

HTML Complete Cheat Sheet

1. بنیادی ڈھانچہ (Basic Document Structure)

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Page Title</title>
</head>
<body>
  <!-- content here -->
</body>
</html>
```

- `<!DOCTYPE html>` — HTML5 document declaration.
- `<html lang="...">` — SEO + accessibility.
- `<meta charset="utf-8">` — حرفی انکوڈنگ، بمیشہ شامل کریں۔
- `<meta name="viewport">` — responsive behavior کے لیے ضروری ہے۔

2. عام ہیلپر ٹیکسٹ

- `<!-- comment -->` — تبصرہ
- `<!DOCTYPE html>` — doc type
- `<!-- meta tags -->` — SEO اور sharing کے لیے

3. سرخی اور متن (Headings & Text)

- `<h1> ... <h6>` — headings (h1 سب سے important)
- `<p>` — paragraph
- `
` — line break (self-closing)
- `` — bold (semantic emphasis)
- `` — presentational bold
- `` — italic emphasis
- `<i>` — presentational italic
- `<small>` — smaller text
- `<mark>` — highlighted text

مثال:

```
<h1>Welcome</h1>
<p>This is a <strong>strong</strong> word and this is <em>emphasized</em>. </p>
```

4. لinks (Links)

- `link text`
- Attributes: `target="_blank"` (new tab), `rel="noopener noreferrer"` (security for external links), `download` (download file)

مثال:

```
<a href="https://www.youtube.com/@CodeWithNisar" target="_blank" rel="noopener noreferrer">Visit</a>
```

5. تصاویر (Images)

- `` — alt عنصر (accessibility & SEO).
- `loading="lazy"` — lazy loading
- Responsive: `srcset` اور `<picture>`

مثال:

```

```

```
<picture>
  <source media="(min-width:800px)" srcset="image-large.jpg">
  <source media="(min-width:400px)" srcset="image-med.jpg">
  
</picture>
```

6. لسٹس (Lists)

- Ordered list: `Item`
- Unordered list: `Item`
- Definition list: `<dl><dt>Term</dt><dd>Definition</dd></dl>`

مثال:

```
<ul>
  <li>HTML</li>
  <li>CSS</li>
</ul>
```

7. ٹیبلز (Tables)

- Structure: <table><thead><tbody><tfoot><tr><th><td>
- Accessibility: use <caption> اور proper <th scope>

مثال:

```
<table>
  <caption>Students Scores</caption>
  <thead>
    <tr><th scope="col">Name</th><th scope="col">Score</th></tr>
  </thead>
  <tbody>
    <tr><td>Alee</td><td>95</td></tr>
  </tbody>
</table>
```

8. فارم اور انپیس (Forms & Input Types)

- Basic: <form action="/submit" method="post">
- Common inputs:
 - text, password, email, tel, url
 - number, range
 - date, datetime-local, time, month, week
 - checkbox, radio
 - file — file upload
 - hidden
 - search
 - color
- Attributes: required, placeholder, min, max, step, pattern, readonly, disabled, multiple
- label — always pair inputs with <label for="id"> for accessibility
- autocomplete — help browser autofill

مثال:

```
<form action="/signup" method="post">
  <label for="email">Email</label>
  <input type="email" id="email" name="email" required>

  <label for="age">Age</label>
  <input type="number" id="age" name="age" min="0" max="120">

  <button type="submit">Sign up</button>
</form>
```

فائل اپلوڈ اور فرم ڈیٹا 9.

- enctype="multipart/form-data" required for file uploads

```
<form action="/upload" method="post" enctype="multipart/form-data">
<input type="file" name="avatar">
</form>
```

میڈیا: آڈیو اور ویڈیو 10.

- <audio controls src="audio.mp3">Your browser doesn't support audio.</audio>
- <video controls width="600" src="video.mp4">Fallback text</video>
- Attributes: controls, autoplay, muted, loop, playsinline, poster

مثال:

```
<video controls width="480">
<source src="video.mp4" type="video/mp4">
<source src="video.webm" type="video/webm">
Your browser does not support the video tag.
</video>
```

11. Semantic HTML5 عناصر

- <header>, <nav>, <main>, <section>, <article>, <aside>, <footer>, <figure>, <figcaption>, <details>, <summary>, <mark>, <time>
- Use semantic tags for accessibility and SEO.

مثال:

```
<header>
<nav><!-- links --></nav>
</header>
<main>
<article>
<h2>Blog post</h2>
</article>
</main>
<footer>© 2025</footer>
```

12. Global Attributes (عام attributes)

- id, class, style, title, data-* (custom data attributes), hidden, tabindex, contenteditable

مثال:

```
<div id="hero" class="container" data-theme="dark" hidden>Hidden content</div>
```

13. ARIA اور Accessibility (a11y)

- استعمال کریں ARIA جب نا ممکن ہو تو
 - role="button", aria-label="Close", aria-hidden="true", aria-live وغیرہ۔
- Ensure labels for form controls, keyboard navigability, contrast, alt attributes

مثال:

```
<button aria-label="Close dialog">x</button>
```

14. Meta Tags (SEO & Social)

- Charset, viewport already ذکر ہو چکا
- SEO: <meta name="description" content="short description">
- Open Graph (Facebook, LinkedIn)
 - <meta property="og:title" content="...">
 - <meta property="og:description" content="...">
 - <meta property="og:image" content="...">
- Twitter Card
 - <meta name="twitter:card" content="summary_large_image">

15. Scripts CSS اور شامل کرنا

- External CSS: <link rel="stylesheet" href="style.css"> (in <head>)
- Inline CSS: <style> ... </style>
- External JS: <script src="app.js" defer></script> پا async
 - defer — file loads and executes after parsing
 - async — executes as soon as loaded (order not guaranteed)
- Inline JS: <script> ... </script>

مثال:

```
<head>
<link rel="stylesheet" href="styles.css">
</head>
<body>
<script src="main.js" defer></script>
</body>
```

16. Forms کے لیے Client-side Validation (HTML5)

- required, type="email", pattern="regex", minlength, maxlength

مثال:

```
<input type="email" required>
<input type="text" pattern="[A-Za-z ]+" title="Only letters allowed">
```

17. Templates, Slot اور Web Components (بنیادی)

- <template> — HTML template not rendered until used by JS
- <slot> — used inside web components

مثال:

```
<template id="card">
  <div class="card">
    <h3></h3>
    <p></p>
  </div>
</template>
```

18. Canvas اور SVG

- <canvas id="c"></canvas> — pixel drawing via JS
- Inline SVG: scalable vector graphics directly in HTML

مثال (SVG):

```
<svg width="100" height="100">
  <circle cx="50" cy="50" r="40" />
</svg>
```

19. Microdata / JSON-LD (structured data)

- JSON-LD is recommended for search engines

مثال (JSON-LD):

```
<script type="application/ld+json">
{
  "@context": "https://schema.org",
  "@type": "Person",
  "name": "Alee"
```

```
}
```

```
</script>
```

20. Common Useful Patterns

- Responsive meta + mobile-first CSS
- Skip link for accessibility: Skip to content
- Favicon: <link rel="icon" href="favicon.ico">
- Preload critical assets: <link rel="preload" href="font.woff2" as="font" type="font/woff2" crossorigin>

21. Shortcuts & Entities

- non-breaking space
- <, >, &, "
- ©, ®, — (em dash)

22. Events (HTML attributes)

- onclick, onchange, onsubmit — but prefer adding listeners in JS:
element.addEventListener(...)

Example (best practice):

```
<button id="btn">Click</button>
<script>
  document.getElementById('btn').addEventListener('click', () => alert('Clicked'));
</script>
```

23. Security Tips

- Sanitize user input server-side (never trust client).
- Use rel="noopener noreferrer" on target="_blank" links.
- Content Security Policy (CSP) headers to reduce XSS risk (set on server).

24. Performance Tips

- Minimize HTTP requests, use bundling where appropriate.
- Use defer/async for scripts.
- Use responsive images (srcset) and loading="lazy".
- Compress images, enable gzip/brotli on server.

25. Cheatsheet — Quick Reference Table

Tag	Purpose
<!DOCTYPE html>	Document type
<html>	Root element
<head>	Metadata, links, scripts
<meta>	Charset, viewport, description
<title>	Page title
<link>	External resources (CSS, preconnect)
<script>	JavaScript
<body>	Visible content
<header> <nav> <main> <footer>	Semantic layout
<section> <article> <aside>	Content grouping
<h1>–<h6>	Headings
<p>	Paragraph
<a>	Link
	Image
<form>	Form
<input> <select> <textarea>	Form controls
<table> <thead> <tbody> <tr> <td> <th>	Tables
 	Lists
<canvas> <svg>	Graphics

26. Examples — Small Page Template

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Simple Site</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <a class="skip" href="#main">Skip to content</a>
  <header>
    <h1>Simple Site</h1>
    <nav>
      <a href="#home">Home</a>
```

```
<a href="#about">About</a>
</nav>
</header>
<main id="main">
  <section id="home">
    <h2>Welcome</h2>
    <p>Hello world!</p>
  </section>
</main>
<footer>© 2025 Alee</footer>
<script src="main.js" defer></script>
</body>
</html>
```

27. Learning Resources (suggested next steps)

- Practice small projects: landing page, blog post, contact form
- Learn CSS (Flexbox & Grid) و JavaScript DOM
- Accessibility (WCAG basics)