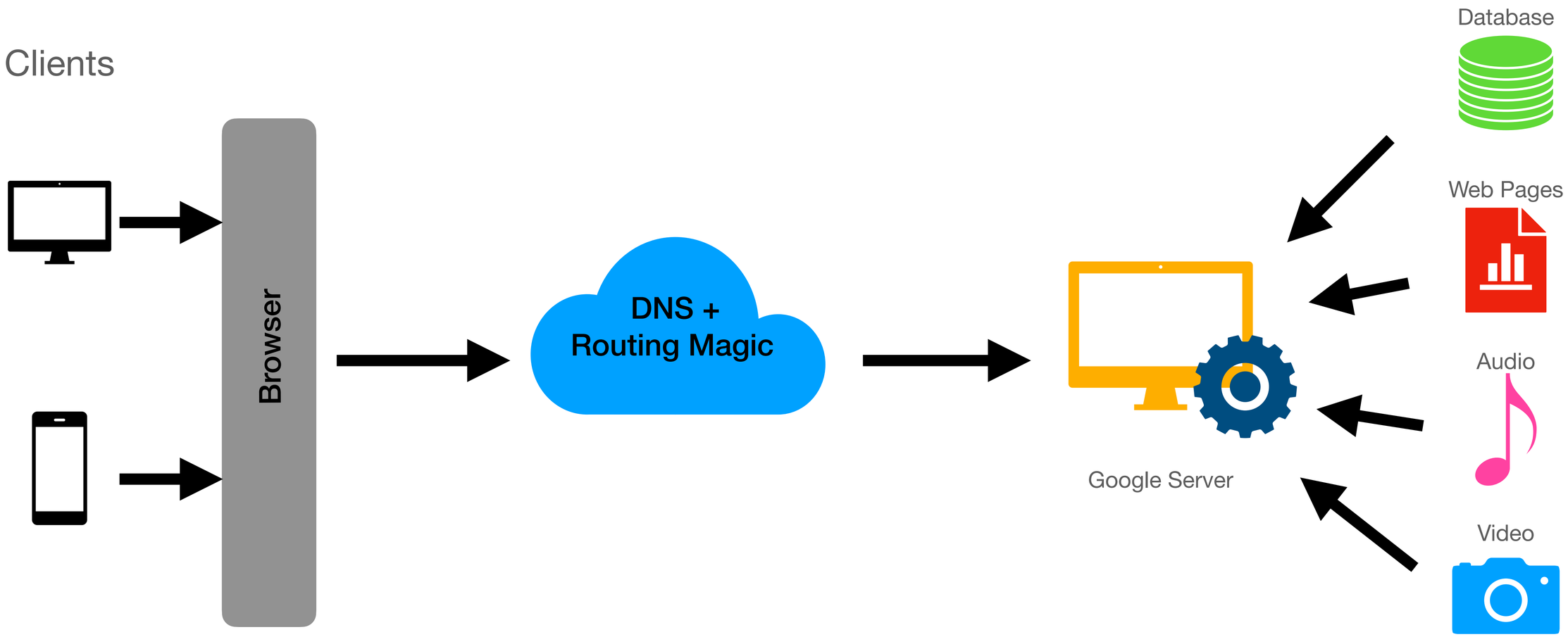
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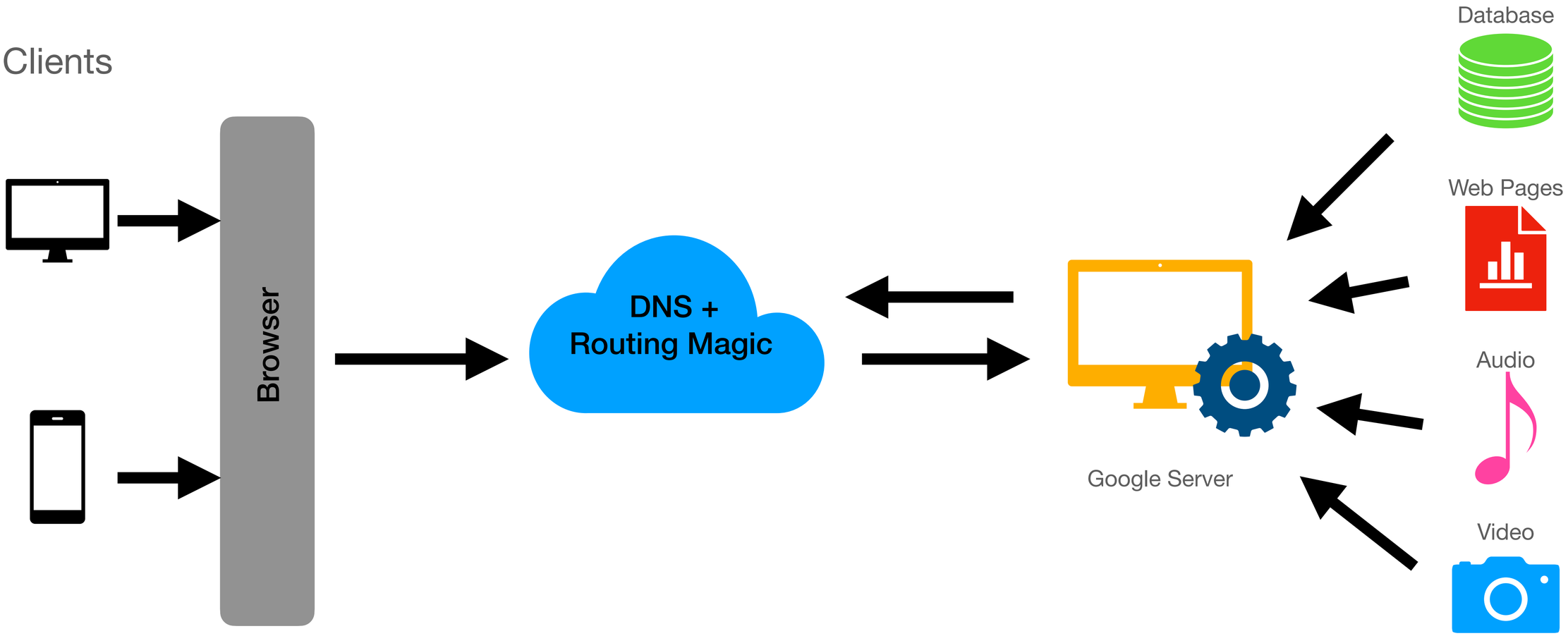
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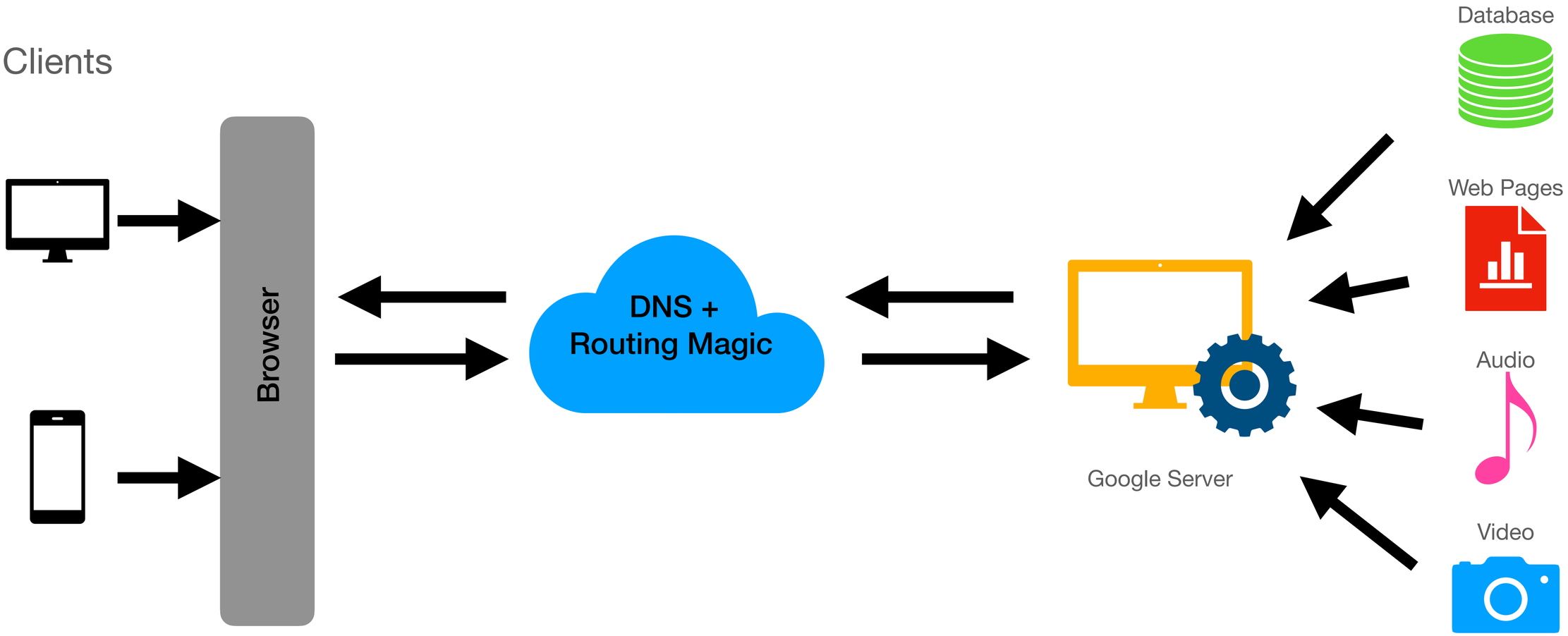
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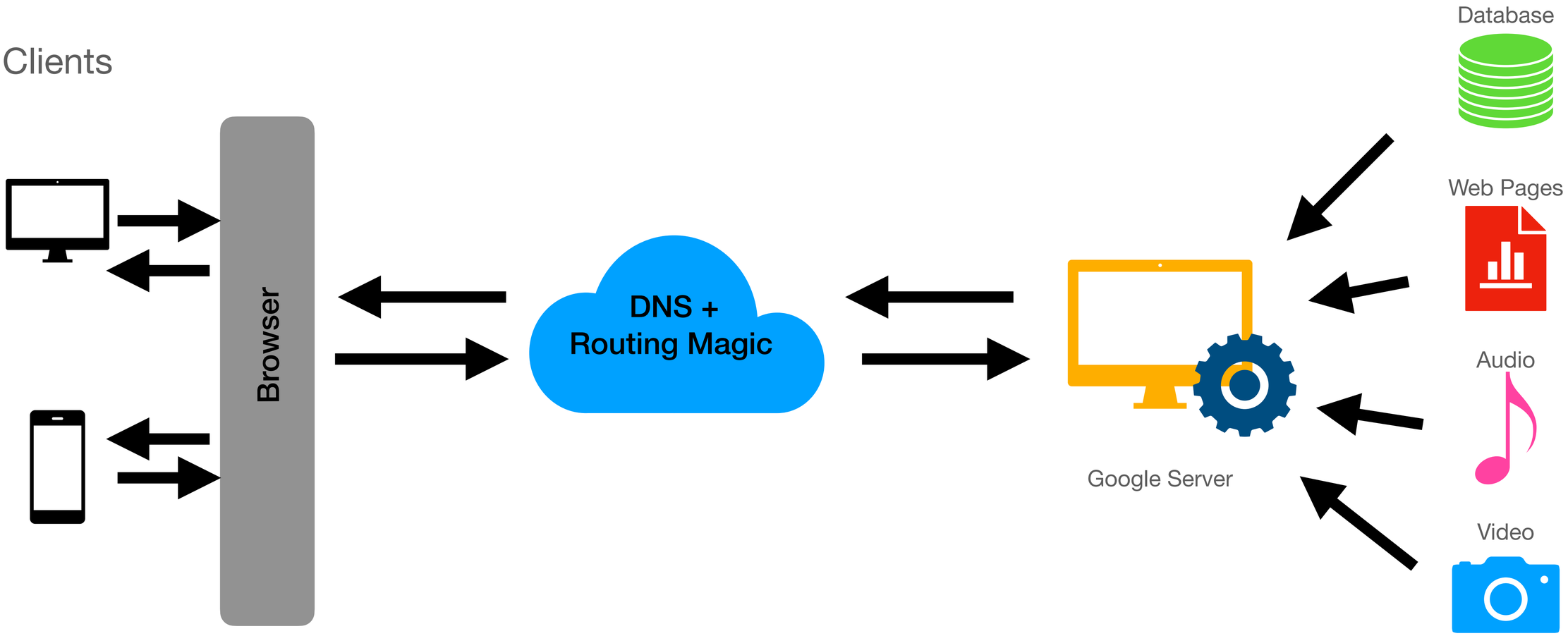
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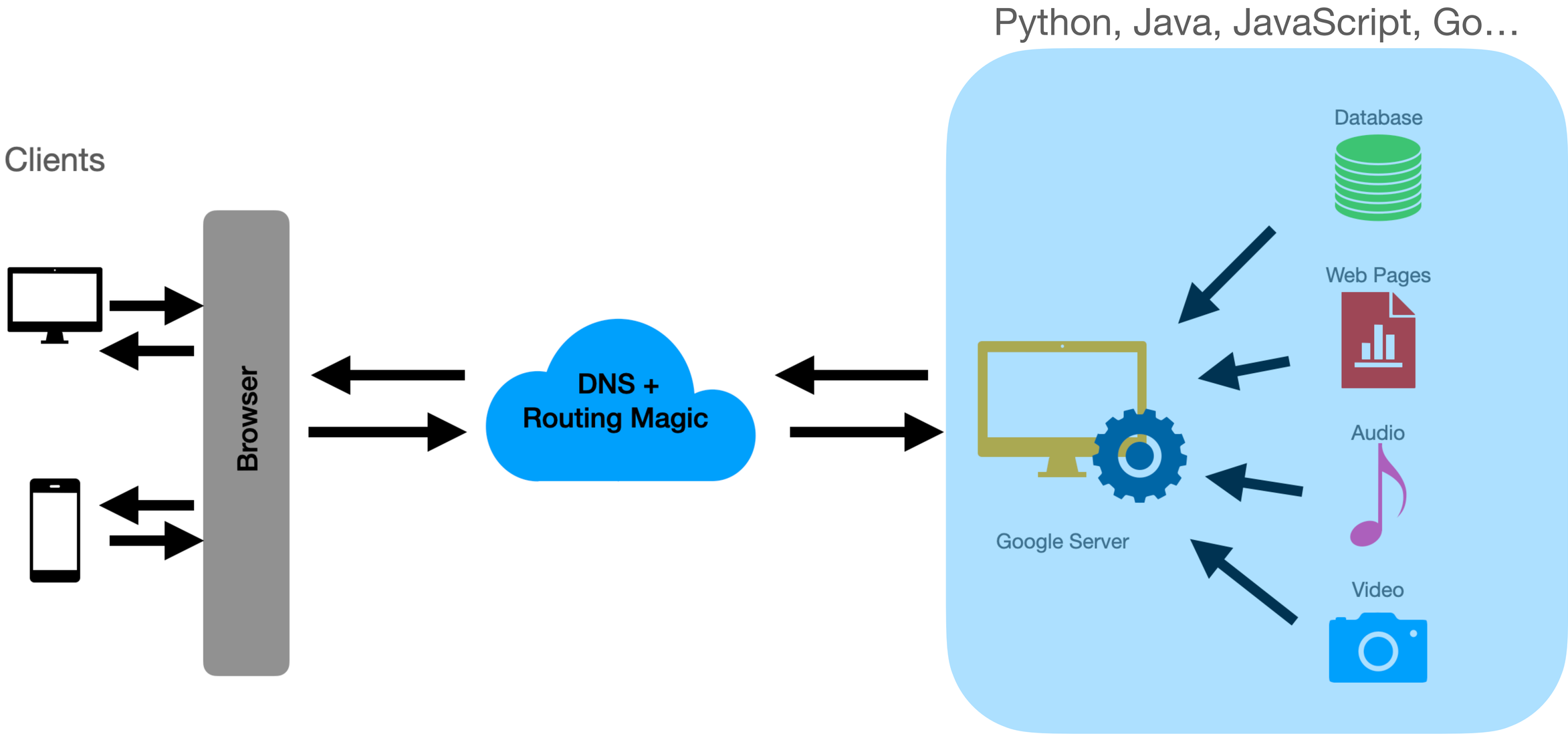
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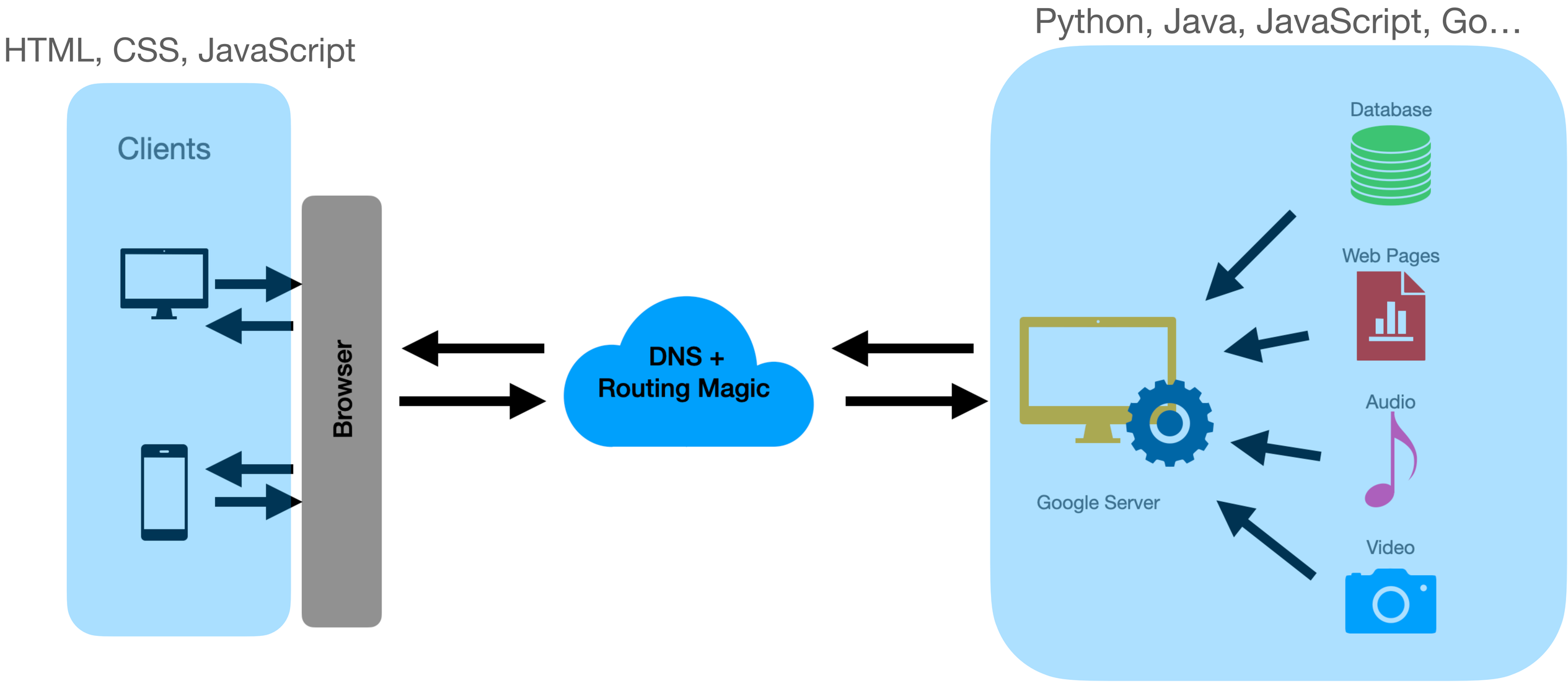
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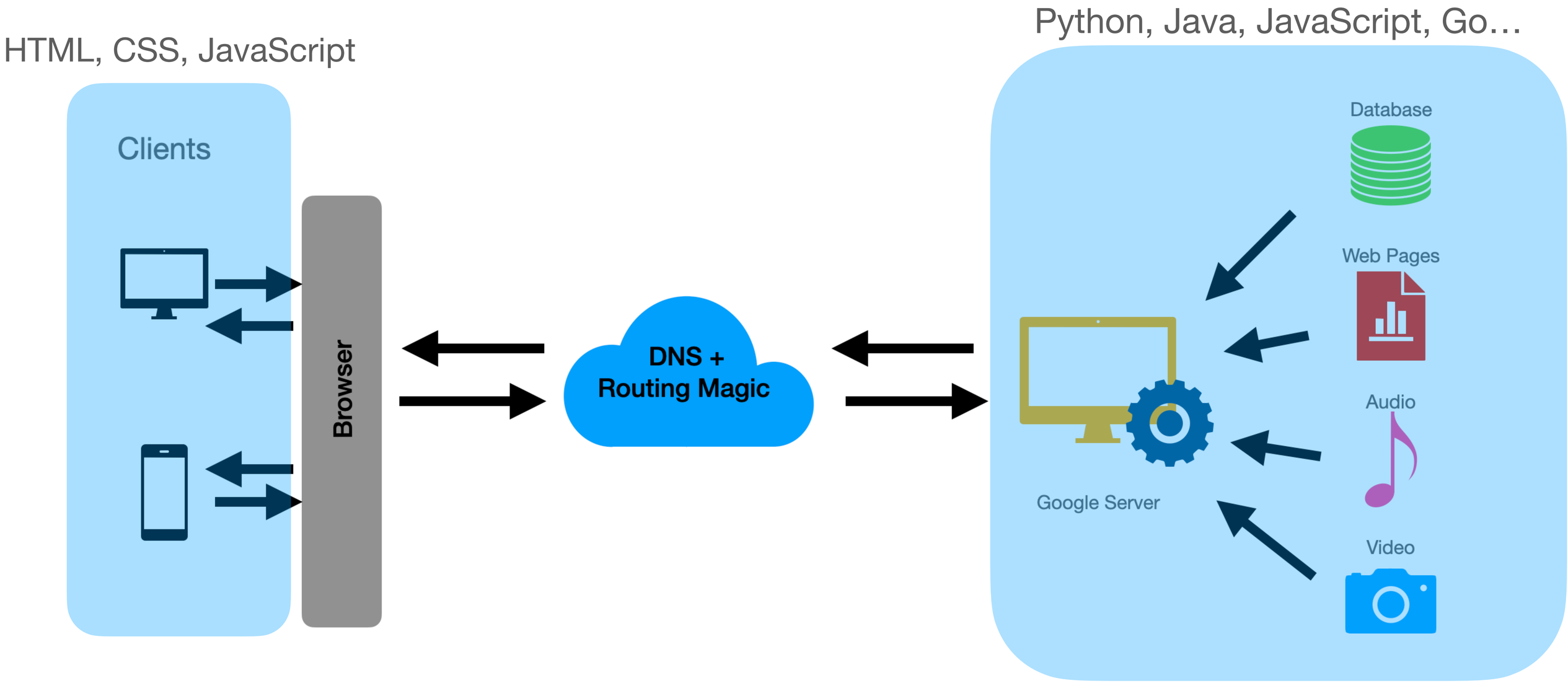
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Client Side Only

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- CSS - Beautifying the Web Page, Colors, Styles, Themes, Animations, etc.

JavaScript

Client Side and Server Side

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- Adding functionality to the web page

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Client Side and Server Side

- Adding functionality to the web page
- Client Side - Form Validation, Performing an action when a button is clicked
- Server Side - Reading data from the database, performing business logic

Client and Server can be on the same machine!

(Demo)

D3.js

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Data Driven Documents

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- Create graphics, animations based on data
- Can be used both the client side and the server side

Great Examples

https://observablehq.com/@d3/gallery

Scope of D3.js in DSE241

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- Use D3 to create simple, but effective and interactive visualizations
- Get a feel of how things happen “under the hood”
- Learn the basics of D3 through practical examples
- To realize the creative potential of D3 in creating visualizations