

AI ASSISTED CODING

Lab-14.5

NAME:Simra Tahseen

ROLL NO:2503A51L17

BATCH no:19

Task 1: AI-Assisted Portfolio Website

Scenario:

A student wants to showcase their projects, skills, and contact details in a portfolio website. Instead of writing all code manually, they want to speed up the process using GitHub Copilot.

- Use Copilot to generate an HTML structure for a personal portfolio page (sections: Home, About, Projects, Contact).
- Ask Copilot to suggest responsive CSS styling for the layout (e.g., grid/flexbox).
- Customize Copilot's suggestions to add a hover effect on project cards

PROMPT:

generate an HTML structure for a personal portfolio page (sections: Home, About, Projects, Contact).suggest responsive CSS styling for the layout (e.g., grid/flexbox).
add a hover effect on project cards give html css in same file

```

a.html > ...
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="utf-8" />
5      <meta name="viewport" content="width=device-width,initial-scale=1" />
6      <title>Simra Tahseen - Portfolio</title>
7      <style>
8          :root{
9              --bg:#0f1724;
10             --card:#0b1220;
11             --accent:#4fd1c5;
12             --muted:#9aa3b8;
13             --glass:rgba(255,255,255,0.04);
14             --radius:12px;
15             --max-width:1100px;
16             --gap:1.25rem;
17             --ff: "Segoe UI", Roboto, system-ui, -apple-system, "Helvetica Neue", Arial;
18         }
19
20         *[box-sizing:border-box]
21         html,body{height:100%;}
22         body{
23             margin:0;
24             font-family:var(--ff);
25             background: linear-gradient(180deg, #071025 0%, #0f1724 100%);
26             color: #e6eef6;
27             -webkit-font-smoothing:antialiased;
28             -moz-osx-font-smoothing:grayscale;
29             padding:2rem;
30             display:flex;
31             justify-content:center;
32         }
33
34         .site{
35             width:100%;
36             max-width:var(--max-width);
37             background: linear-gradient(180deg, rgba(255,255,255,0.02), rgba(255,255,255,0.01));
38     }
39
40     /* Contact Form */
41     .contact{
42         display:flex;
43         flex-direction:column;
44         gap:0.5rem;
45         margin-top:0.5rem;
46     }
47     .contact input, .contact textarea{
48         background:transparent; border:1px solid #0f1724; color:inherit; padding:0.6rem; border-radius:8px;
49     }
50     .contact textarea{min-height:90px; resize:vertical}
51
52     footer{margin-top:1.2rem; color:var(--muted); font-size:0.9rem; text-align:center}
53
54     /* Responsive */
55     @media (max-width:980px){
56         main{grid-template-columns:1fr}
57         .projects{grid-template-columns:repeat(1,1fr)}
58         .brand .name h1{font-size:1rem}
59     }
60
61     @media (max-width:520px){
62         .avatar{width:48px; height:48px; font-size:0.95rem}
63         body{padding:1rem}
64         .site{padding:1rem}
65     }
66
67     </style>
68 </head>
69 <body>
70     <div class="site" role="main">
71         <header>
72             <div class="brand">
73                 <div class="avatar">ST</div>
74                 <div class="name">
75                     <h1>Simra Tahseen</h1>
76                     <p>Backend & Cloud · Networking · Automation</p>
77                 </div>
78             </div>
79             <nav aria-label="Main">
80                 <a href="#">Home</a>
81                 <a href="#">About</a>
82                 <a href="#">Projects</a>
83                 <a href="#">Contact</a>
84             </nav>
85         </header>
86
87         <main>
88             <div class="content">
89                 <section id="home" class="hero" aria-labelledby="homeTitle">
90                     <div class="intro">
91                         <h2 id="homeTitle">Hi, I'm Simra - I build resilient cloud-backend solutions</h2>
92                         <p>Student and developer focused on hybrid cloud, automation, CLI tooling, and secure architectures. I turn complex problems into clear, working systems.</p>
93
94                         <div class="cta">
95                             <a class="btn" href="#projects">View Projects</a>
96                             <a class="btn secondary" href="#contact">Get in touch</a>
97                         </div>
98                     </div>
99                 </section>
100
101                 <section id="about" aria-labelledby="aboutTitle">
102                     <h3 class="section-title" id="aboutTitle">About</h3>
103                     <p style="color:var(--muted); margin-top:0.4rem">
104
105             </p>
106         </section>
107     </main>
108
109     <div class="background">
110         <img alt="Background image of a landscape with green trees and a blue sky" data-bbox="0 0 1000 1000" />
111     </div>
112
113     <script>
114         // Your JavaScript code here
115     </script>
116
117 </body>
118 </html>

```

editing completed.



```

148         <div class="projects-grid">
149             <p>A simple and intuitive task management app for productivity, using React and Firebase.</p>
150             </div>
151             <div class="project-card">
152                 <h3>Blog Platform</h3>
153                 <p>A full-featured blogging platform with user authentication and markdown support.</p>
154             </div>
155         </div>
156     </section>
157     <section id="contact">
158         <h2>Contact</h2>
159         <form class="contact-form">
160             <label for="name">Name</label>
161             <input type="text" id="name" name="name" required>
162
163             <label for="email">Email</label>
164             <input type="email" id="email" name="email" required>
165
166             <label for="message">Message</label>
167             <textarea id="message" name="message" rows="4" required></textarea>
168
169             <button type="submit">Send Message</button>
170         </form>
171     </section>
172 </main>
173 </body>
174 </html>

```

The screenshot shows a dark-themed website for a student developer. At the top left is a profile icon with letters 'ST'. Next to it is the name 'Simra Tahseen' and the subtitle 'Backend & Cloud - Networking · Automation'. On the right side of the header are navigation links: Home, About, Projects, and Contact. Below the header, there's a bio section with a heading 'Hi, I'm Simra — I build resilient cloud-backend solutions' and a brief description of the developer's focus on hybrid cloud, automation, and secure architectures. There are two buttons: 'View Projects' and 'Get in touch'. The 'About' section contains a paragraph about the developer's focus on backend design and network configuration. The 'Projects' section lists three projects: 'Hybrid Cloud Connector' (2025), 'CLI Lab Suite' (2024), 'Data Cleaner Tool' (2024), and 'Event Registration App' (2025). Each project card includes a brief description and relevant tags like Terraform, AWS, Python, etc. To the right of the projects is a 'Profile' sidebar with location (Hanamkonda, India), role (Cloud & Backend Student), and experience (Internships · Labs · Projects). Below that is a 'Skills' sidebar with Python, AWS, Terraform, Git, Networking, and SQL listed. A 'Quick Links' sidebar at the bottom right includes links to View Projects, Contact, and a Resume (PDF).

This screenshot shows the contact form section of the website. It features a 'Contact' heading and a message encouraging users to collaborate or send a message. Below this are three input fields: 'Your name', 'Your email', and 'Message', each with a placeholder text. At the bottom of the form are two buttons: 'Send Message' and 'Email'. At the very bottom of the page, a footer note reads 'Designed and coded by Simra Tahseen — Student Portfolio'.

OBSERVATION:

The code builds a **responsive personal portfolio webpage** with four main sections: Home, About, Projects, and Contact. It uses **flexbox and CSS grid** for layout, ensuring adaptability across screen sizes. The navigation is sticky, the project cards include a **hover effect** (lift + shadow), and a simple contact form is provided, making the design clean, modern, and user-friendly.

Task 2: AI-Generated Restaurant Landing Page

Scenario:

A local restaurant needs a simple landing page with a navigation bar, menu highlights, and an image gallery. The developer wants to quickly generate it using AI assistance.

- Use Copilot to create a navigation bar with links (Home, Menu, Gallery, Contact).
- Generate a menu section styled with CSS cards.
- Add a JavaScript-based image slider for the gallery, with Copilot suggesting the base code

PROMPT:

a local restaurant needs a simple landing page with a navigation bar, menu highlights, and an image gallery.

- create a navigation bar with links (home, menu, gallery, contact).
- generate a menu section styled with css cards.
- add a javascript-based image slider for the gallery, give all three codes in a single file

```

○ TASK2-14.HTML > @html > @body > @nav > @a
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <meta charset="UTF-8">
5    <title>Local Restaurant Landing Page</title>
6    <meta name="viewport" content="width=device-width, initial-scale=1.0">
7    <style>
8      /* Reset and base styles */
9      * { box-sizing: border-box; margin: 0; padding: 0; }
10     body { font-family: 'Segoe UI', Arial, sans-serif; background: #f8f8f8; color: #222; }
11     header { background: #b71c1c; color: #fff; padding: 2rem 0; text-align: center; }
12     nav {
13       background: #880088;
14       display: flex;
15       justify-content: center;
16       gap: 2rem;
17     }
18     nav a {
19       color: #fff;
20       text-decoration: none;
21       padding: 1rem 0.5rem;
22       font-weight: 500;
23       transition: color 0.2s;
24     }
25     nav a:hover {
26       color: #ffd54f;
27     }
28     main {
29       max-width: 1000px;
30       margin: 2rem auto;
31       padding: 0 1rem;
32     }
33     section { margin-bottom: 3rem; }
34     h2 { margin-bottom: 1rem; color: #b71c1c; }
35     /* Menu cards */
36     .menu-cards {
37       display: grid;
38       grid-template-columns: repeat(auto-fit, minmax(220px, 1fr));
39       gap: 2rem;
40     }
41     .menu-card {
42       background: #fff;
43       border-radius: 10px;
44       box-shadow: 0 2px 8px rgba(0,0,0,0.08);
45       padding: 1.5rem;
46       text-align: center;
47       transition: transform 0.2s, box-shadow 0.2s;
48     }
49     .menu-card:hover {
50       transform: translateY(-8px) scale(1.03);
51       box-shadow: 0 6px 20px rgba(183,28,28,0.15);
52       border: 1.5px solid #b71c1c;
53     }
54     .menu-card img {
55       width: 80px;
56       height: 80px;
57       object-fit: cover;
58       border-radius: 50%;
59       margin-bottom: 1rem;
60     }
61     .menu-card h3 {
62       margin-bottom: 0.5rem;
63       color: #880088;
64     }
65     .menu-card p {
66       + + + + +
67     }

```

```

65   .menu-card p {
66     margin-bottom: 0.5rem;
67     font-size: 1rem;
68   }
69   .menu-card .price {
70     color: #b71c1c;
71     font-weight: bold;
72     font-size: 1.1rem;
73   }
74   /* Gallery slider */
75   .gallery-slider {
76     position: relative;
77     max-width: 600px;
78     margin: 2rem auto;
79     background: #fff;
80     border-radius: 10px;
81     box-shadow: 0 2px 8px rgba(0,0,0,0.08);
82     overflow: hidden;
83   }
84   .gallery-slider img {
85     width: 100%;
86     height: 350px;
87     object-fit: cover;
88     display: block;
89   }
90   .slider-btn {
91     position: absolute;
92     top: 50%;
93     transform: translateY(-50%);
94     background: rgba(183,28,28,0.7);
95     color: #fff;
96     border: none;
97     font-size: 2rem;
98     padding: 0.5rem 1rem;
99     cursor: pointer;
100    border-radius: 50%;
101    z-index: 2;
102    transition: background 0.2s;
103  }
104  .slider-btn:hover {
105    background: #ffd54f;
106    color: #b71c1c;
107  }
108  .slider-btn.left { left: 10px; }
109  .slider-btn.right { right: 10px; }
110  /* Contact section */
111  .contact-info {
112    background: #fff;
113    padding: 1.5rem;
114    border-radius: 10px;
115    box-shadow: 0 2px 8px rgba(0,0,0,0.08);
116    max-width: 500px;
117    margin: auto;
118  }
119  .contact-info p {
120    margin-bottom: 0.5rem;
121  }
122  /* Responsive adjustments */
123  @media (max-width: 600px) {
124    nav { flex-direction: column; gap: 0; }
125    main { padding: 0 0.5rem; }
126    .gallery-slider img { height: 200px; }
127  }
128  </style>
129 </head>

```

```

129  </head>
130  <body>
131  <header>
132  <h1>Delicious Bites</h1>
133  <p>Your Local Taste Destination</p>
134  </header>
135  <nav>
136  <a href="#home">Home</a>
137  <a href="#menu">Menu</a>
138  <a href="#gallery">Gallery</a>
139  <a href="#contact">Contact</a>
140  </nav>
141  <main>
142  <section id="home">
143  <h2>Welcome</h2>
144  <p>
145  |   Experience the best of local cuisine at Delicious Bites. Fresh ingredients, cozy atmosphere, and friendly service await you!
146  </p>
147  </section>
148  <section id="menu">
149  <h2>Menu Highlights</h2>
150  <div class="menu-cards">
151  <div class="menu-card">
152  |   
153  |   <h3>Grilled Chicken</h3>
154  |   <p>Juicy grilled chicken breast served with seasonal veggies.</p>
155  |   <div class="price">RS. 450</div>
156  </div>
157  <div class="menu-card">
158  |   
159  |   <h3>Veggie Pizza</h3>
160  |   <p>Stone-baked pizza topped with fresh vegetables and mozzarella.</p>
161  |   <div class="price">RS. 300</div>
162  </div>
163  <div class="menu-card">
164  |   
165  |   <h3>Pasta Alfredo</h3>
166  |   <p>Creamy Alfredo pasta with parmesan and herbs.</p>
167  |   <div class="price">RS. 500</div>
168  </div>
169  <div class="menu-card">
170  |   
171  |   <h3>Chocolate Cake</h3>
172  |   <p>Rich chocolate cake with a molten center and vanilla ice cream.</p>
173  |   <div class="price">RS. 180</div>
174  </div>
175  </div>
176  </section>
177  <section id="gallery">
178  <h2>Gallery</h2>
179  <div class="gallery-slider" id="gallerySlider">
180  <button class="slider-btn left" onclick="prevSlide()">&#8592;</button>
181  
182  <button class="slider-btn right" onclick="nextSlide()">&#8594;</button>
183  </div>
184  </section>
185  <section id="contact">
186  <h2>Contact</h2>
187  <div class="contact-info">
188  <p><strong>Address:</strong> 123 Main Street, Your City</p>
189  <p><strong>Phone:</strong> (123) 456-7890</p>
190  <p><strong>Email:</strong> info@deliciousbites.com</p>
191  <p><strong>Hours:</strong> Mon-Sun: 10am - 10pm</p>
192  </div>
193  </section>
194  </main>

```

```

195  <script>
196  // JavaScript Image Slider
197  const images = [
198  "iii.jpg",
199  "https://d18sll4wlf9ku.cloudfront.net/theballantynehotel.com-1441752546/cms/imagepool/66944a6aeb951.jpg",
200  "https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQ6wMg8HI8puU9wf_iGNMAzVWIG7Vdg0XZdw&hl=en"
201 ];
202 let current = 0;
203 const sliderImage = document.getElementById('sliderImage');
204 function showSlide(idx) {
205  current = (idx + images.length) % images.length;
206  sliderImage.src = images[current];
207 }
208 function prevSlide() { showSlide(current - 1); }
209 function nextSlide() { showSlide(current + 1); }
210 // Optional: Auto-slide every 5 seconds
211 setInterval(() => { nextSlide(); }, 5000);
212 </script>
213 </body>
214 </html>

```

Delicious Bites
Your Local Taste Destination

Home Menu Gallery Contact

Welcome

Experience the best of local cuisine at Delicious Bites. Fresh ingredients, cozy atmosphere, and friendly service await you!

Menu Highlights

 Grilled Chicken Juicy grilled chicken breast served with seasonal veggies. RS.450	 Veggie Pizza Stone-baked pizza topped with fresh vegetables and mozzarella. RS.300	 Pasta Alfredo Creamy Alfredo pasta with parmesan and herbs. RS.600
 Chocolate Cake Rich chocolate cake with a molten center and vanilla ice cream. RS.180		

Gallery



Contact

Address: 123 Main Street, Your City
Phone: (123) 456-7890
Email: info@deliciousbites.com
Hours: Mon-Sun: 10am - 10pm

Observation:

The code designs a **simple and responsive restaurant landing page** with a sticky navigation bar, a menu section styled using CSS cards, and an interactive **JavaScript-based image slider** for the gallery. The layout is clean, user-friendly, and effectively highlights the restaurant's offerings while ensuring easy navigation.

Task 3: AI-Powered Event Registration Form

Scenario:

SR University is hosting a tech fest. They need a web-based registration form for students. The form must validate user input in real-time.

- Ask Copilot to generate an HTML form (fields: Name, Email, Phone, Department, Event Selection).
- Use Copilot to assist in adding CSS styling for an attractive form layout.
- Implement JavaScript validation (e.g., email format check, phone number length check) using Copilot's suggestions.

PROMPT:

SR University is hosting a tech fest. They need a web-based registration form for students. The form must validate user input in real-time.

- generate an HTML form (fields: Name, Email, Phone, Department, Event Selection).
- assist in adding CSS styling for an attractive form layout.
- Implement JavaScript validation (e.g., email format check, phone number length check) using Copilot's suggestions. Give js html css in single file


```

> TASK3-14.HTML > @ html > @ head > @ style > container
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <title>SR University Tech Fest Registration</title>
6      <meta name="viewport" content="width=device-width, initial-scale=1.0">
7      <style>
8          body {
9              background: #f4f8fb;
10             font-family: 'Segoe UI', Arial, sans-serif;
11             color: #222;
12         }
13         .container {
14             max-width: 420px;
15             margin: 40px auto;
16             background: #fff;
17             border-radius: 10px;
18             box-shadow: 0 4px 24px rgba(0,0,0,0.08);
19             padding: 2rem 2.5rem 2rem 2.5rem;
20         }
21         h2 {
22             text-align: center;
23             color: #1976d2;
24             margin-bottom: 1.5rem;
25         }
26         form label {
27             display: block;
28             margin-bottom: 0.3rem;
29             font-weight: 500;
30         }
31         form input, form select {
32             width: 100%;
33             padding: 0.7rem;
34             margin-bottom: 1.1rem;
35             border: 1px solid #bdbdbd;
36             border-radius: 6px;
37             font-size: 1rem;
38             transition: border 0.2s;
39         }
40         form input:focus, form select:focus {
41             border: 1.5px solid #1976d2;
42             outline: none;
43         }
44         .error {
45             color: #d32f2f;
46             font-size: 0.95em;
47             margin-top: -0.8rem;
48             margin-bottom: 0.8rem;
49             display: none;
50         }
51         button {
52             width: 100%;
53             background: #1976d2;
54             color: #fff;
55             border: none;
56             padding: 0.9rem;
57             border-radius: 6px;
58             font-size: 1.1rem;
59             font-weight: 600;
60             cursor: pointer;
61             transition: background 0.2s;
62         }
63         button:hover {
64             background: #125ea7;
65         }
66         @media (max-width: 500px) {
67             .container { padding: 1rem; }
68         }
69     </style>
70  </head>
71  <body>
72      <div class="container">
73          <h2>Tech Fest Registration</h2>
74          <form id="regForm" autocomplete="off" novalidate>
75              <label for="name">Name</label>
76              <input type="text" id="name" name="name" required>
77              <div class="error" id="nameError">Please enter your name.</div>
78
79              <label for="email">Email</label>
80              <input type="email" id="email" name="email" required>
81              <div class="error" id="emailError">Please enter a valid email address.</div>
82
83              <label for="phone">Phone</label>
84              <input type="tel" id="phone" name="phone" maxlength="10" required>
85              <div class="error" id="phoneError">Please enter a valid 10-digit phone number.</div>
86
87              <label for="dept">Department</label>
88              <select id="dept" name="dept" required>
89                  <option value="">---Select Department---</option>
90                  <option value="CSE">CSE</option>
91                  <option value="ECE">ECE</option>
92                  <option value="EEE">EEE</option>
93                  <option value="MECH">MECH</option>
94                  <option value="CIVIL">CIVIL</option>
95                  <option value="MBA">MBA</option>
96              </select>
97              <div class="error" id="deptError">Please select your department.</div>
98
99              <label for="event">Event Selection</label>
100             <select id="event" name="event" required>
101                 <option value="">---Select Event---</option>
102                 <option value="Hackathon">Hackathon</option>

```

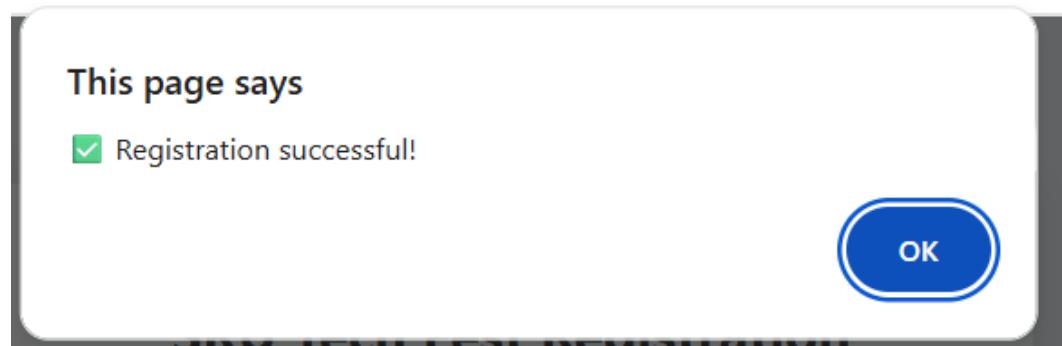
```
116 <script>
117     // Helper functions for validation
118     function validateName(name) {
119         return name.trim().length > 0;
120     }
121     function validateEmail(email) {
122         // Simple email regex
123         return /^[\w\.\-]+@[^\w\.\-]+\.[^\w\.\-]+$/i.test(email);
124     }
125     function validatePhone(phone) {
126         // Only digits, length 10
127         return /^\d{10}$/.test(phone);
128     }
129     function validateSelect(value) {
130         return value != "";
131     }
132
133     // Real-time validation
134     document.getElementById("name").addEventListener("input", function() {
135         document.getElementById("nameError").style.display = validateName(this.value) ? "none" : "block";
136     });
137     document.getElementById("email").addEventListener("input", function() {
138         document.getElementById("emailError").style.display = validateEmail(this.value) ? "none" : "block";
139     });
140     document.getElementById("phone").addEventListener("input", function() {
141         document.getElementById("phoneError").style.display = validatePhone(this.value) ? "none" : "block";
142     });
143     document.getElementById("dept").addEventListener("change", function() {
144         document.getElementById("deptError").style.display = validateSelect(this.value) ? "none" : "block";
145     });
146     document.getElementById("event").addEventListener("change", function() {
147         document.getElementById("eventError").style.display = validateSelect(this.value) ? "none" : "block";
148     });
149
150     // On Form submit
151     document.getElementById("regForm").addEventListener("submit", function(e) {
152         e.preventDefault();
153         let valid = true;
154
155         // Validate all fields
156         if (!validateName(this.name.value)) {
157             document.getElementById("nameError").style.display = "block";
158             valid = false;
159         }
160         if (!validateEmail(this.email.value)) {
161             document.getElementById("emailError").style.display = "block";
162             valid = false;
163         }
164         if (!validatePhone(this.phone.value)) {
165             document.getElementById("phoneError").style.display = "block";
166             valid = false;
167         }
168         if (!validateSelect(this.dept.value)) {
169             document.getElementById("deptError").style.display = "block";
170             valid = false;
171         }
172         if (!validateSelect(this.event.value)) {
173             document.getElementById("eventError").style.display = "block";
174             valid = false;
175         }
176
177         if (valid) {
178             this.style.display = "none";
179             document.getElementById("successMsg").style.display = "block";
180         }
181     });
182 </script>
183 </body>
184 </html>
```

OUTPUT:

The screenshot shows a web browser window titled "SRU Tech Fest Registration". The URL in the address bar is "C:/Users/SANIYA%20TAHSEEN/OneDrive/Desktop/ai%20python%20lab/a.html?". The form itself has a light gray background and a white input area. It contains the following fields:

- Name:** Simra Tahseen
- Email:** 2503A51L17@sru.edu.in
- Phone:** 9867452112
- Department:** CSE
- Event Selection:** Hackathon

A large blue "Register" button is located at the bottom of the form.



Observation:

The code provides a **modern, responsive registration form** with fields for student details and event selection. It uses **CSS for an attractive layout** and **JavaScript for real-time validation** (checking email format, phone length, and required fields). Error messages are displayed instantly, and a success message confirms registration, making the form both user-friendly and reliable.

Task 4: AI-Assisted E-Commerce Product Page

Scenario:

A startup wants a basic e-commerce product page to display products with prices and an “Add to Cart” button.

- Use Copilot to generate a grid-based product catalog in HTML/CSS.
- Implement a JavaScript “Add to Cart” functionality with Copilot’s guidance.
- Modify Copilot’s suggestions to include a cart counter at the top-right corner of the page.

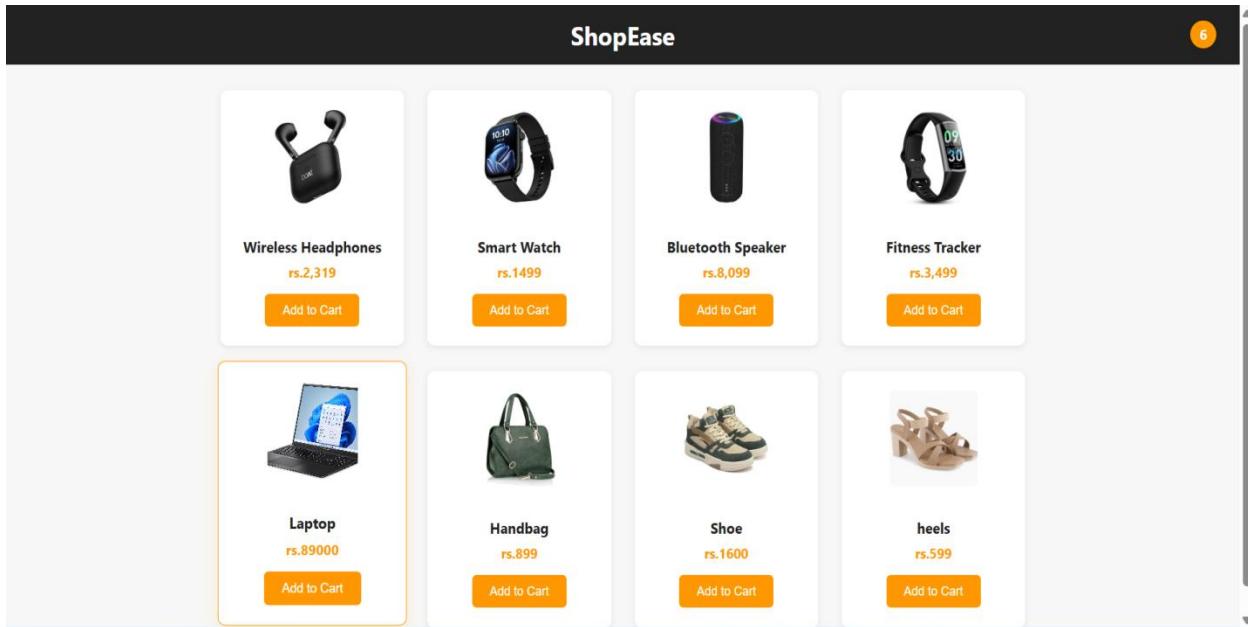
PROMPT:

A startup wants a basic e-commerce product page to display products with prices and an “Add to Cart” button.

- generate a grid-based product catalog in HTML/CSS.
- Implement a JavaScript “Add to Cart” functionality
- include a cart counter at the top-right corner of the page. give html,css and js in the same file

```
0 index.html > </head> > </head> > </style> > <div>.container
1   <!DOCTYPE html>
2   <html lang="en">
3     <head>
4       <meta charset="UTF-8">
5       <title>Startup E-Commerce Product Page</title>
6       <meta name="viewport" content="width=device-width, initial-scale=1.0">
7     </head>
8     <body>
9       <font-family: 'Sage UI', Arial, sans-serif;
10      <background: #f7f7f7;
11      margin: 0;
12      padding: 0;
13    >
14    <header>
15      <background: #e6e6fa;
16      color: #fff;
17      padding: 1rem 0;
18      position: relative;
19    </header>
20    <.container>
21      <max-width: 1100px;
22      margin: 2rem auto;
23      padding: 0 1rem;
24    </>
25    <h1>
26      <margin: 0;
27      text-align: center;
28      font-size: 3rem;
29    </h1>
30    <.cart-counter>
31      <position: absolute;
32      top: 1.2rem;
33      right: 2rem;
34      background: #fff9999;
35      color: #fff;
36      border-radius: 50%;
37      width: 2.2rem;
38      height: 2.2rem;
39      display: flex;
40      align-items: center;
41      justify-content: center;
42      font-weight: bold;
43      font-size: 1.1rem;
44      box-shadow: 0 2px 8px rgba(0,0,0,0.08);
45    </>
46    <.product-grid>
47      <display: grid;
48      grid-template-columns: repeat(auto-fit, minmax(230px, 1fr));
49      gap: 2rem;
50    </>
51    <.product-card>
52      <background: #fff;
53      border-radius: 10px;
54      box-shadow: 0 2px 8px rgba(0,0,0,0.08);
55      padding: 1.5rem;
56      text-align: center;
57      transition: transform 0.2s, box-shadow 0.2s;
58    </>
59    <.product-card:hover>
60      <transform: translateX(-8px) scale(1.03);
61      box-shadow: 0 6px 20px rgba(255,153,0,0.15);
62      border: 1.5px solid #ff9999;
63    </>
64    <.product-card img>
65      <width: 120px;
66      height: 120px;
67      object-fit: cover;
68      border-radius: 8px;
69      margin-bottom: 1rem;
70    </>
71    <.product-card h3>
72      <margin-bottom: 0.5rem;
73      color: #222;
74    </>
75    <.product-card .price>
76      <color: #ff9999;
77      font-weight: bold;
78      font-size: 1.1rem;
79      margin-bottom: 1rem;
80      display: block;
81    </>
82    <.add-btn>
83      <background: #fff9999;
84      color: #fff;
85      border: none;
86      padding: 0.7rem 1.5rem;
87      border-radius: 6px;
88      font-size: 1rem;
89      cursor: pointer;
90      font-weight: 500;
91      transition: background 0.2s;
92    </>
93    <.add-btn:hover>
94      <background: #f6e9c6;
95    </>
96    <@media (max-width: 600px) {
97      <.container { padding: 0 0.5rem; }
98      <.cart-counter { right: 1rem; }
99    </>
100  </>
101 </style>
102 </>
103 </head>
104 </body>
105 <header>
106   <h1>ShopEase</h1>
107   <div class="cart-counter" id="cartCounter"></div>
108 </header>
109 <div class="container">
110   <div class="product-grid">
111     <div class="product-card">
112       
113       <h3>Wireless Headphones</h3>
114       <span class="price">rs.2,339</span>
115       <button class="add-btn" onclick="addToCart()">Add to Cart</button>
116     </div>
117     <div class="product-card">
118       
119       <h3>Smart Watch</h3>
120       <span class="price">rs.1,699</span>
121       <button class="add-btn" onclick="addToCart()">Add to Cart</button>
122     </div>
123     <div class="product-card">
124       
125       <h3>Bluetooth Speaker</h3>
126       <span class="price">rs.8,099</span>
127     </div>
128   </div>
129 </div>
```

OUTPUT:



OBSERVATION:

The code creates a **basic e-commerce product page** using HTML, CSS, and JavaScript in a single file. It displays products in a **responsive grid layout** with images, names, prices, and an “**Add to Cart**” button. A **cart counter** is placed at the top-right corner inside the header and dynamically updates whenever the user clicks “Add to Cart.” The implementation is simple, lightweight, and serves as a starting point for building a full shopping cart system.