```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8" />
   <title>Networking and Cyber Security</title>
   <style>
      body {
         font-family: Arial, sans-serif;
         margin: 0;
         padding: 0;
         text-align: center;
      }
      header {
         background-color: #333;
         color: white;
         padding: 1em 0;
         text-align: center;
      }
      nav {
         background-color: #444;
         color: white;
         display: flex;
         justify-content: center;
         padding: 0.5em 0;
      }
      nav a {
         color: white;
         margin: 0 1em;
         text-decoration: none;
         transition: color 0.3s ease;
      }
      nav a:hover {
         color: #00bfff; /* Light Blue */
      }
      h1 span {
         color: #00bfff;
      }
      section {
         padding: 2em;
         border-bottom: 1px solid #ddd;
      }
      img {
         max-width: 100%;
         height: auto;
```

```
        display: block;
        margin: 0 auto;
      }
    </style>
</head>
<body>

<header>
    <h1>NETWORKING<br>AND<br>CYBER SECURITY</h1>
</header>

<h3>Networking and cybersecurity involve the design, management, and protection of systems that enable communication and safeguard data from cyber threats.</h3>
<a href="https://www.w3schools.com/html/default.asp"
style="color:green;"><b>W3schools</b></a>
<a href="https://codehs.com/" style="color:blue;"><br><b>CodeHS</b></a>
<a href="https://www.comptia.org/" style="color:red;"><br><b>CompTIA</b></a>
<a href="https://www.python.org/" style="color:navy;"><br><b>Python</b></a>
<a href="https://www.calculator.net/binary-calculator.html"
style="color:limegreen;"><br><b>Binary</b></a>
<a href="https://www.calculator.net/ip-subnet-calculator.html"
style="color:darkred;"><br><b>Subnetting</b></a>
<a href="https://www.calculator.net/hex-calculator.html"
style="color:purple;"><br><b>Hexadecimal</b></a>
<a href="https://www.netacad.com/cisco-packet-tracer" style="color:yellow;"><br><b>Packet Tracer</b></a>
<a href="https://en.wikipedia.org/wiki/Virtual_machine" style="color:hotpink;"><br><b>Virtual Machines</b></a>
<a href="https://en.wikipedia.org/wiki/HTML" style="color:orange;"><br><b>HTML</b></a>

<hr>
<a href="https://www.w3schools.com/html/default.asp"
style="color:green;"><h2><b>W3schools</b></h2></a>
<h4>W3Schools is an educational website offering comprehensive tutorials and references on various web development technologies, including HTML, CSS, JavaScript, and SQL, designed to help learners from beginners to advanced users build and enhance their web development skills.
</h4>
<img src="https://www.w3schools.com/images/w3schools_logo_436_2.png" width="200"
height="100">
<hr>

<a href="https://codehs.com/" style="color:blue;"><h2><b>CodeHS</b></h2></a>
```

<h4>CodeHS is an interactive online platform that provides comprehensive computer science education for K-12 students, featuring web-based curriculum, an online code editor, and tools for teachers to manage classrooms and track student progress.
</h4>

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<h2>Python</h2>
<h4>Python is a high-level, versatile programming language known for its easy-to-read syntax and wide range of applications, from web development to data analysis and artificial intelligence. Its simplicity makes it ideal for beginners, while its extensive libraries and frameworks support advanced projects. Python is also widely used in automation, scientific computing, and software development.</h4>

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<h2>Binary</h2>
<h4>Binary is a base-2 number system that uses only two digits, 0 and 1, to represent data. It's the fundamental language of computers, as they process and store all information in binary form. Each binary digit, or "bit," represents a power of 2, and combinations of bits form more complex data, such as numbers, text, and images.
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<h2>Subnetting</h2>
<h4>Subnetting is the practice of dividing a larger network into smaller, more manageable sub-networks, or subnets. It helps improve network performance and security by reducing traffic within each subnet and isolating different parts of a network. Subnetting also allows for more efficient use of IP addresses, especially in large organizations.
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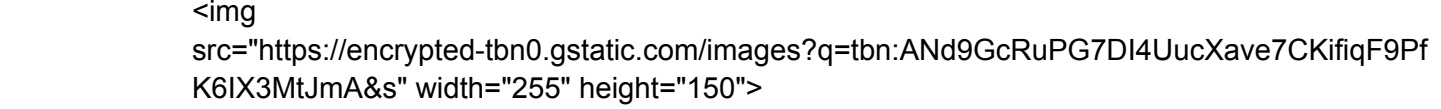
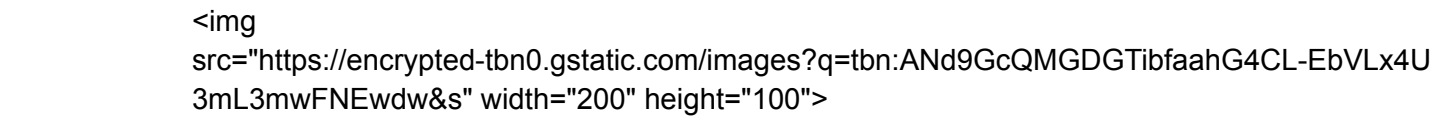
<h2>Hexadecimal</h2>
<h4>Hexadecimal is a base-16 number system that uses the digits 0–9 and letters A–F to represent values. It’s often used in computing as a shorthand for binary because one hex digit

equals four binary digits. This makes it easier to read and write large binary numbers, such as in memory addresses, color codes, and machine-level programming.
</h4>

<hr>

<h2>Packet Tracer</h2>
<h4>Cisco Packet Tracer is a free network simulation tool developed by Cisco Systems that enables users to design, configure, and simulate computer networks within a virtual environment, supporting the development of networking, Internet of Things (IoT), and cybersecurity skills.
</h4>

<hr>

<h2>Virtual Machines</h2>
<h4>A virtual machine (VM) is a software-based emulation of a physical computer that runs an operating system and applications just like a real machine. It uses virtualization technology to create isolated environments on a physical host system, allowing multiple VMs to run on the same hardware simultaneously, each with its own resources, such as CPU, memory, and storage. VMs are commonly used for testing, development, and server consolidation.
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<h2>HTML</h2>
<h4>HTML (HyperText Markup Language) is the standard language used to create and structure content on the web. It uses a series of tags and attributes to define elements such as headings, paragraphs, links, images, and forms. HTML provides the basic framework for web pages, and it is often combined with CSS and JavaScript to enhance the design and functionality of websites.
</h4>


```
<!-- Dark Mode Toggle Script -->
<script>
    document.addEventListener("DOMContentLoaded", () => {
        const toggleButton = document.createElement("button");
        toggleButton.textContent = "Toggle Dark/Light Mode";
        toggleButton.style.position = "fixed";
        toggleButton.style.bottom = "20px";
        toggleButton.style.right = "20px";
        toggleButton.style.padding = "10px 20px";
        toggleButton.style.background = "#6A0DAD";
        toggleButton.style.color = "#fff";
        toggleButton.style.border = "none";
        toggleButton.style.borderRadius = "5px";
        toggleButton.style.cursor = "pointer";
        toggleButton.style.boxShadow = "0 4px 15px rgba(0, 0, 0, 0.2)";
        toggleButton.style.fontWeight = "bold";

        document.body.appendChild(toggleButton);

        toggleButton.addEventListener("click", () => {
            document.body.classList.toggle("dark-mode");
        });

        const style = document.createElement("style");
        style.textContent = `
            .dark-mode {
                background-color: #121212;
                color: #ffffff;
            }
            .dark-mode header,
            .dark-mode nav,
            .dark-mode footer {
                background-color: #1e1e1e;
            }
            .dark-mode nav a {
                color: #ffffff;
            }
            .dark-mode section {
                background-color: #1e1e1e;
                color: #ffffff;
            }
            .dark-mode button {
                background: #ffffff;
```

```
            color: #121212;
        }
    `;
    document.head.appendChild(style);
});
</script>

</body>
</html>
```