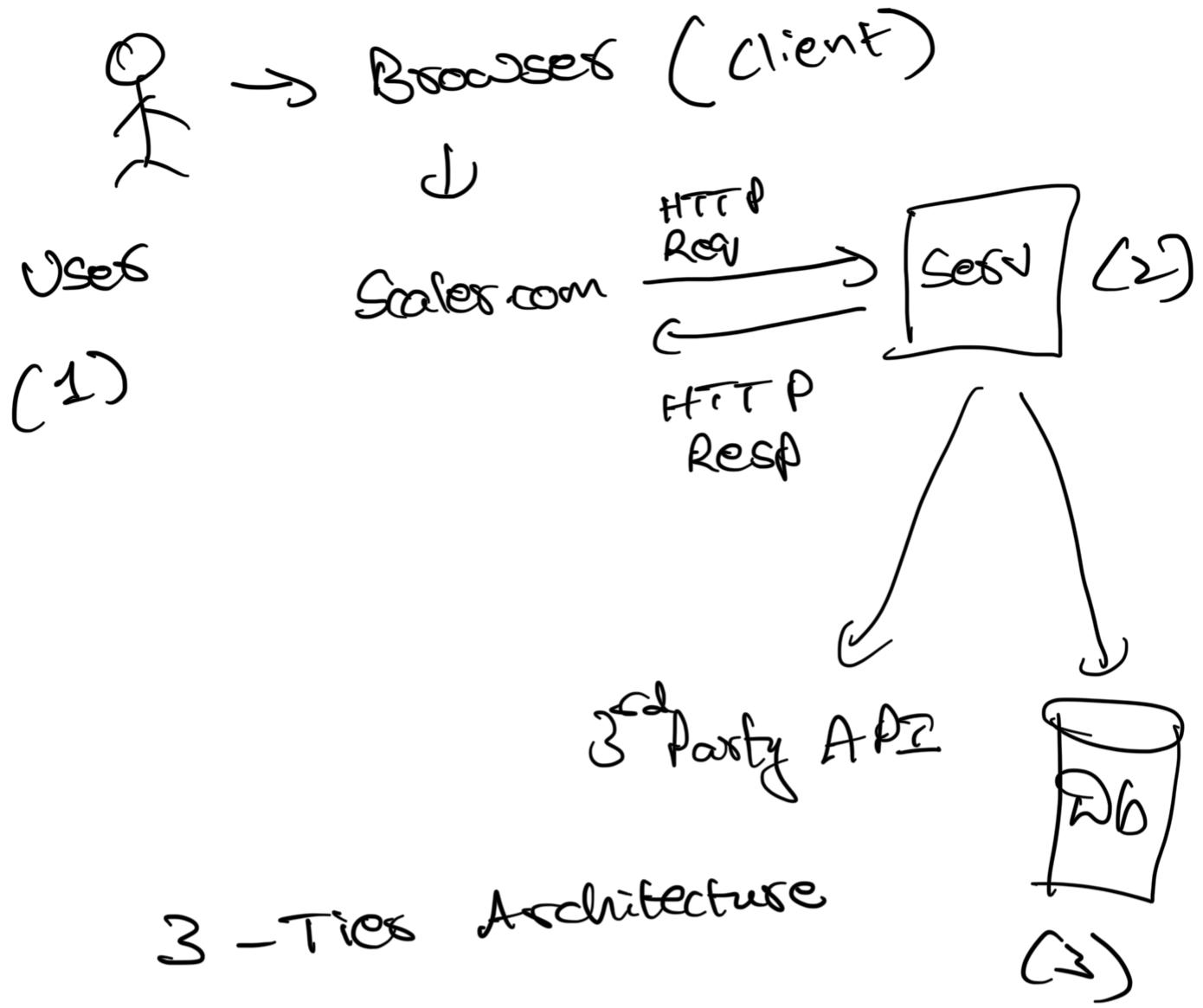


1. Web Fundamentals & Intro to HTML



Rich +
huge business +
huge customer
base

orders

customers

They place orders
regularly for
large products

↑

order
fulfilled

Operations
team

They handle
orders.

They record
customer req
accurately &
feed to prod
team

Record book
(DNS)

Selling
Team

Prod
Unit

Warehouse

Database

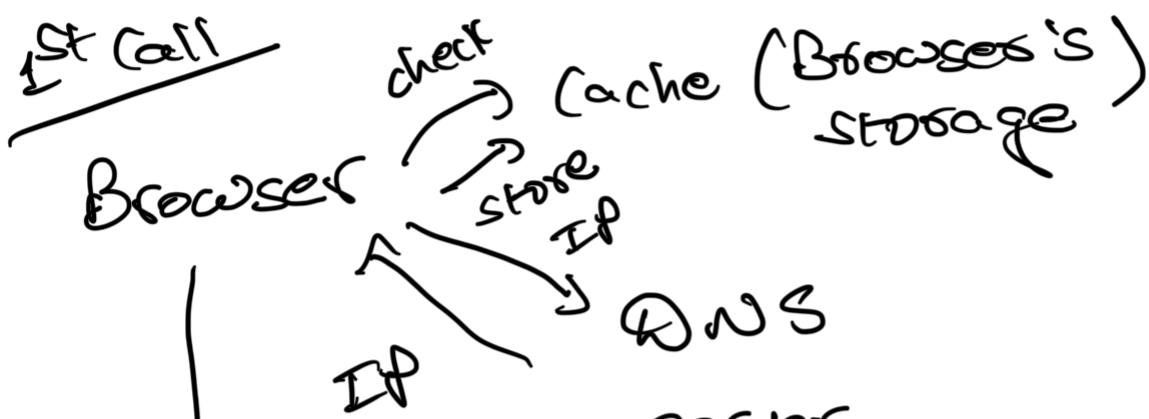
cust → client

Ops team → DNS

Domain Name
System

mapping Name to IP Address
(DNS Resolution)

Name	IP

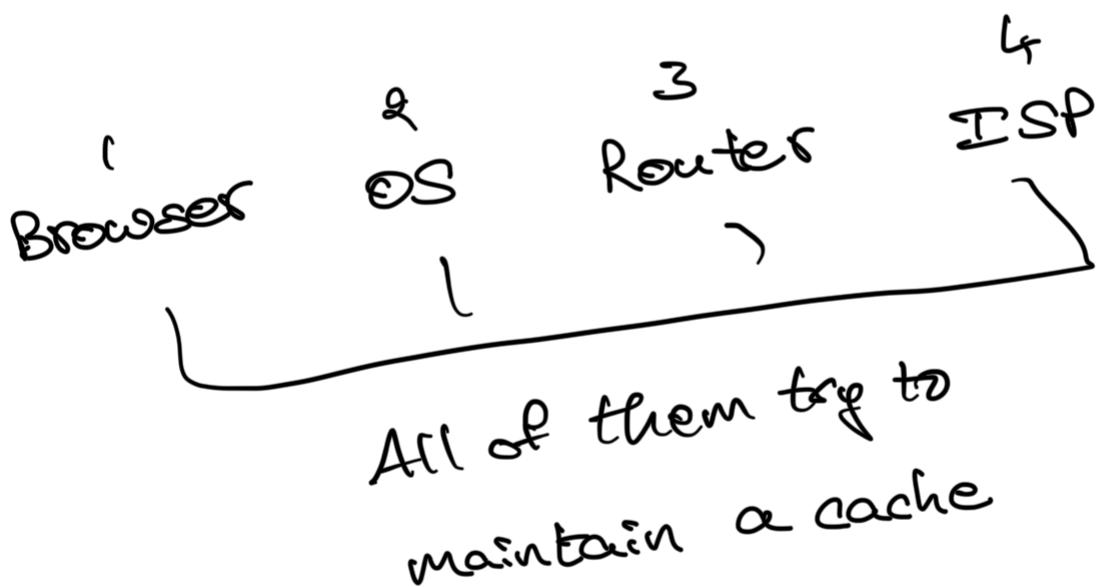


↓
Now browser
knows what
IP to connect
to.

DNS
Resolution

2nd call

Browser → Cache
fetches
IP



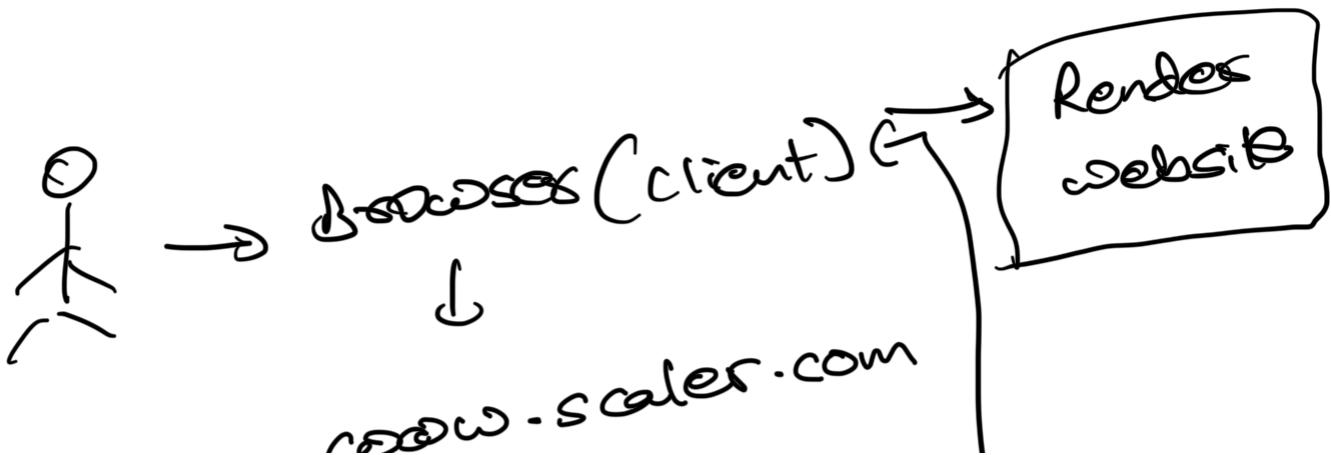
Firefox → about:networking#dnslook
up for
up to

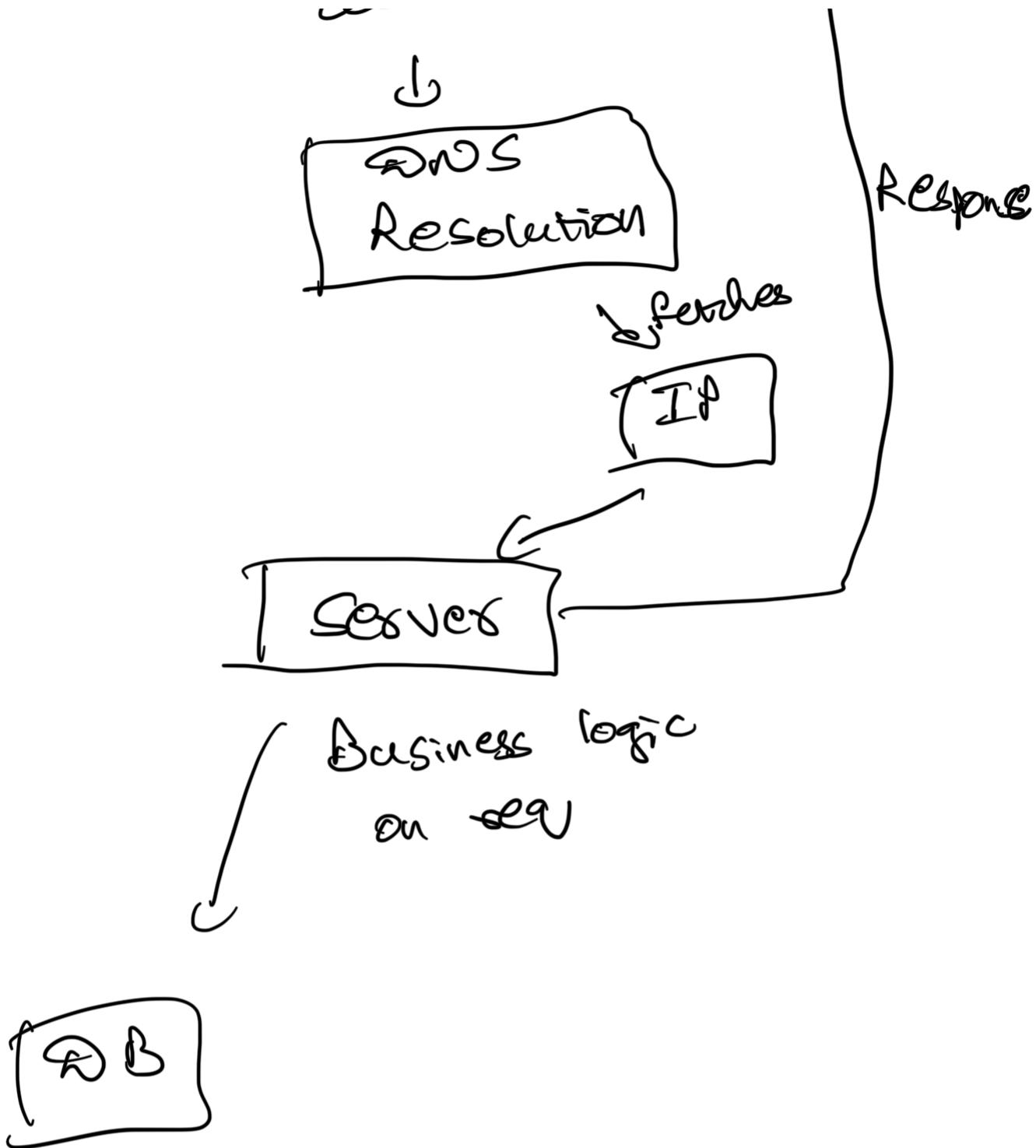
Chrome → chrome://net-internals/#dns

Amazon.com → can have multiple
IP addresses.

↓
Deployed
to multiple
servers (replicated)

Returns the list of IP addrs
that the browser connected to
in its lifetime.





IP Address → location of
server
where the
route is

www -
deployed

3-Tier Architecture
(HTTP architecture)

HTML | CSS

Construction Company → shopping mall

how do you start ?

→ map or blueprint : wireframes
/ web terms

↳
Designs
(Figma, Adobe XD)

Used to plan the functionality & UX for the app/website.

→ Create Structure : HTML
(structure of a web app)

skeleton of human body

→ Paint : CSS → makes website look beautiful
Cascading Style Sheet

shell

(How website
looks)

Mall is ready

Now adding functionality

→ parking

→ Escalators

→ JavaScript (JS)

(makes the app alive)

Adds interaction
to the website

Click on a button → what happens?

Any change you need
to do to a web page
on runtime based on
User Interaction

HTML + CSS + JS → Web
App

Browser understands HTML

index.html is entry point

HTML has tags

<head>

<h1> Heading 1 </h1>

<p> Paragraphs

HTML is case insensitive

``

↓ ↓ ↓
tag attributes value
 of the
 attribute

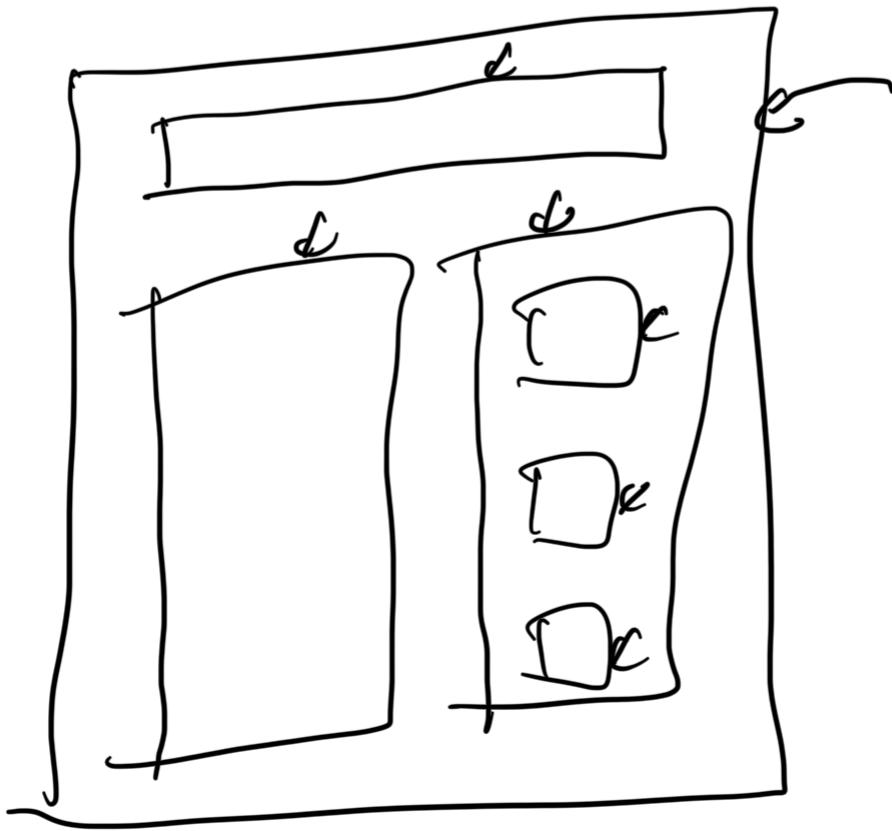
`alt` → Used to fetch image
displays the text.

`` → self enclosing tag

``

To create an entire app

You first visualize it



To organize | Structure HTML code,

`<div>`

Loewin & IO → Generates 10 random

lines of code in

VS Code.

`<a>` → Anchors tag → can add
hyperlink

` Text `

Every html element has by default
styling.

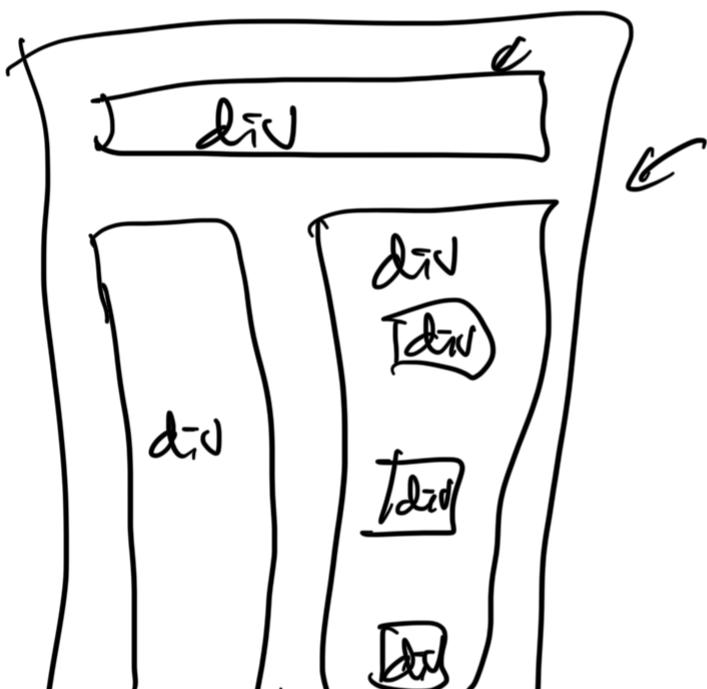
Other tags,

header

nav

aside

⋮





We can create the app using "divs".

Two types of tags in HTML,

Semantic Tags

Non-semantic Tags

Semantic → meaningful

Semantic Tags :

header

h1 --- h6

p

div

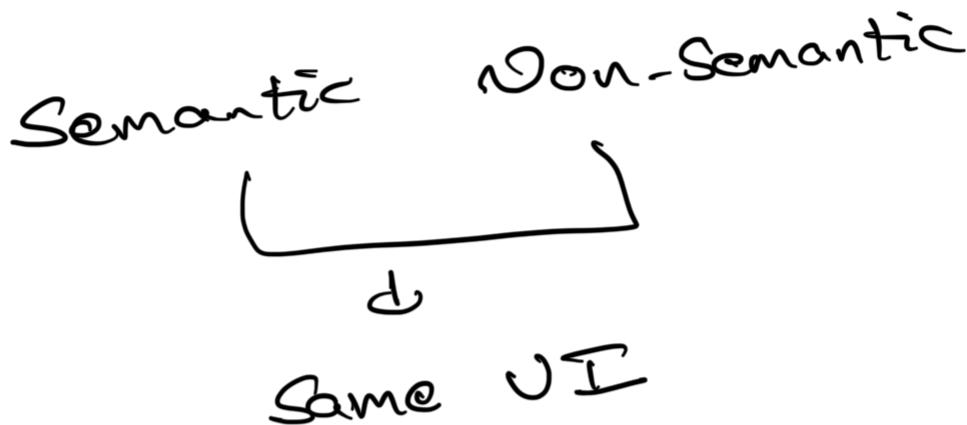
Non Semantic Tags:

div → No meaning to it.

Just a container

Span

From a user perspective nothing will change without non-semantic tags. The website will look exactly same.



→ Search Engine Optimization

SEO score,

higher for semantic
than

^{view}
non-semantic

A web crawler might understand semantic.

↓
tries to understand
what the content is

→ Accessibility

The screen will be able to
understand the content.

Similarly, other tools

Every website also has accessibility
score.

Non-functional advantages

-include,

Better code readability |

maintainability | extensibility