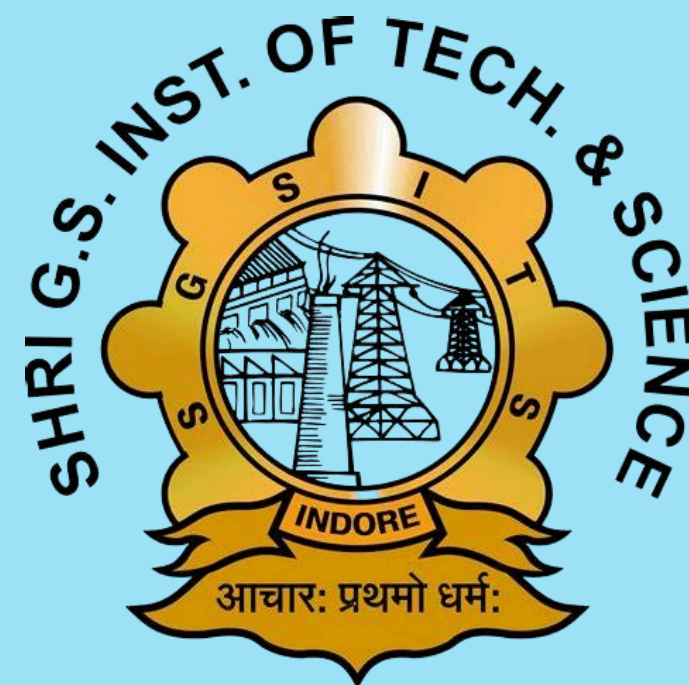


# SHRI G. S. INSTITUTE OF TECHNOLOGY AND SCIENCE



## INTRODUCTION TO HTML AND HTML5

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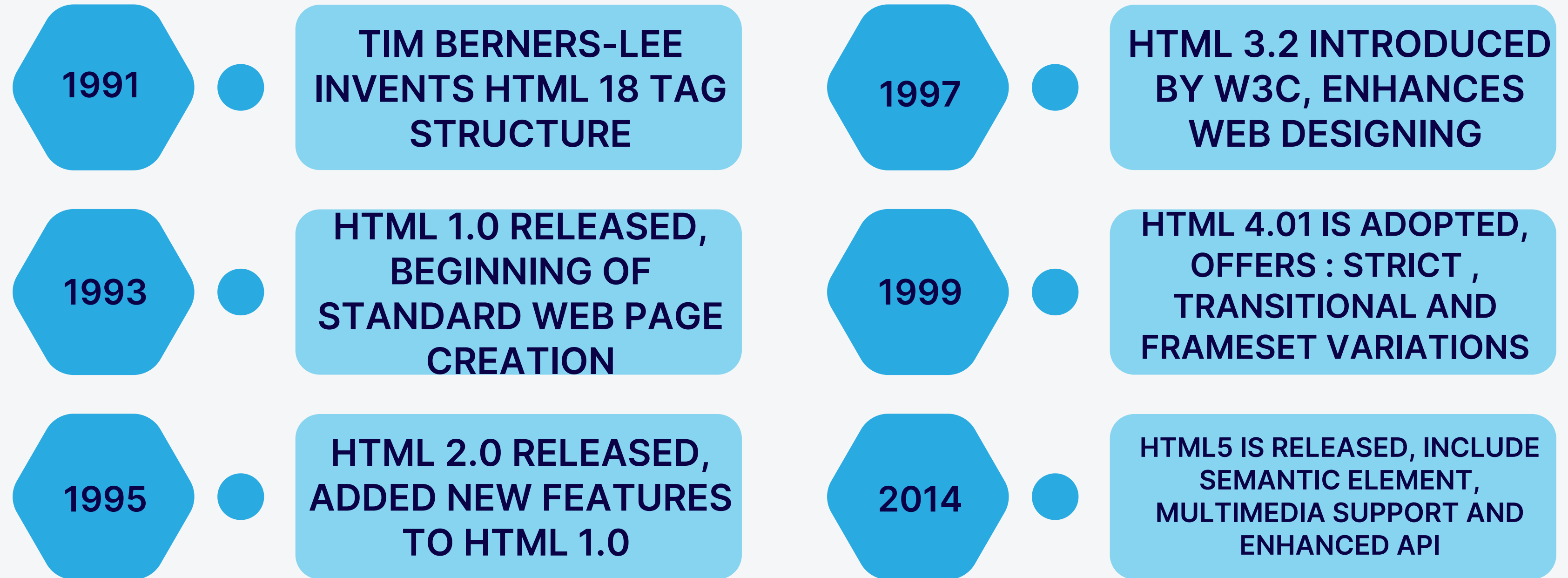
# DEFINITION OF HTML

- **HTML:** HyperText Markup Language, the standard language for creating web pages.
- **Markup Language:** Uses tags to structure content; not a programming language.
- **Platform Independent:** Compatible across various operating systems like Windows, Linux, and Mac.
- **Browser Interpret HTML tags to:**
  - Identify document structure (e.g., headings, paragraphs).
  - Decide presentation (appearance of elements).
- **Some notable features:**
  - Supports multimedia elements like images and videos.
  - Allows hyperlinks to connect to other documents or sections.

# OBJECTIVE OF HTML

- Create, save and view a HTML document
- Format a web page using section heading tags
- Describe Ordered and Unordered lists
- Explain graphics in HTML document
- Describe hypertext links and making text/image link

# HISTORY OF HTML



# HTML TOOLS

## 1.HTML Editor:

- Program to create and save HTML documents.
- Types:
  - Text-based/Code-based: Displays HTML code (e.g., Notepad).
  - Visual Editors: Like Netscape Composer.

## 2.Web Browser:

- Program to view and test HTML documents.
- Converts HTML files into text, images, and multimedia.
- Examples: Chrome, Internet Explorer, Netscape, Mosaic.
- Software must be installed on the user's computer.

# BASIC STRUCTURE OF HTML DOCUMENT

## HTML5 VERSION

```
<!DOCTYPE HTML>
<HTML LANG="EN">
  <HEAD>
    <META CHARSET="UTF-8" />
    <META NAME="VIEWPORT" CONTENT=
      "WIDTH=DEVICE-WIDTH, INITIAL-
SCALE=1.0" />
    <TITLE>STRUCTURE OF HTML
DOCUMENT</TITLE>
  </HEAD>
  <BODY>
    <!-- MAIN CONTENT OF WEBSITE -->
    <!--THIS IS A COMMENT-->
    <H1>HEADER 1</H1>
    <P>A SAMPLE PARAGRAPH</P>
  </BODY>
</HTML>
```

## HTML VERSION

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01
TRANSITIONAL//EN"
"HTTP://WWW.W3.ORG/TR/HTML4/LOOSE.DTD">
<HTML LANG="EN">
  <HEAD>
    <META HTTP-EQUIV="CONTENT-TYPE"
CONTENT="TEXT/HTML; CHARSET=UTF-8" />
    <TITLE>STRUCTURE OF HTML DOCUMENT</TITLE>
  </HEAD>
  <BODY>
    <!-- MAIN CONTENT OF WEBSITE -->
    <!--THIS IS A COMMENT-->
    <H1>HEADER 1</H1>
    <P>A SAMPLE PARAGRAPH</P>
  </BODY>
</HTML>
```

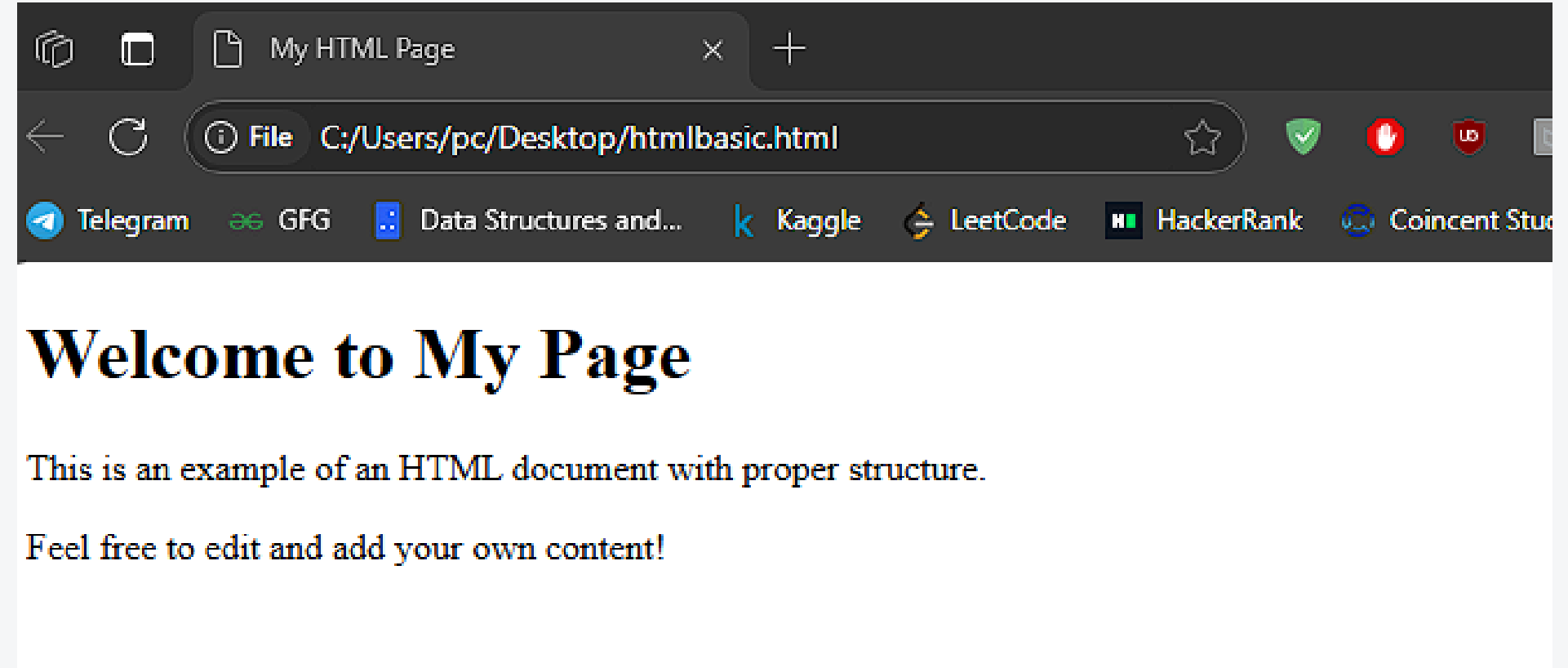
# BASIC STRUCTURE OF HTML DOCUMENT

- `<!DOCTYPE html>` or `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">`:
  - Declares the document type and version of HTML (HTML5).
  - Ensures browsers interpret the document correctly.
- `<html>`:
  - Root element enclosing the entire HTML document.
  - Includes two sections: `<head>` and `<body>`.
- `<head>`:
  - Contains information about the page, like its title and settings.
    - `<meta>` tag: Sets page info like text type and how it looks on devices.
    - `<title>` tag: Sets the name shown on the browser tab.
- `<body>`:
  - Main content of the webpage visible to users.
  - Examples:
    - `<h1>` tag: Creates a large header (e.g., "header 1").
    - `<p>` tag: Adds paragraphs (e.g., "A sample paragraph").

# SAMPLE HTML5 DOCUMENT

## Code:

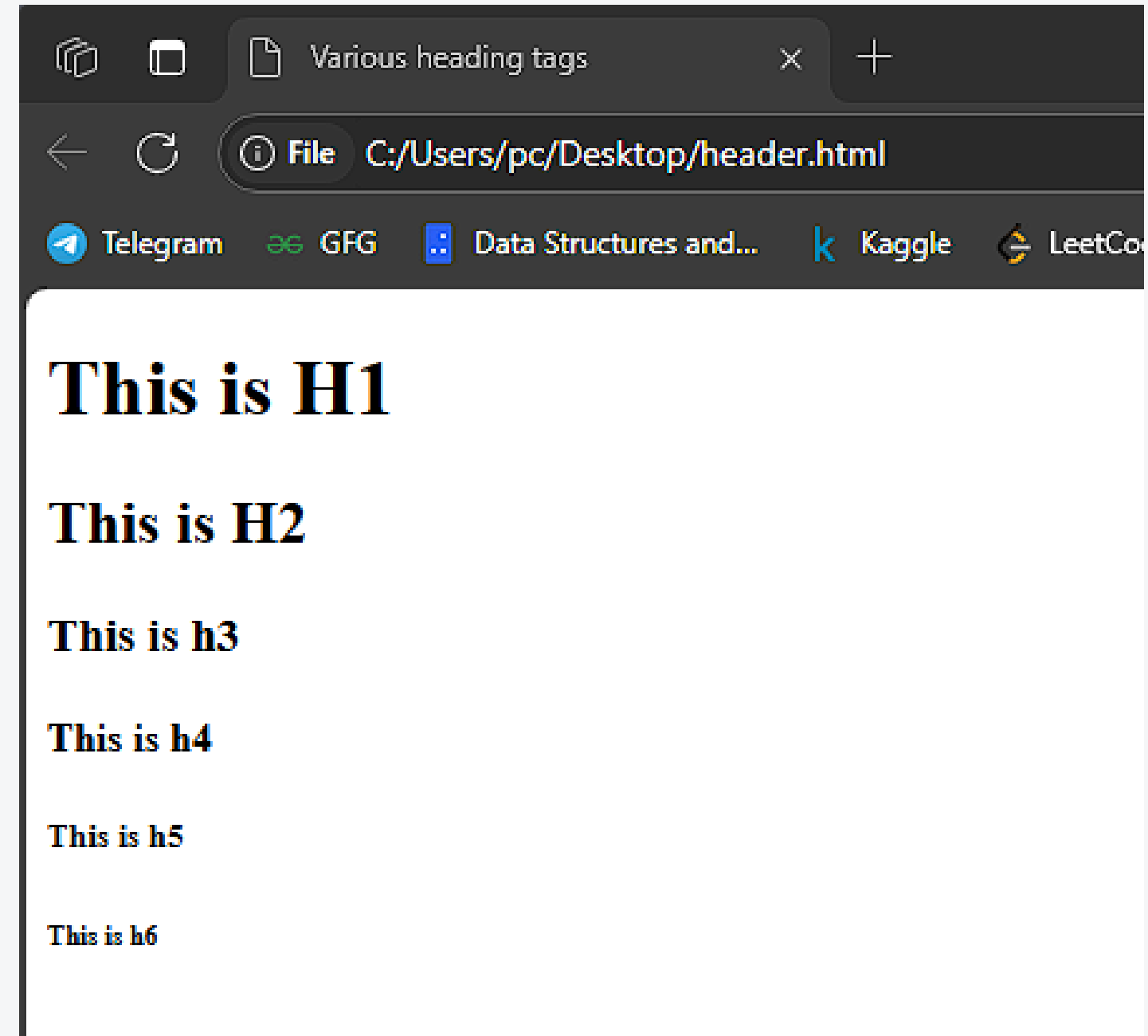
```
<!DOCTYPE html>
<html>
<head>
  <title>My HTML Page</title>
</head>
<body>
  <h1>Welcome to My Page</h1>
  <p>This is an example of an HTML document
with proper structure.</p>
  <p>Feel free to edit and add your own
content!</p>
  <!--HTML COMMENT TAG-->
</body>
</html>
```





# VARIOUS HEADER TAGS

```
<!DOCTYPE html>
<html>
<head>
  <title>Various heading tags</title>
</head>
<body>
  <h1>This is H1</h1>
  <h2>This is H2</h2>
  <h3>This is h3</h3>
  <h4>This is h4</h4>
  <h5>This is h5</h5>
  <h6>This is h6</h6>
</body>
</html>
```



# SOME OTHER IMPORTANT HTML TAGS

- **Links (<a> tag):**

- Used to create hyperlinks to navigate between pages or sections.
- **Example:** `<a href="https://example.com">Click here</a>`

- **Images (<img> tag):**

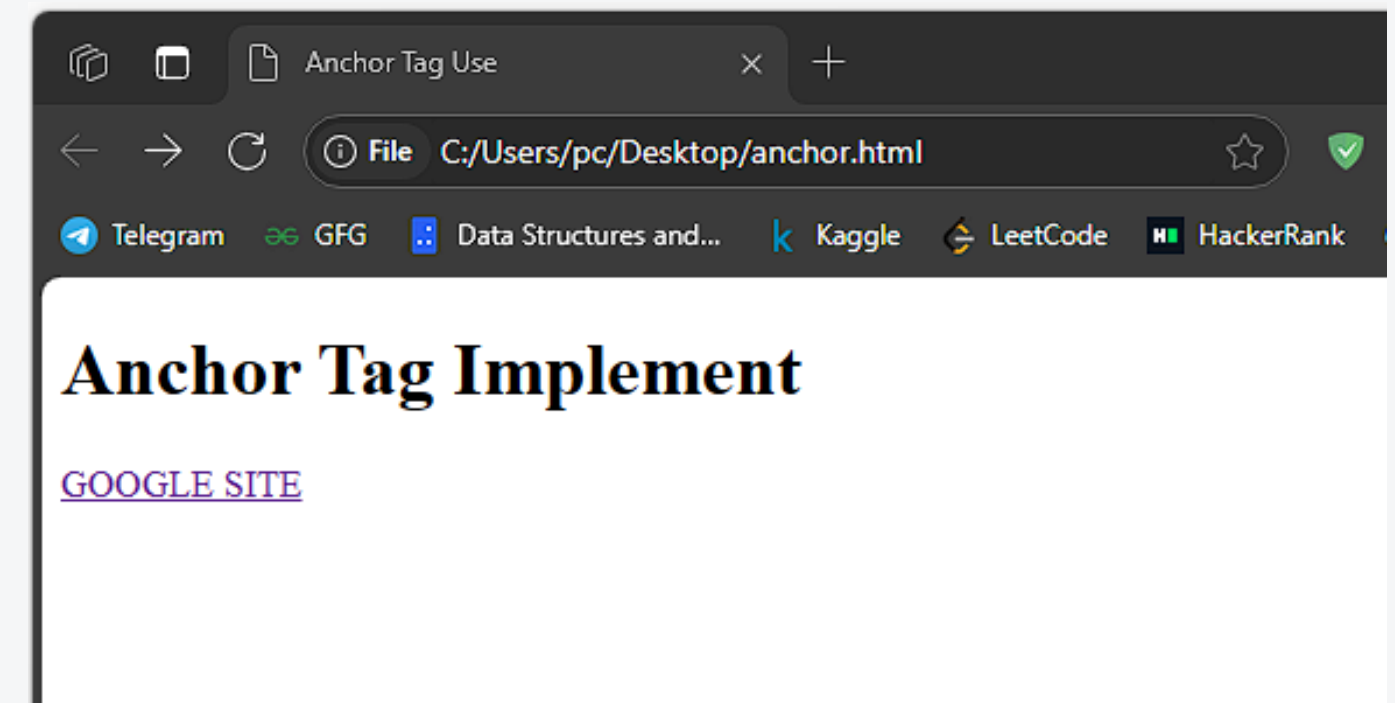
- Used to display images on a webpage.
- **Example:** ``

- **Lists:**

- **Ordered List (<ol> tag):** Displays items in a numbered list.
- **Example:** `<ol><li>Item 1</li><li>Item 2</li></ol>`
- **Unordered List (<ul> tag):** Displays items with bullet points.
- **Example:** `<ul><li>Item 1</li><li>Item 2</li></ul>`

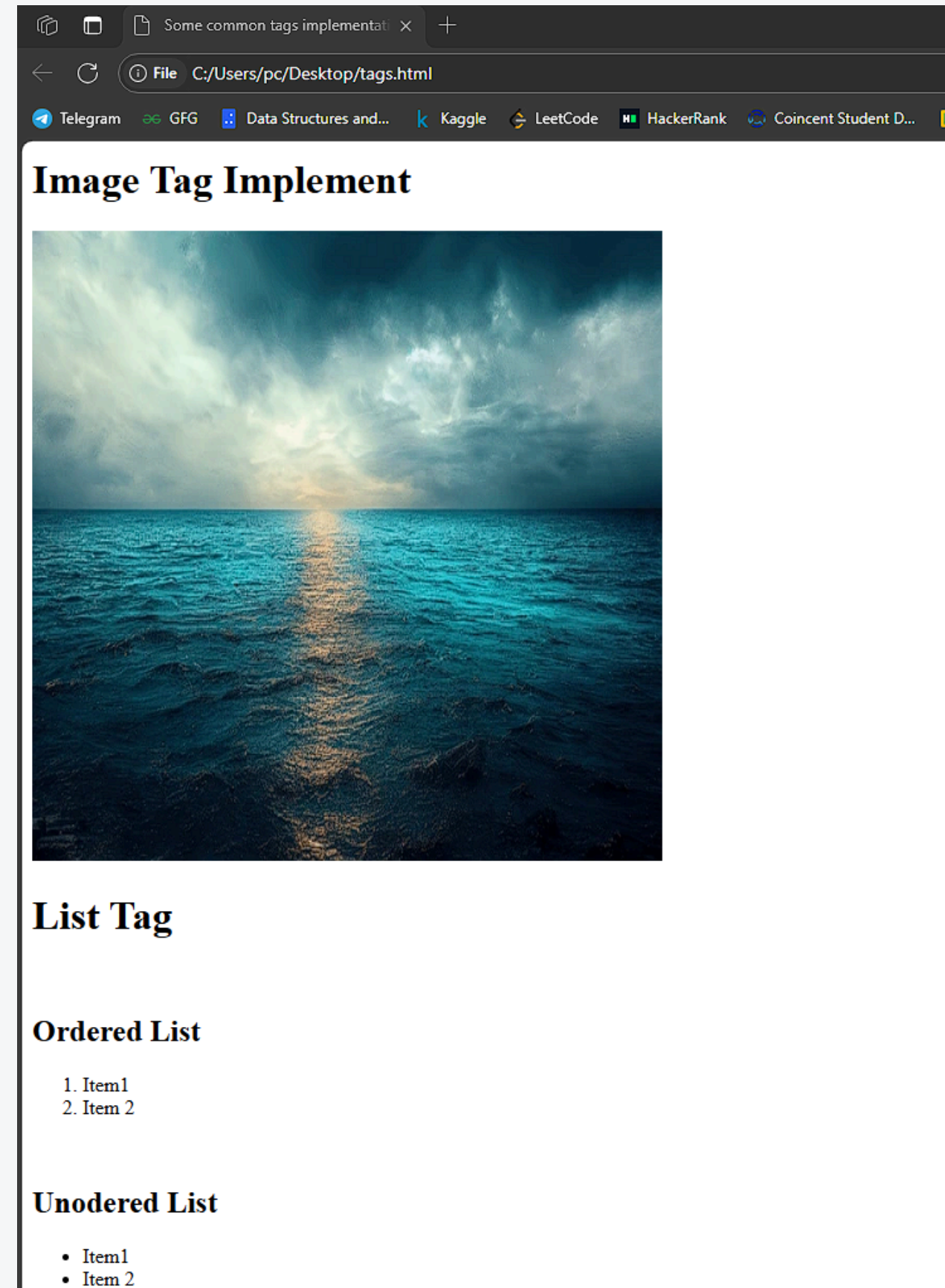
# ANCHOR TAG IMPLEMENTATION

```
<!DOCTYPE html>
<html>
<head>
  <title>Anchor Tag Use</title>
</head>
<body>
  <h1>Anchor Tag Implement</h1>
  <a href="https://www.google.com/">GOOGLE
SITE</a>
</body>
</html>
```



# IMAGE TAG & OL AND UL LIST TAGS IMPLEMENTATION

```
<!DOCTYPE html>
<html>
<head>
  <title>Some common tags
  implementation</title>
</head>
<body>
  <h1>Image Tag Implement</h1>
  
  <br>
  <h1>List Tag</h1>
  <br>
  <h2>Ordered List</h2>
  <ol><li>Item1</li><li>Item 2</li></ol>
  <br>
  <h2>Unodered List</h2>
  <ul><li>Item1</li><li>Item 2</li></ol>
  <br>
</body>
</html>
```



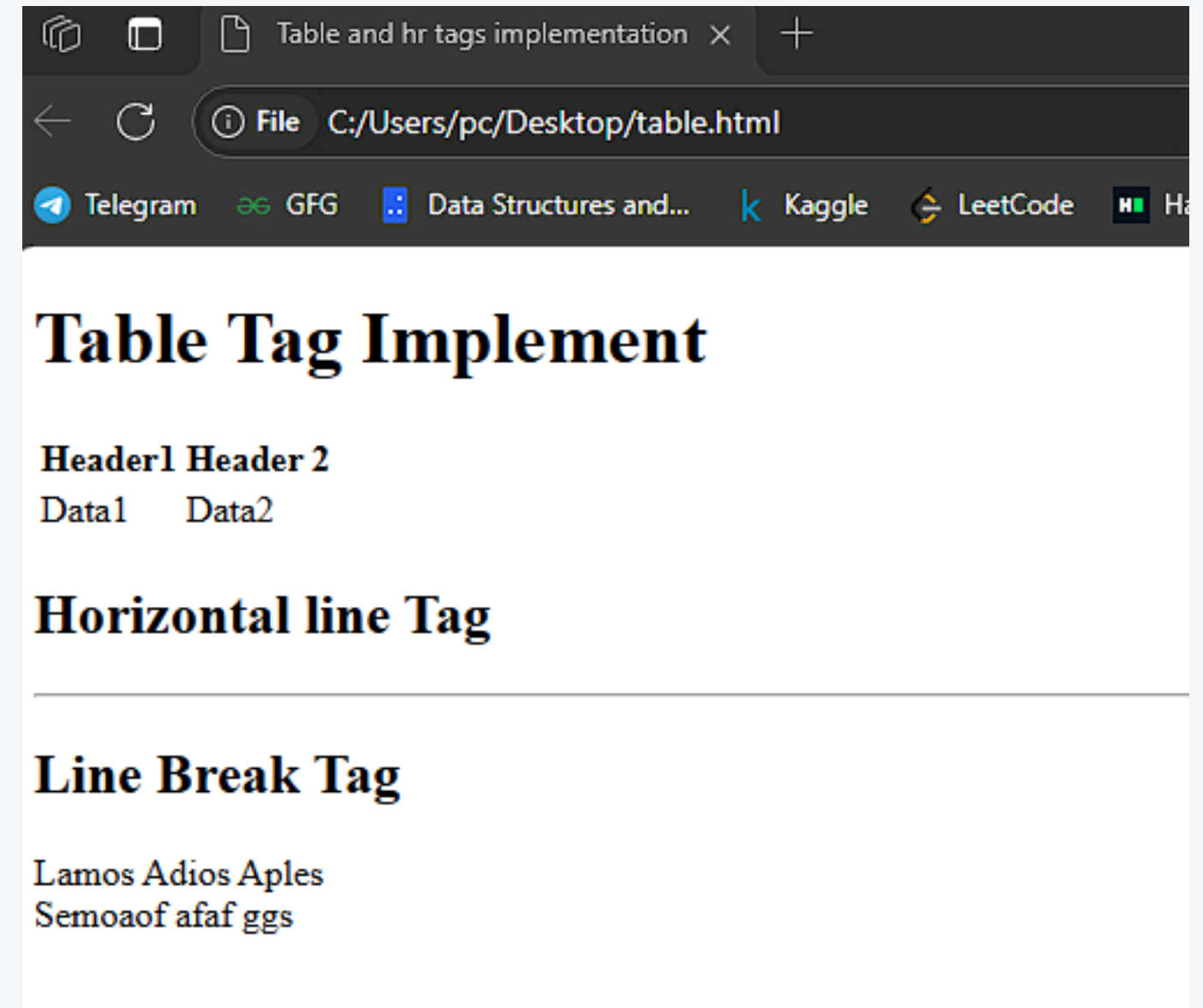
Tags Used:  
1.<img> tag  
2.<br> tag  
3.<ol> tag  
4.<ul> tag

# SOME OTHER IMPORTANT HTML TAGS

- Table (<table> tag):
- Used to display data in rows and columns.
- Example:
- <table>
- <tr><th>Header 1</th><th>Header 2</th>
- </tr><tr><td>Data 1</td><td>Data 2</td></tr>
- </table>
  
- Horizontal Line (<hr> tag):
- Adds a horizontal line to separate sections.
- Example: <hr>
  
- Line Break (<br> tag):
- Inserts a single line break in text.
- Example: This is<br>new line text.

# TABLE TAG AND HR TAG IMPLEMENTATION

```
<!DOCTYPE html>
<html>
<head>
  <title>Table and hr tags implementation</title>
</head>
<body>
  <h1>Table Tag Implement</h1>
  <table>
    <tr><th>Header1</th><th>Header 2</th></tr>
    <tr><td>Data1</td><td>Data2</td></tr>
  </table>
  <h2>Horizontal line Tag</h2>
  <hr>
  <h2>Line Break Tag</h2>
  <p>Lamos Adios Aples<br>Semoaof afaf ggs</p>
</body>
</html>
```





# WHAT IS HTML5?

HTML5 is the current or latest version of the HTML trendy, which is used to format and supply content on the World Wide Web.

HTML5 consists of a plethora of latest capabilities that beautify the capability of web pages and apps, making them greater dynamic, efficient, and user-pleasant.



# FEATURES OF HTML5

- **1. Improved Syntax**
- HTML5 introduces new semantic elements that offer higher structure and meaning to the internet content material. These elements make the HTML code extra readable and accessible each for builders and search engines like google.
- **<h1>** : Defines a header for a record or segment.
- **<h2>** : Defines a container for navigation hyperlinks.
- **<nav>** : Represents a self-contained piece of content material.
- **<article>** : Defines a phase in a record.
- **<section>** : Defines a section in a document
- **<footer>** : Represents a footer for a file or section.
- **2. Enhanced Multimedia Support**
- **<audio>** and **<video>** tags for media playback
- no need for Flash or external plugins
- **3. Canvas & SVG for Graphics**
- **<canvas>** allows drawing graphics & animations using JavaScript
- SVG (Scalable Vector Graphics) supports high-quality images without losing clarity.



# FEATURES OF HTML5

- **4. Geolocation API**

- Allows web apps to detect user location.
- Used for location-based services like maps, weather apps, etc.

- **5. Offline & Storage Features**

- **LocalStorage & SessionStorage:** Stores data in the browser.
- **IndexedDB:** Database-like storage for web applications.
- **Application Cache:** Allows offline access to web pages.

- **6. Responsive Web Design Support**

- Media Queries allow web pages to adjust to different screen sizes.
- Viewport meta tag for better mobile support.

- **8. Improved Forms & Input Types**

- New input types: <email>, <date>, <number>, <range>, etc.
- New attributes: placeholder, autofocus, required, pattern, etc.
- Built-in validation without JavaScript.

- **9. Web Workers**

- Enables background processing to run JavaScript tasks in parallel without blocking the UI

# ADVANTAGES OF HTML

- Easy to use
- Loose syntax (although, being too flexible will not comply with standards).
- Supported on almost every browser, if not all browsers.
- Widely used; established on almost every website, if not all websites.
- Very similar to XML syntax, which is increasingly used for data storage.
- Free - You need not buy any software.
- Easy to learn & code even for novice programmers.

# DISADVANTAGES OF HTML

- It cannot produce dynamic output alone, since it is a static language
- Sometimes, the structuring of HTML documents is hard to grasp
- You have to keep up with deprecated tags, and make sure not to use them
- Deprecated tags appear because another language that works with HTML has replaced the original work of the tag; thus the other language needs to be learned (most of the time, it is CSS)
- Security features offered by HTML are limited

# HTML VS HTML5

HTML	HTML5
<ul style="list-style-type: none"><li>• It works with all old browsers</li></ul>	<ul style="list-style-type: none"><li>• It supported by all new browser like Firefox, Mozilla, Chrome, Safari, etc.</li></ul>
<ul style="list-style-type: none"><li>• Doctype declaration is too long and complicated.</li></ul>	<ul style="list-style-type: none"><li>• Doctype declaration is quite simple and easy.</li></ul>
<ul style="list-style-type: none"><li>• It uses cookies to store temporary data.</li></ul>	<ul style="list-style-type: none"><li>• It uses SQL databases and application cache to store offline data.</li></ul>
<ul style="list-style-type: none"><li>• Does not allow JavaScript to run in the browser.</li></ul>	<ul style="list-style-type: none"><li>• Allows JavaScript to run in the background. This is possible due to JS Web worker API in HTML5.</li></ul>
<ul style="list-style-type: none"><li>• Being an older version , it is not fast , flexible , and efficient as compared to HTML5.</li></ul>	<ul style="list-style-type: none"><li>• It is efficient, flexible and more fast in comparison to HTML.</li></ul>

# IMPLEMENTATION

```
<body>
  <video id="video-background" autoplay
muted loop>
    <source src="background.mp4"
type="video/mp4">
    Your browser does not support HTML5
video.
  </video>
  <header>
    <h1>Welcome to the PC Games
Hub</h1>
    <nav>
      <ul>
        <li><a href="#popular-
games">Popular Games</a></li>
        <li><a href="#about">About</a></li>
        <li><a href="#gallery">Gallery</a>
</li>
        <li><a href="#contact">Contact</a>
</li>
      </ul>
    </nav>
  </header>
```

```
<main>
  <section id="popular-games">
    <h2>Popular PC Games</h2>
    <article>
      <h3>1. The Witcher 3: Wild Hunt</h3>
      <p>An action role-playing game set in a visually stunning fantasy
universe full of meaningful choices and
      impactful consequences.</p>
      <figure>
        
        <figcaption>The Witcher 3: Wild Hunt</figcaption>
      </figure>
    </article>
```

# IMPLEMENTATION

```
<section id="gallery">
  <h2>Game Trailers</h2>
  <video controls poster="thumbnail.jpg">
    <source
src="https://media.w3.org/2010/05/sintel/tr
ailer.mp4" type="video/mp4">
    Your browser does not support the
video tag.
  </video>
</section>
```

```
<section id="soundtrack">
  <h2>Game Soundtrack</h2>
  <br>
  <audio controls>
    <source
src="https://www.soundhelix.com/examples
/mp3/SoundHelix-Song-1.mp3"
type="audio/mpeg">
    Your browser does not support the
audio element.
  </audio>
</section>
```

```
<section id="game-list">
  <h2>Top-Rated PC Games</h2>
  <ul>
    <li>The Witcher 3: Wild Hunt</li>
    <li>Minecraft</li>
    <li>Cyberpunk 2077</li>
    <li>Red Dead Redemption 2</li>
  </ul>
</section>
```

```
<section id="game-table">
  <h2>Game Comparison</h2>
  <table>
    <tr>
      <th>Game</th>
      <th>Genre</th>
      <th>Release Year</th>
    </tr>
    <tr>
      <td>The Witcher 3</td>
      <td>RPG</td>
      <td>2015</td>
    </tr>
    <tr>
      <td>Minecraft</td>
      <td>Sandbox</td>
      <td>2011</td>
    </tr>
  </table>
</section>
```

# IMPLEMENTATION

```
<section id="about">
```

```
  <h2>About Us</h2>
```

```
  <p>We are passionate about PC gaming and aim to bring you the latest  
news, reviews, and updates about your favorite games.</p>
```

```
</section>
```

```
<section id="contact">
```

```
  <h2>Contact Us</h2>
```

```
  <form>
```

```
    <label for="name">Name:</label>
```

```
    <input type="text" id="name" name="name" required>
```

```
    <label for="email">Email:</label>
```

```
    <input type="email" id="email" name="email" required>
```

```
    <label for="message">Message:</label>
```

```
    <textarea id="message" name="message" rows="4" required></textarea>
```

```
    <button type="submit">Submit</button>
```

```
  </form>
```

```
</section>
```

```
</main>
```

```
<footer>
```

```
  <p>&copy; 2025 PC Games Hub. All  
rights reserved.</p>
```

```
</footer>
```



# OUTPUT


## WELCOME TO THE PC GAMES HUB

[Popular Games](#)[About](#)[Gallery](#)[Contact](#)

### Popular PC Games

#### 1. The Witcher 3: Wild Hunt


An action role-playing game set in a visually stunning fantasy universe full of meaningful choices and impactful consequences.



The Witcher 3: Wild Hunt

#### 2. Minecraft

A sandbox game that lets you create, explore, and survive in a blocky, possibilities.




Minecraft

## Top-Rated PC Games

- The Witcher 3: Wild Hunt
- Minecraft
- Cyberpunk 2077
- Red Dead Redemption 2

### Game Trailers



0:20 / 0:52

### Game Soundtrack

0:00 / 6:12

### About Us

We are passionate about PC gaming and aim to bring you the late favorite games.

### Contact Us

Name:

Email:

Message:

Submit

### Game Comparison

Game	Genre	Release Year
The Witcher 3	RPG	2015
Minecraft	Sandbox	2011
Cyberpunk 2077	Action RPG	2020
Red Dead Redemption 2	Adventure	2018



The background is a light purple color filled with numerous small, stylized icons in shades of blue and purple. These icons represent various scientific fields: chemistry (flasks, beakers, test tubes, microscopes, and chemical reactions), biology (cells, DNA helix, and a microscope), physics (an atom model and a lightbulb), and general science (a petri dish, a balance scale, and a test tube). The icons are scattered across the entire background, creating a dense, thematic pattern.

**THANK YOU  
VERY MUCH!**