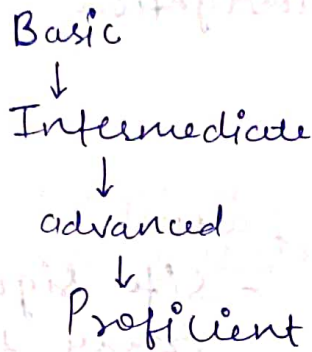


Web Design

#

Introduction



website

- * Informational
- * Websites are static.
- * user authentication is not needed to view informational websites

web application

- * Interactive
- * web apps are dynamic
- * Prompt the user to sign up before granting full access to the application

web design

- * uses HTML & CSS to structure & style ~~the~~ websites
- * overall look & feel of a website in terms of fonts, colour, images etc.
- * user experience & interface is the prime focus of the designer

web designer

- * Ensure that the website looks appealing to the user
- * focuses on content creation
- * user experience
- * colour schemes, images & content

web developer

- * Develops the backend code
- * focuses on functionality & usability
- * user interface
- * uses languages such as Java Script & PHP

#

4 - Stage of web design

Layout

- wireframes
- Graphics
- Text
- advertisement

Content

- content placement
- Navigation

Graphics

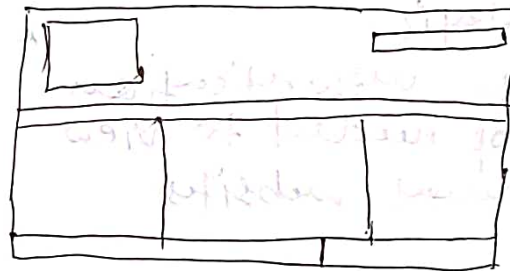
- colors
- fonts
- images
- weighing up functionality & content

Launch

- site signed off & ready to go live
- final testing completed
- Monitoring site hits

Wireframe

- * Basic layout of your website
- * ensure the layout is appropriate for your site before you begin work
- * allows you to play with the arrangement of elements to highlight important features



#

HTML (Hyper text Markup language)

basic structure

```

1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title> Hello world </title>
5    </head>
6    <body>
7  </body>
8  </html>

```

CSS (cascading style sheets)
describes how HTML ~~code~~ - will
appear in the web browser
fonts, borders, customising etc

JavaScript

Programming language used to add advanced
functionality to websites & develop computer
programs

a common language for client-side
interactions.

Important tags

- * `<!doctype>` - defines document types
- * `<body>` contains large majority of site data
- * `<!-- This is a comment -->`
- * `<head>` - contains document details
- * `<title>` - what will be shown on internet tabs
- * `<h1>` - formats text using bold & increased font
- * `<p>` - uniform format for general information

Comments (HTML & CSS)

- * commenting is used to explain what your
script is doing / supposed to do
- * comments can be used to place marks
for where you would like to change or
add something.
- * It allows anyone viewing your scripts
to be able to understand them

* HTML

`<!-- -->`

* CSS

`/* */`

- * <footer> Details such as footer
- * allow the use of image
- * <div> allows the addition of sections
- * <table> allows the creation of table
- * <tr> creates table rows
- * <th> create table headings

CSS syntax explained

selector property value

P { text-align : centre ; }

↓

declaration

The position property

property name

Description

- * static This is default position & will be positioned in sequential order
- * Relative Defines the element new position with help from elements such as top, bottom, left & right.
- * Fixed This means it stays in the same place even when the page is scrolled through. This prevents empty space on the page
- * absolute This element allows you to place the element anywhere on the web page by using the elements, top, bottom & left
- * sticky This is a mixture of fixed & relative. This is based on the user scroll

#

color codes

- * color codes are used to format color in a way that computers can read

- * The most commonly codes used are Hex colors codes made up of 6 digits
- * The 3 primary colors are Red, Green, & Blue
- * The hex code (RGB) represents Red, green, & blue by mixing the highest intensity of one color with the lowest intensities of the other two you can create any desired color.

 - list item

 - unordered list

<a> - creates hyperlink

Sidebar Static Navigation

- anchored to a section of the screen
- Simple flat navigation
- all links are visible at all times for easy use

Hamburger menu

- Top left corner of the UI (user interface)
- Toggles between a hidden menu & an expanded menu
- Resembles hamburger



Multimedia menu

- utilises media as links
 - Images
 - Videos
- Relies on visual to guide the user experience

Drop down menus

- This menu types allows items to be expanded into sub (smaller menus).
- This design works well on sites with a lot of menu options so as not to overwhelm users

#

layout

column layout

- simple & streamlined design
- simple navigation option
- Draw focus to the central elements of the website

Full screen Image

- using an image to cover the full screen
- Text/functionalities will be placed on top of this image
- user gets an immediate understanding of the site

Grid layout

- clear layout
- main elements of the site are linked together in a logical way.
- encourage uniformly & appropriate groupings.

Headline & Thumbnail

- Thumbnails are smaller representations of images
- user decide if they would like to see the image at its full size

#

Content

Key considerations:-

- * Design
- * user experience
- * visual design
- * structure
- * font or typography

Typography

- Render text in different ways
- There are thousands of different typographies.
- Measure by legibility & tone

What does serif mean?

defines a decorative line that decorates letter

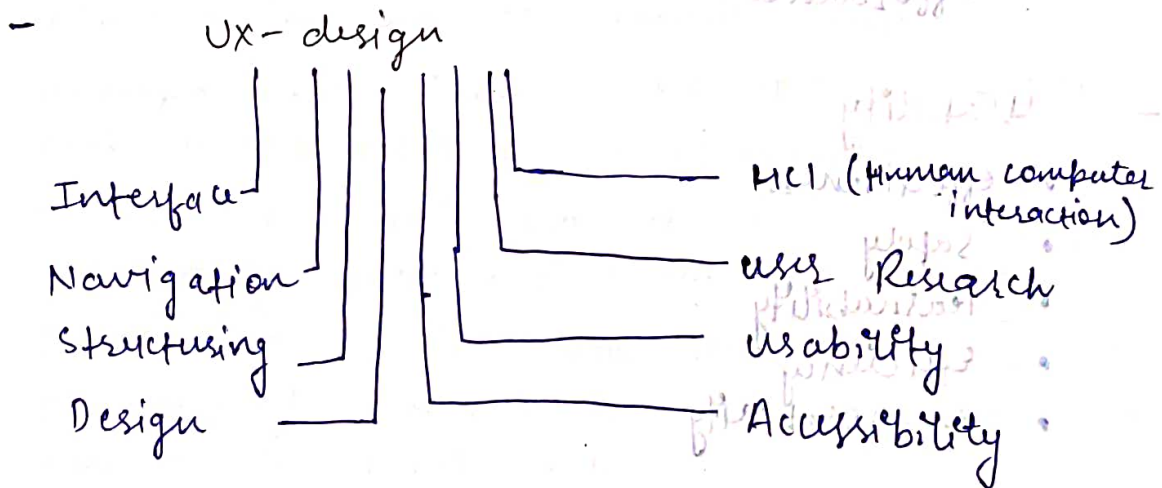
E

sans serif

E

serif

User-Experience



- Human computer interaction (HCI)

- Situations/environments in which technologies & people work together
- Designed to promote efficiency & productivity
- focuses on user experience goals.
- Studies have been conducted on the interaction to ensure the safety of human cognition & sensation

- User Research

- Why are users good & bad at
- How can you help them with the way they currently do things
- Think about what will provide a quality user experience
- Listen to people's wants & needs & get them involved in the design.
- Use tried & tested techniques in the design

- Design Principles

- visibility
- Feedback
- Constraints - input ^{or some information} by the ~~the~~ user is valid
- affordance

- Usability

- effectiveness
- safety
- learnability
- efficiency
- memorability

The rule of Seven

is

- The reason that all the items can be scanned visually.

- No more than seven options are key guidelines:

- short paragraph containing 2-3 sentences & separated by white space.

- clear visual hierarchy with the headings & subheadings.

- Short line of text, up to 80 characters.

- chunking was term introduced by Miller in his 1955 paper

#

Graphics

origin of color wheel

- designed by sir Isaac Newton in 1706
- Natural progression from Dark to light
- When the wheel spins at fast speeds the human eye sees white.

color schemes

- Complementary - colors that are opposite each other on the color wheel are considered to be complementary colors.
- Rectangle (Tetradic) - The rectangle uses four colors arranged into two complementary pairs.
- Analogous color schemes uses colors that are next to each other on the color wheel
- Triadic - A triadic color scheme uses colors that are evenly spaced around the color wheel
- Square - The square color scheme is similar to the rectangle, but with four colors spaced evenly around the color circle.
- Split complement - It is a variation of the complementary color scheme. In addition to the base color, it uses the two colors adjacent to its complement.

Color Psychology

- Evaluates the emotion/mental states as influenced by color
- Impacted by
 - Tone
 - Brightness
 - Tint
 - Shade

- Main color categories

- Warm
- Cool

- colors may be perceived differently in different cultures

• Blue

- * Power
- * authority
- * strength
- * Intelligence

• Green

- * Money
- * health
- * envy
- * calmness

• Brown

- * stability
- * mourning
- * organic
- * warmth

• ~~Energy~~ orange

- * enthusiasm
- * energy
- * Adventure
- * Fun

• Purple

- * Royalty
- * wisdom
- * mystery
- * Spiritual

• Red

- * Love
- * Romance
- * Comfort
- * energy

• Grey

- * Practical
- * Timless
- * Neutral

• Black

- * Power
- * authority
- * strength
- * intelligence

##

Launch

Domain Names Broken-Down:

Third level domain

second level domain

Top-level domain

www.

domain name

.com

URL (uniform Resource Locator)

• Third-Level Domain

- The third-level domain or subdomain is

most commonly WWW (world wide web)

- The WWW is a network of content that can be viewed online & is formatted in HTML & can be accessed via HTTP (Hypertext Transfer Protocol)

Second level Domain

- only include letters, numbers & hyphens
- It may not exceed 63 characters & may not be less than 3
- you may not breach another trademark or risk legal action.

Top level Domain

- This is the final section of a domain name
- originally use to indicate the category the site fits into.
- Management for the majority of top-level domains is specified by ICANN

I	- internet
C	- corporation for
A	- assigned
N	- names &
N	- numbers

Common Top level Domain Names

- .com - intended for businesses but has since been opened for more general purposes
- .net - typically used for internet service providers
- .org - generally used for non profit organizations

Common Top level Domains for organisations

- .edu - used only for ~~united~~ ^{accredited} educational institutions
- .gov - used only for united states government departments
- .mil - used only for the united states military

Domain Name Systems (DNS)

- vital part of the internet
- Did you know that there is a secret dot that you never type or see after your URL:
www.domainname.com.
- represents the root of the internet's name space

DNS Servers

- DNS servers are used to store database of public IP addresses along with their host names.

168.212.226.207

[10101000.11010100.11100010.11001100]

- They give customer a first impression based on wording/phrases used

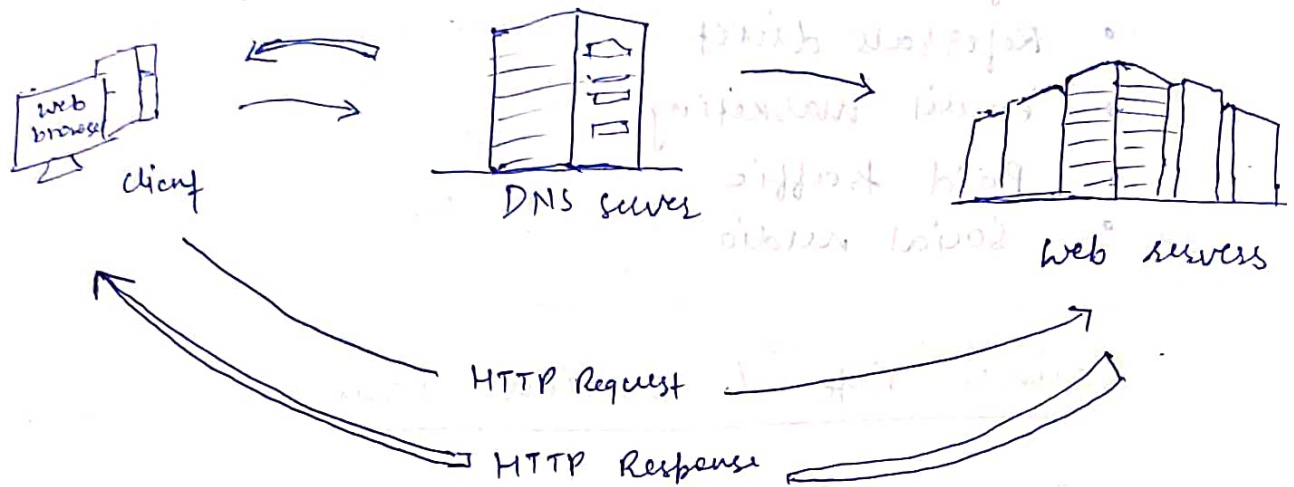
Web Servers

- Web servers are used to hold HTTP that are used to present files in the form of websites (HTML)
- Any computer can be used as a web-server

I want to
visit ~~you~~
www.yoursite.com
I'm sending
request

Let me tell them
that URL has IP no.
12.345.678.999

I got
12.345.678.999



Cache

- pronounced 'cash'
- used to store data from previous requests
- Increase response time

Measuring Success

- KPI (Key performance indicators)

• Google analytics - this is free software that allows to know how people find your site

* Measures:

- Dimensions - how many people & from where
- Metrics -

Web traffic

- traffic types

- organic
- Referrals direct
- email marketing
- Paid traffic
- Social media

Bounce Rate & session Time

- Bounce Rate

- a user visit your site & leaves without interacting with the page.

- session time

- calculated with one of two formulas
 - 1 page: (last page hit on page) - (first page hit on page)
 - Multiple pages: 1 page: (last page hit of visit) - (first page hit of visit)

conversion Rates

- Measure the amount of users who perform the action the website was designed for

- if the site has 200 visitors & 25 people buy the products the calculation would be as follows

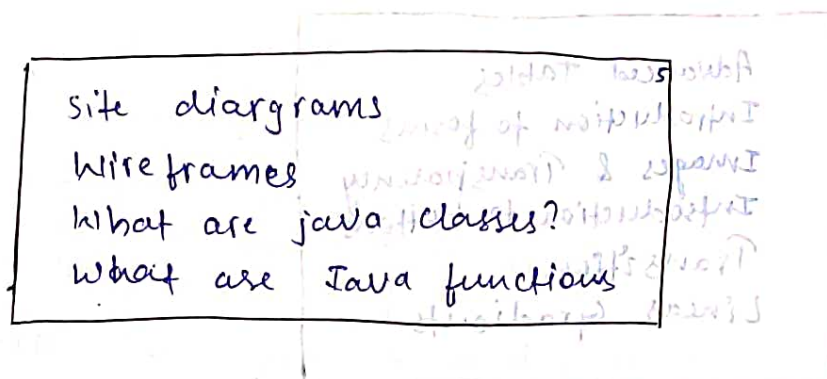
$$\frac{25}{200} = 12.5\%$$

Profits & Return on Investments

- Profit : money made after all expenses have been paid
- ROI : evaluates the gain or loss to the investment relative to the money invested.

$$ROI = \frac{(\text{Current value of investment} - \text{Cost of investment})}{\text{Cost of investment}}$$

CV-Part-1



Java

- first released by "Sun" microsystems in 1995
- many websites/applications won't function without java installed
- Java is fast secure & reliable
- It can be used for desktop computer, gaming etc.

Java functions

- Segments of java script
- function will be within `<script tag>` tags.
- functions need to be called (invoked) within HTML
- ex - `function name(P1, P2) { 'action to be taken' }`

- `<script>` → take that putting some java script

```
function openNav() {
```

```
  document.getElementById("mySidenav").style.display = "block";
}
```

```
function closeNav() {
```

```
  document.getElementById("mySidenav").style.display = "none";
}
```

6. cv-part-2

400 billion active websites
7.7 billion people on the planet

Advanced Tables
Introduction to forms
Images & Transparency
Introduction to buttons
Transition
Linear Gradients

```
<div>
  <label for = "msg"> your message : </label>
  <textarea id = "msg" name = "msg-message"> </textarea>
</div>
```

#

Roadmap

web-design



web development



Graphic design



Social media marketing



Digital marketing



mobile app development

Images Galleries
Column layout
Responsive Design

```
@media screen & (max-width: 600px) {  
  .column {  
    width: 100%;  
  }  
}
```

How to get your CV just right

— Who are you?

- Personal profile

Key points:

- who are you?
- What do you have to offer?
- What are your goals?

NB* Tailor your CV to the specific job you are applying for! (work according to their need)

- Personal information

Key points

- full name
- location
- email
- contact numbers
- linked in

- Education

- Institute name
- Qualification name/level/years
- Special achievements
- Modules specific to the job

Key skills

- key words

Limit the list

- Read the job advertisement

Don't forget soft skills

• checklist Before you apply

- spell check
- consistent formatting (don't start with 1 font & end with same all through)
- last modified
- check references
- Read the job description again!

cv-part-4

Testimonials
Rounded Images
Key Skills Bars

border-radius: 50px;
(for circling image)

module-2

HTML 5 & CSS3
introduction to Web 3.0

#

File Paths

- Starting with "/" returns to the root directory & starts there
- Starting with "../" move one directory backwards & start there
- Starting with "../.." moves two directories backwards & start there (& so on)
- to move forward, just start with the first subdirectory & keep moving forward

To install anything on cmd

npm install atom-beautify

Progression of the web

Web 1.0

- The first stage of web
 - Static websites
 - No interaction
- No user generated content

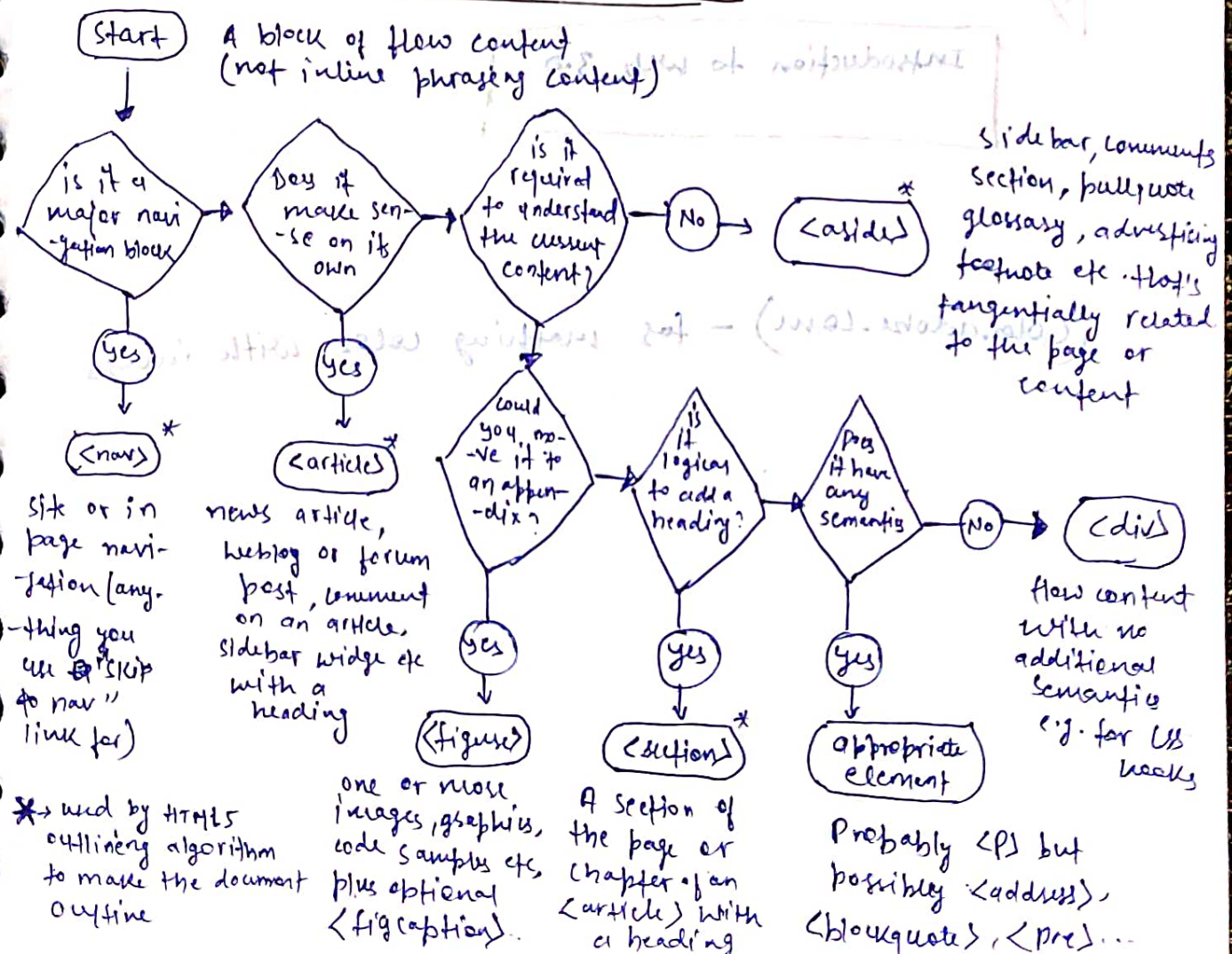
Web 3.0

- The Semantic web
- Connective intelligence
- Connecting data concepts, applications, & people
- The HTML5 language update has made the Semantic web possible

Web 2.0

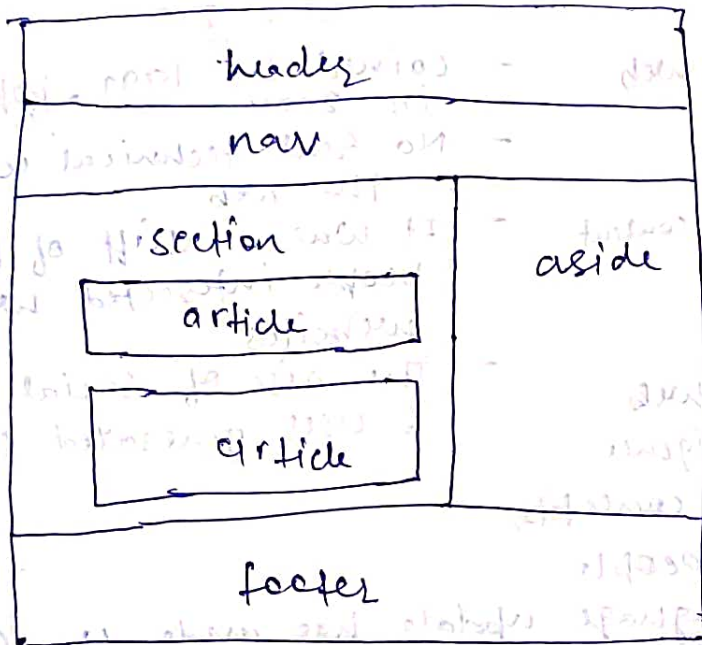
- Coined in 1999, popularised in 2004
- No real technical update to the web
- It was a shift of how people interacted with websites
- The rise of social media & user generated content

HTML5 Element flowchart



Semantic HTML Tags

<Header> <article>
 <Nav> <aside>
 <section> <footer>



~~Start~~

Introduction to web 3.0

(color.adobe.com) - for making color with images

