| **Term** | **Definition** | **Slide** |
| --- | --- | --- |
| Internet | A collection of interconnected devices which are spread across the globe, including computers, internet routers, basically any device that connects to the global network | 6 |
| IP | Internet Protocol: a unique address assigned to every device on the Internet (public) or network (private) | 6 |
| IPv4 | IP version 4. v4 IPs (which can be public or private) consist of 4 numbers (from 0 to 255) separated by 3 dots, eg. 192.168.0.0.1 | 7 |
| LAN | Local Area Network: a private network, usually local to house or building, consisting of all connected devices | 7 |
| localhost | A reserved domain, usually mapped to the local IP 127.0.0.1, which refers to the current computer, ‘looping back’ to it in order to access any websites hosted there | 8 |
| port | A number that uniquely identifies a running process or service that can be used to connect to it | 9 |
| client | The computer in a network that sends a request and interprets the response | 10 |
| server | The computer in a network that receives and handles a request, returning a response | 10 |
| request | A message sent from a client via HTTP to server, potentially containing information about what kind of response is expected | 10 |
| response | A message sent from the server back to the client who sent a request, containing a status code and the information that was requested | 10 |
| metadata | Extra information about the request or response, often sent as a header | 10 |
| stream | A special type of request-response connection that remains open while the server progressively sends more and more of a large file, usually video or audio | 10 |
| HTTP | HyperText Transfer Protocol: a way of communicating based on the Request/Response model to exchange data over the internet | 11 |
| HTTPS | A securely encrypted version of HTTP that prevents requests/responses from being intercepted | 12 |
| URL | Uniform Resource Locator: a formatted string that uniquely identifies a resource and the server where it is available on the internet | 13 |
| Domain name | A unique, easy-to-remember address used to access a website. The domain is mapped to the IP of the server hosting the website | 13 |
| path | Part of the URL that comes after the domain name, specifying the location of a resource (often a webpage or image) | 13 |
| website | A collection of web pages and related content that is identified by a common domain name and published on a web server | 14 |
| webpage | A structured document written in HTML that belongs to a website | 14 |
| host | Another term for the server where the website is hosted | 15 |
| browser | A program such as Chrome, Firefox, Safari or Edge responsible for sending requests to a web server and interpreting the HTML/CSS/JS response sent back in order to display it | 16 |
| HTML | HyperText Markup Language: the standard language for creating web pages, which describes the content and structure of the document. | 16 |
| shimming | The process of intercepting the normal interpretation of a piece of code and substituting alternative behavior, usually to fix an error or add unsupported features | 19 |
| polyfilling | A type of shimming used to add modern features to older browsers that don’t natively support them | 19 |
| tag | The building blocks of HTML, which can be nested inside each other to form the HTML document, and begin and end with <> (angle brackets). Common examples include <body>, <div> | 22 |
| element | Everything inside the beginning and ending tag, including the opening and closing tags themselves | 22 |
| attribute | Part of a HTML tag providing extra information about the element in the form of a name-value pair, for example the href for a hyperlink (anchor) or the src for an img. Tags can have multiple attributes separated by spaces | 22 |
| DOM | Document Object Model: the in-memory representation of the HTML structure for a page, managed by the browser, which can be manipulated by JS using the DOM API | 23 |
| id | A HTML attribute that can be added to any tag to give it a unique identifier, which can then be used by CSS or JS | 24 |
| class | A HTML attribute that can be added to any tag to give it one or more classes, which can then be used by CSS or JS | 24 |
| Browser inspector | Also called a Developer Inspector, or devtools. A feature of all modern browsers that allows developers access to a range of useful things to examine, understand and debug their code, including ‘inspecting’ the running HTML, CSS and JS in the browser | 25 |
| head | A HTML element defining the metadata for the page, which describes the document and is not visually displayed | 27 |
| meta | HTML tag used in the head section to define a piece of metadata about the page, including things such as character set, viewport, description, keywords, etc | 27 |
| link | HTML tag used in the head section, usually used to link an external CSS stylesheet | 27 |
| title | HTML tag used in the head section, used to define the title of the page as displayed in the browser tab | 27 |
| script | HTML tag used in the head or body section, used to define external or internal JS code | 27 |
| style | HTML tag used in the head section, used to define internal CSS code | 27 |
| Block element | A block element occupies the total available width of its parent, and will stack vertically with other elements | 28 |
| div | Generic block-level HTML tag | 28 |
| Inline element | An inline element occupies only the width its content requires, and will sit horizontally next to other elements | 29 |
| span | Generic inline-level HTML tag | 29 |
| br | HTML tag used to force a line break, ideally used only for applying strict formatting to text and not for layout | 30 |
| Self-closing tag | A HTML tag that has no children inside it, and opens and closes within a single tag, using a slash at the end, e.g. <br/>, <hr/> | 30 |
| Semantic element | A HTML element that describes its meaning to the browser, search engine and the web developer, e.g. <h1>, <p>, <nav> | 31 |
| header | A HTML tag containing introductory content at the top of the page, often including navigation, logo, branding, search form, primary contact details | 33 |
| nav | A HTML tag containing a section of the page providing navigation links such as a menu | 33 |
| main | A HTML tag containing the main content area inside the body of the document | 33 |
| section | A HTML tag containing a generic standalone section within the document, each of which should usually contain a heading tag | 33 |
| article | A HTML tag containing a self-contained, independent and reusable content such as a blog post, product, comment, newspaper article or card | 33 |
| aside | A HTML tag containing sidebar or callout box content indirectly related to the main content | 33 |
| footer | A HTML tag containing content at the bottom of the page typically containing copyright info, legal links, contact details or other related links. | 33 |
| heading | Headings range from level 1 to level 6, lessening in importance as the number increases. Represented with heading tags eg <h1> | 34 |
| entity | A special string that starts with & (ampersand) and ends with ; used to display reserved or other special characters | 36 |
| ul | HTML tag used to display unordered lists of items, usually a list of bullet points | 37 |
| ol | HTML tag used to display ordered lists of items, usually an automatically numbered list | 37 |
| li | HTML tag for displaying a list item, either in an ordered or unordered list | 37 |
| <em> | HTML tag used to markup emphasized text, which usually displays in an italic font (not to be confused with the CSS unit of the same name) | 38 |
| strong | HTML tag used to display strongly weighted text, which usually appears in bold | 38 |
| Description list | The <dl> HTML tag, used to display a list of terms (dt) with details (dd) | 39 |
| quotation | Represented by the HTML tags <blockquote> for larger block-level quotes spanning multiple lines, and <q> for smaller in-line quotes | 39 |
| hyperlink | A clickable link that will load content from a URL defined in the href attribute. Represented by an anchor tag (<a>) | 40 |
| comment | Special HTML syntax used to document, point out something unusual, tricky or unresolved, or clarify the start/end of various sections. Not interpreted or displayed by the browser | 41 |
| img | HTML tag to display an image, by specifying its URL source with a src attribute | 43 |
| video | HTML tag for displaying an interactive video, by specifying its URL source with a <source> tag | 44 |
| audio | HTML tag for displaying a controllable audio file, by specifying its URL source with a <source> tag | 44 |
| table | HTML tag to display a table containing data split into rows and columns. Not to be used for layout, but good for consistent display of grid-based data. Uses nested row (tr) and column (td) tags | 46 |
| form | HTML tag to display a form containing one or more inputs to be filled in by a user, with the input data then sent to a server for processing | 47 |
| iframe | HTML tag that allows us to embed content of another web page  within our web page | 48 |
| canvas | HTML tag that allows us to paint arbitrary shapes, graphics and animations | 49 |
| CSS | Cascading Style Sheets: a language for styling elements written in a markup language such as HTML, to specify how they should appear when viewed | 53 |
| selector | CSS Selectors are used to target or define the HTML elements that you want to style, using 4 main types: class, type, id and attribute | 54 |
| combinator | A combination of selectors that targets HTML elements at a particular position within the DOM, relative to their parents | 55 |
| pseudo-class | A CSS selector that allows us to style elements in a certain state, e.g. a link that is hovered | 55 |
| pseudo-element | A CSS selector that allows us to style certain parts of HTML elements, e.g. first line of a paragraph or generate content before or after an element | 55 |
| !important | A special CSS keyword that can be added to any rule to force it to take precedence over any other rules for that property | 56 |
| initial | A value that can apply to any CSS property, used to set the value of the property to its default value | 59 |
| inherit | A value that can apply to any CSS property, used to make an element inherit the property value from its parent | 59 |
| px | A small fixed unit of measurement in CSS, used to specify a size in pixels (the smallest unit in a digital display, 1/96 of an inch) | 60 |
| pt | A small fixed unit of measurement in CSS, usually used to specify font sizes similarly to a text editor (1/72 of an inch) | 60 |
| em | A relative unit of measurement in CSS, equal to the same size as the font of the parent element (not to be confused with the HTML tag <em>) | 60 |
| rem | A relative unit of measurement in CSS, equal to the same size as the font of the root (html/body) element | 60 |
| vh | A relative unit of measurement in CSS, used to specify height in relation to the height of the viewport, where 100vh is the same size as the current viewport height | 60 |
| vw | A relative unit of measurement in CSS, used to specify width in relation to the width of the viewport, where 100vw is the same size as the current viewport width | 60 |
| viewport | The area of a web page visible to the user without scrolling | 60 |
| display | CSS property to define the display model for an element, using values such as block|inline|inline-block|flex|grid | 61 |
| position | CSS property to define the way an element is positioned relative to the page. Often used together with top|bottom|left|right positioning offset values | 62 |
| font | The specific style of text displayed on a webpage. Can be controlled using CSS properties such as font-family (or typeface), font-style (italic or normal) font-weight (bold) | 64 |
| serif | A slight projection finishing off a stroke of a letter in certain typefaces/fonts. A sans-serif font does not include these serifs. | 64 |
| background | CSS property controlling various aspects of the background of an element, including images, colors, gradients, transparencies, positioning, etc | 65 |
| calc | CSS function for calculating numeric values, often used to ensure responsive content using a mix of percentage and fixed widths | 68 |
| float | Legacy CSS property used to lay out block elements horizontally | 70 |
| Box model | CSS model used to calculate the size of a block element (a ‘box’). Controlled via the box-sizing property, options are content-box (default) or border-box (more intuitive) | 72 |
| overflow | CSS property to control how content should behave if it is too big to fit in its container, options include hiding, scrolling, overlaying | 73 |
| Margin collapsing | Default behavior of sibling block elements that collapses multiple margins into a single value | 74 |
| flexbox | Modern display model applied with display: flex for applying responsive layout to block elements. Can be customized using various properties | 75 |
| justify-content | CSS property used with a flexbox display model to control the alignment of items along the main axis (usually the horizontal) | 76 |
| align-items | CSS property used with a flexbox display model to control the alignment of items along the secondary axis (usually the vertical) | 76 |
| grid | Modern display model applied with display: grid for applying grid-based layout to block elements. Can be customized using various properties to control multi-row layouts | 78 |
| grid-template | CSS property used with a grid display model to define the number and proportional size of rows and columns in the grid | 79 |
| fr | Fractional CSS unit used with grid items to define proportional widths/heights | 79 |
| variable | Used in CSS to name a certain value in the root element which can be re-used throughout the stylesheet, often used to define a consistent color palette | 83 |
| responsive | A webpage that responds appropriately when viewed in devices of different sizes, eg. phone vs laptop, by automatically adjusting item widths and repositioning various elements | 84 |
| mobile-first | Modern method of designing and building webpages primarily for viewing on mobile screens, then adjusting as necessary for larger desktop screens | 86 |
| desktop-first | Traditional method of designing and building webpages primarily for viewing on larger desktop/laptop screens, then adjusting as necessary for smaller mobile screens | 86 |
| Media query | A CSS rule that targets devices that match certain constraints, often regarding the width, using the @media rule, and applies certain properties only to those devices | 87 |
| breakpoint | A defined screen width at which different media queries are activated, used to apply different responsive behavior for phones vs tablets vs laptops | 88 |
| Reset CSS | A lightweight file of well-tested CSS rules to simplify development and maintain consistency across browsers | 90 |