**📌 Summary of Concepts Learned in HTML**

The provided HTML code covers many fundamental concepts of HTML. Below is a summary of these concepts with theoretical explanations and some useful tips. At the end, I'll propose 5-7 exercises to reinforce your knowledge.

**1️⃣ Useful Extensions for Running and Developing HTML & CSS**

If you are using **VS Code**, I recommend installing the following extensions:

🔹 **Live Server** – Allows real-time preview of your HTML page in the browser. It auto-refreshes as you make changes, making it easier to view live updates.

🔹 **Prettier** – Automatically formats your code, keeping it clean and readable. It helps you maintain consistent indentation and styling.

🔹 **Emmet** – A plugin that allows you to write shorter HTML/CSS code snippets and automatically expands them into full code.

🔹 **CSS Peek** – Lets you view the related CSS styles of an HTML element directly from your HTML file.

🔹 **HTML Snippets** – Provides useful HTML code snippets for quicker development, including tags, attributes, and common patterns.

**2️⃣ Core HTML Elements Used in the Provided Code**

**Headings**

Headings are used to structure the content of a page hierarchically. The HTML <h1> through <h6> tags represent headings, with <h1> being the most important and <h6> the least important. They are crucial for SEO and content structure.

html

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<h1>Hello</h1>

<h2>Hello</h2>

<h3>Hello</h3>

<h4>Hello</h4>

<h5>Hello</h5>

<h6>Hello</h6>

**Paragraphs and Text Formatting**

* <p> is used to define a paragraph. It helps structure content into readable sections.
* <strong> and <i> are used for text styling (bold and italic).
* <br> is used for line breaks in content.

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<p>Text</p>

<strong>Hello</strong>

<i>By</i>

**Links**

* The <a> tag is used to define hyperlinks, allowing navigation between different pages or websites.

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<a href="https://www.example.com">Link to example</a>

**Lists**

* Unordered lists (<ul>) are created using <li> elements for each item.
* Ordered lists (<ol>) are also created using <li>, but the list is numbered automatically.

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<ul>

<li>Item 1</li>

<li>Item 2</li>

</ul>

<ol>

<li>Step 1</li>

<li>Step 2</li>

</ol>

**Forms and Inputs**

Forms collect user input using a variety of input types:

* <input> elements can be of various types such as text, checkbox, color, date, etc.
* <textarea> creates a multi-line text input.
* <select> creates a dropdown menu for user selection.

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<input type="text" name="name">

<input type="checkbox" name="agree">

<textarea cols="30" rows="10"></textarea>

<select>

<option>Option 1</option>

</select>

**Images**

Images are embedded using the <img> tag, where the src attribute specifies the image source, and alt provides alternative text if the image can't be loaded.

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<img src="image.jpg" alt="Description">

**Embedded Content (iframes)**

The <iframe> tag allows embedding external content such as videos or other web pages.

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<iframe src="https://www.youtube.com/embed/SgMnIlu-ID0"></iframe>

**3️⃣ Theoretical Concepts in HTML**

* **HTML Structure**: Every HTML document has a basic structure with a <!DOCTYPE html> declaration followed by <html>, <head>, and <body> elements.
  + The <head> contains metadata, links to stylesheets, and other resources.
  + The <body> contains the actual content displayed on the page.
* **Attributes**: HTML tags can have attributes that provide additional information. For example, the href attribute in <a> specifies the URL for the link.
* **Semantic HTML**: Semantic HTML tags (like <header>, <footer>, <article>, etc.) help describe the content of the page more meaningfully, improving accessibility and SEO.
* **Responsive Design**: To make web pages adapt to different screen sizes, you can use media queries, a core feature of CSS. This ensures your HTML layout looks good on any device, from desktops to mobile phones.

**4️⃣ Practical Exercises**

Here are 5-7 exercises you can try to practice what you’ve learned:

1. **Create a personal portfolio page** using headings (<h1>-<h3>), paragraphs (<p>), lists (<ul> or <ol>), and links (<a>).
2. **Build a simple contact form** with different input types: text, email, password, and a submit button.
3. **Create an article page** using <article>, <section>, <header>, and <footer> to structure your content semantically.
4. **Embed a YouTube video** in your page using an <iframe>, and provide a description of the video with <p>.
5. **Design a basic FAQ page** using an unordered list (<ul>) where each item represents a question and answer.
6. **Create a simple image gallery** using <img> elements, and style it with CSS to display images in a grid format.
7. **Create a "Thank You" page** with a heading, paragraph, and a button that redirects to another page when clicked (using <a> tag inside the button).

By completing these exercises, you will gain a better understanding of the HTML tags and structure, as well as how to create well-formed, functional webpages.