**AI ASSISTED CODING LAB 14.1**

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BATCH 14

Lab 14: Web Design Application – AI-Assisted HTML/CSS/JS  
Generation  
Lab Objectives  
• Design functional, visually appealing web applications using  
HTML, CSS, and JavaScript with AI assistance.  
• Apply responsive, accessible, and interactive design  
Week7 -  
Monday

principles.  
• Create practical UI components for real-world web applications.  
• Use AI to optimize layout, UX, and performance.

**Task 1 – Portfolio Website Design**  
You are building a personal portfolio website to showcase your work.  
Requirements:  
• Create sections for About Me, Projects, and Contact.  
• Use AI to:  
o Suggest color palettes and typography.  
o Create a responsive layout with Grid/Flexbox.  
o Add smooth scrolling navigation.

**PROMPT :**Builda personal portfolio website to showcase work\

**CODE :**

<!DOCTYPEhtml>

<htmllang="en">

<head>

  <metacharset="UTF-8"/>

  <metaname="viewport"content="width=device-width, initial-scale=1.0"/>

  <title>My Portfolio</title>

  <!-- Google Fonts -->

  <linkhref="https://fonts.googleapis.com/css2?family=Poppins:wght@600&family=Open+Sans&display=swap"rel="stylesheet">

  <style>

    /\* ====== GLOBAL STYLES ====== \*/

    :root {

      --primary: #2d89ef;

      --accent: #ffb900;

      --bg: #f9fafb;

      --text: #111827;

    }

    \* {

      margin: 0;

      padding: 0;

      box-sizing: border-box;

    }

    body {

      font-family: 'Open Sans', sans-serif;

      background: var(--bg);

      color: var(--text);

      scroll-behavior: smooth;

    }

    header {

      background: var(--primary);

      color: white;

      padding: 1rem2rem;

      position: sticky;

      top: 0;

      z-index: 1000;

    }

    nav {

      display: flex;

      justify-content: space-between;

      align-items: center;

    }

    navh1 {

      font-family: 'Poppins', sans-serif;

      font-size: 1.5rem;

    }

    navul {

      display: flex;

      list-style: none;

      gap: 1.5rem;

    }

    nava {

      text-decoration: none;

      color: white;

      font-weight: 600;

      transition: color0.3s;

    }

    nava:hover {

      color: var(--accent);

    }

    section {

      padding: 4rem2rem;

      max-width: 1000px;

      margin: auto;

    }

    h2 {

      font-family: 'Poppins', sans-serif;

      font-size: 2rem;

      color: var(--primary);

      text-align: center;

      margin-bottom: 1rem;

    }

    p {

      text-align: center;

      line-height: 1.6;

    }

    /\* ====== ABOUT ====== \*/

    .about {

      display: flex;

      flex-direction: column;

      align-items: center;

      gap: 1.5rem;

    }

    .aboutimg {

      width: 150px;

      height: 150px;

      border-radius: 50%;

      object-fit: cover;

      border: 4pxsolidvar(--primary);

    }

    /\* ====== PROJECTS ====== \*/

    .projects-grid {

      display: grid;

      grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));

      gap: 1.5rem;

      margin-top: 2rem;

    }

    .project-card {

      background: white;

      border-radius: 10px;

      box-shadow: 04px8pxrgba(0,0,0,0.1);

      transition: transform 0.3s;

      overflow: hidden;

    }

    .project-card:hover {

      transform: translateY(-8px);

    }

    .project-cardimg {

      width: 100%;

      height: 180px;

      object-fit: cover;

    }

    .project-cardh3 {

      font-family: 'Poppins', sans-serif;

      margin: 0.8rem;

    }

    .project-cardp {

      margin: 00.8rem1rem0.8rem;

      font-size: 0.9rem;

    }

    /\* ====== CONTACT ====== \*/

    form {

      display: flex;

      flex-direction: column;

      gap: 1rem;

      max-width: 500px;

      margin: 2remauto;

    }

    input, textarea {

      padding: 0.8rem;

      border: 1pxsolid#ccc;

      border-radius: 6px;

      font-family: inherit;

    }

    button {

      background: var(--primary);

      color: white;

      padding: 0.8rem;

      border: none;

      border-radius: 6px;

      font-weight: bold;

      cursor: pointer;

      transition: background0.3s;

    }

    button:hover {

      background: var(--accent);

      color: var(--text);

    }

    footer {

      background: var(--primary);

      color: white;

      text-align: center;

      padding: 1rem;

      margin-top: 3rem;

    }

    /\* ====== RESPONSIVE ====== \*/

    @media (max-width: 600px) {

      navul {

        flex-direction: column;

        gap: 0.5rem;

      }

    }

  </style>

</head>

<body>

  <!-- ====== HEADER ====== -->

  <header>

    <nav>

      <h1>My Portfolio</h1>

      <ul>

        <li><ahref="#about">About</a></li>

        <li><ahref="#projects">Projects</a></li>

        <li><ahref="#contact">Contact</a></li>

      </ul>

    </nav>

  </header>

  <!-- ====== ABOUT SECTION ====== -->

  <sectionid="about"class="about">

  <h2>About Me</h2>

  <imgsrc="https://sraap.in/students\_uploads/2403A510C7\_P.jpg"alt="Pradeep Guptha">

  <p>Hello! I'm <strong>Pradeep Guptha</strong>, a passionate web developer who loves creating modern, responsive, and user-friendly websites using HTML, CSS, and JavaScript. I focus on performance, accessibility, and clean design.</p>

</section>

  <!-- ====== PROJECTS SECTION ====== -->

  <sectionid="projects">

    <h2>Projects</h2>

    <divclass="projects-grid">

      <divclass="project-card">

        <imgsrc="https://images.unsplash.com/photo-1522202176988-66273c2fd55f?w=600"alt="Project 1">

        <h3>Portfolio Website</h3>

        <p>A personal website to showcase skills and projects, designed with HTML, CSS, and JS.</p>

      </div>

      <divclass="project-card">

        <imgsrc="https://images.unsplash.com/photo-1498050108023-c5249f4df085?w=600"alt="Project 2">

        <h3>E-Commerce Store</h3>

        <p>An online shop demo featuring product listings, search, and cart functionality.</p>

      </div>

      <divclass="project-card">

        <imgsrc="https://images.unsplash.com/photo-1581092795360-fd1b0f27b23a?w=600"alt="Project 3">

        <h3>Weather App</h3>

        <p>A weather app that shows real-time data using OpenWeatherMap API and dynamic styling.</p>

      </div>

    </div>

  </section>

  <!-- ====== CONTACT SECTION ====== -->

  <sectionid="contact">

    <h2>Contact Me</h2>

    <formonsubmit="sendMessage(event)">

      <inputtype="text"id="name"placeholder="Your Name"required>

      <inputtype="email"id="email"placeholder="Your Email"required>

      <textareaid="message"placeholder="Your Message"rows="5"required></textarea>

      <buttontype="submit">Send Message</button>

    </form>

  </section>

  <footer>

    <p>© 2025 Pradeep Guptha | Designed with ❤️ using HTML, CSS & JavaScript</p>

  </footer>

  <!-- ====== JAVASCRIPT ====== -->

  <script>

    // Smooth scroll enhancement for browsers without native support

    document.querySelectorAll('a[href^="#"]').forEach(anchor=> {

      anchor.addEventListener('click', function(e) {

        e.preventDefault();

        document.querySelector(this.getAttribute('href')).scrollIntoView({

          behavior:'smooth'

        });

      });

    });

    // Simple form handler

    functionsendMessage(event) {

      event.preventDefault();

      constname = document.getElementById('name').value;

      alert(`Thank you, ${name}! Your message has been sent successfully.`);

      event.target.reset();

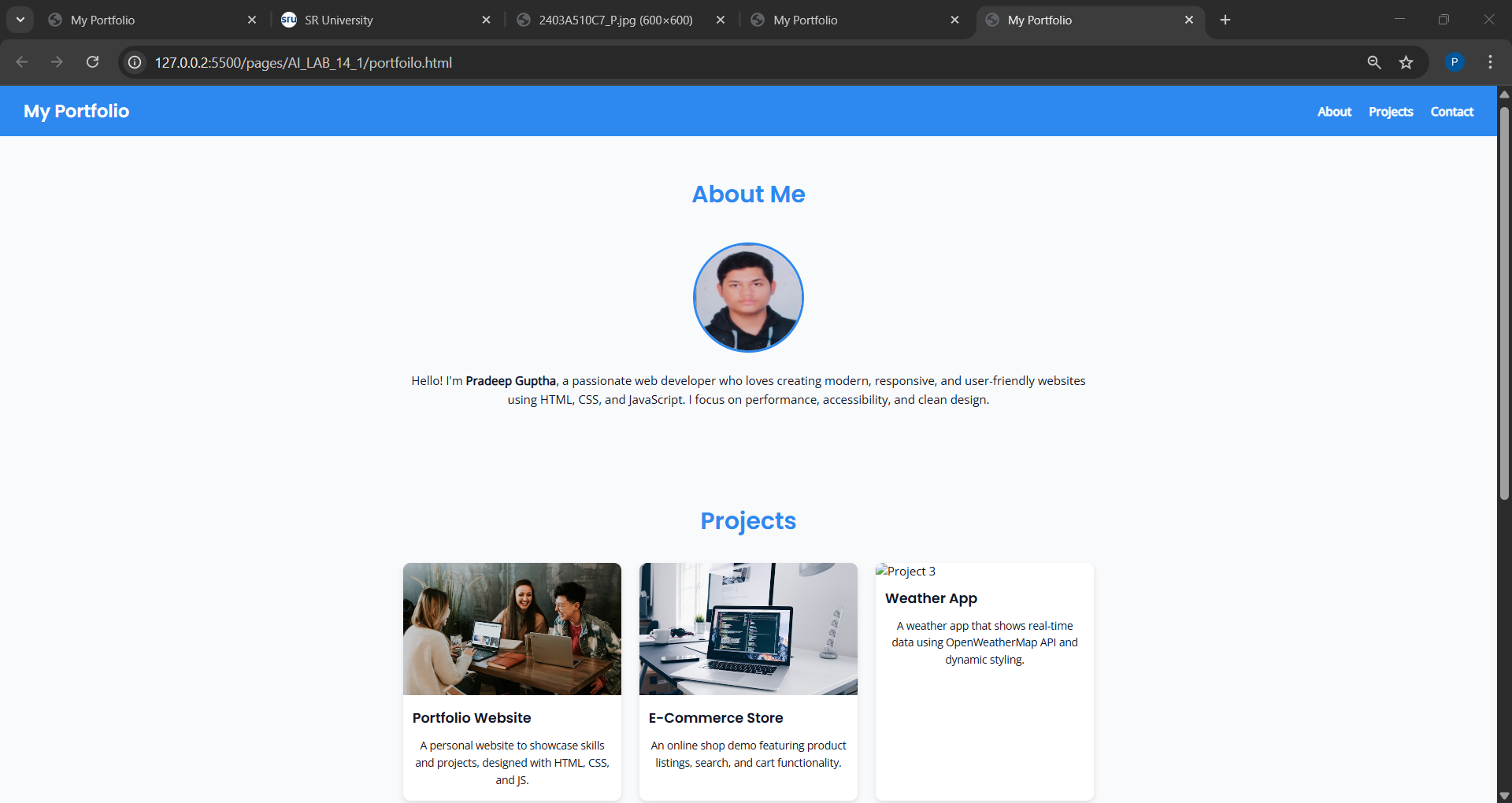
    }

  </script>

</body>

</html>

**OUTPUT :**

****

**Task 2 – Online Store Product Page**  
Design a product display page for an online store.  
Requirements:  
• Display product image, title, price, and "Add to Cart" button.  
• Use AI to:  
o Style with BEM methodology.  
o Make layout responsive.  
o Add hover effects and "Add to Cart" alert.

**PROMPT :**

Design a product display page for an online store.

**CODE :** <!DOCTYPEhtml>

<htmllang="en">

<head>

  <metacharset="utf-8"/>

  <metaname="viewport"content="width=device-width,initial-scale=1"/>

  <title>ShopLite — Amazon-inspired Dark Store (32 products)</title>

  <linkhref="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css"rel="stylesheet">

  <linkhref="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.11.3/font/bootstrap-icons.css"rel="stylesheet">

  <style>

    :root{

      --bg:#0f1720; --card:#0b1220; --muted:#98a0ac; --accent:#ffb300;

    }

    html,body{background:var(--bg);color:#e6eef8;height:100%;}

    a{color:var(--accent);}

    .navbar, .footer{background:#071022}

    .hero.carousel-itemimg{height:420px;object-fit:cover}

    .product-card{background:linear-gradient(180deg, rgba(255,255,255,0.02), rgba(255,255,255,0.01));border:1pxsolidrgba(255,255,255,0.03);}

    .product-cardimg{height:180px;object-fit:cover}

    .price{color:#dff0c6;font-weight:700}

    .old-price{opacity:.55;text-decoration:line-through;margin-left:.5rem;color:var(--muted)}

    .scrolling-wrapper{display:flex;gap:1rem;overflow-x:auto;padding-bottom:8px}

    .scrolling-wrapper::-webkit-scrollbar{height:8px}

    .scrolling-wrapper::-webkit-scrollbar-thumb{background:#2b2f36;border-radius:6px}

    .badge-cat{background:#122233;color:#aee;padding:0.18rem.5rem;border-radius:999px}

    .filter-card{background:linear-gradient(180deg, rgba(255,255,255,0.01), rgba(255,255,255,0.02));border:1pxsolidrgba(255,255,255,0.03)}

    .btn-accent{background:var(--accent);border-color:var(--accent);color:#0b1220}

    .rating{color:#ffd166}

    .text-muted-2{color:#94a3b8}

    @media (max-width:575px){ .hero.carousel-itemimg{height:220px} }

  </style>

</head>

<body>

<!-- NAVBAR -->

<navclass="navbar navbar-expand-lg navbar-dark sticky-top">

  <divclass="container-fluid px-3">

    <aclass="navbar-brand d-flex align-items-center gap-2"href="#"><iclass="bi bi-bag-fill fs-4 text-warning"></i><spanclass="fw-bold">ShopLite</span></a>

    <buttonclass="navbar-toggler"type="button"data-bs-toggle="collapse"data-bs-target="#navMain"><spanclass="navbar-toggler-icon"></span></button>

    <divclass="collapse navbar-collapse"id="navMain">

      <formid="navSearchForm"class="d-flex mx-auto w-50"role="search">

        <divclass="input-group">

          <inputid="navSearchInput"class="form-control"type="search"placeholder="Search products, brands, categories"aria-label="Search">

          <buttonclass="btn btn-accent"type="submit"title="Search"><iclass="bi bi-search"></i></button>

        </div>

      </form>

      <ulclass="navbar-nav ms-auto align-items-center">

        <liclass="nav-item me-3"><aclass="nav-link"href="#">Hello, Sign in</a></li>

        <liclass="nav-item me-3"><aclass="nav-link"href="#">Orders</a></li>

        <liclass="nav-item">

          <buttonclass="btn btn-outline-light position-relative"type="button"data-bs-toggle="offcanvas"data-bs-target="#cartOffcanvas"aria-controls="cartOffcanvas">

            <iclass="bi bi-cart3"></i>

            <spanid="cartCountBadge"class="position-absolute top-0 start-100 translate-middle badge rounded-pill bg-danger">0</span>

          </button>

        </li>

      </ul>

    </div>

  </div>

</nav>

<!-- HERO SLIDER -->

<sectionclass="hero mb-4">

  <divid="heroCarousel"class="carousel slide"data-bs-ride="carousel">

    <divclass="carousel-inner">

      <divclass="carousel-item active">

        <imgsrc="https://images.unsplash.com/photo-1517336714731-489689fd1ca8?w=1600&h=420&fit=crop"class="d-block w-100"alt="banner1">

      </div>

      <divclass="carousel-item">

        <imgsrc="https://images.unsplash.com/photo-1542291026-7eec264c27ff?w=1600&h=420&fit=crop"class="d-block w-100"alt="banner2">

      </div>

      <divclass="carousel-item">

        <imgsrc="https://images.unsplash.com/photo-1512499617640-c2f999098c8e?w=1600&h=420&fit=crop"class="d-block w-100"alt="banner3">

      </div>

    </div>

    <buttonclass="carousel-control-prev"type="button"data-bs-target="#heroCarousel"data-bs-slide="prev"><spanclass="carousel-control-prev-icon"></span></button>

    <buttonclass="carousel-control-next"type="button"data-bs-target="#heroCarousel"data-bs-slide="next"><spanclass="carousel-control-next-icon"></span></button>

  </div>

</section>

<!-- MAIN: Sidebar + Grid -->

<mainclass="container mb-5">

  <divclass="row g-4">

    <!-- FILTER SIDEBAR -->

    <asideclass="col-12 col-lg-3 order-2 order-lg-1">

      <divclass="p-3 filter-card rounded-3">

        <h5class="mb-3">Filters</h5>

        <divclass="mb-3">

          <labelclass="form-label small text-muted-2 mb-2">Category</label>

          <divid="categoryChips"class="d-flex flex-wrap gap-2"></div>

        </div>

        <divclass="mb-3">

          <labelfor="priceRange"class="form-label small text-muted-2">Max price: <strongid="priceValue">₹50,000</strong></label>

          <inputtype="range"class="form-range"id="priceRange"min="100"max="100000"step="100"value="50000">

        </div>

        <divclass="mb-3">

          <labelclass="form-label small text-muted-2">Minimum rating</label>

          <selectid="minRating"class="form-select">

            <optionvalue="0">Any</option>

            <optionvalue="3">3★& up</option>

            <optionvalue="4">4★& up</option>

            <optionvalue="4.5">4.5★& up</option>

          </select>

        </div>

        <divclass="mb-3">

          <labelclass="form-label small text-muted-2">Sort</label>

          <selectid="sortBy"class="form-select">

            <optionvalue="featured">Featured</option>

            <optionvalue="price-asc">Price: Low to High</option>

            <optionvalue="price-desc">Price: High to Low</option>

            <optionvalue="rating-desc">Rating</option>

            <optionvalue="newest">Newest</option>

          </select>

        </div>

        <divclass="d-grid gap-2">

          <buttonid="applyFilters"class="btn btn-accent">Apply</button>

          <buttonid="resetFilters"class="btn btn-outline-light">Reset</button>

        </div>

      </div>

    </aside>

    <!-- PRODUCTS GRID -->

    <sectionclass="col-12 col-lg-9 order-1 order-lg-2">

      <divclass="d-flex justify-content-between align-items-center mb-3">

        <h4class="mb-0">All Products</h4>

        <smallclass="text-muted-2">Showing <spanid="showingCount">0</span> of <spanid="totalCount">0</span></small>

      </div>

      <divid="productGrid"class="row row-cols-1 row-cols-md-2 row-cols-lg-3 row-cols-xl-4 g-4"></div>

      <navclass="mt-4"><ulid="pagination"class="pagination justify-content-center"></ul></nav>

    </section>

  </div>

</main>

<!-- HORIZONTAL CAROUSELS -->

<sectionclass="container mb-5">

  <h6class="text-muted-2">Customers also bought</h6>

  <divid="carouselRow1"class="scrolling-wrapper py-3 mb-4"></div>

  <h6class="text-muted-2">Top rated in Electronics</h6>

  <divid="carouselRow2"class="scrolling-wrapper py-3 mb-4"></div>

  <h6class="text-muted-2">Home & Kitchen picks</h6>

  <divid="carouselRow3"class="scrolling-wrapper py-3 mb-4"></div>

</section>

<!-- NEWSLETTER -->

<sectionclass="container text-center mb-5">

  <divclass="p-4 filter-card rounded-3">

    <h5>Get deals in your inbox</h5>

    <formid="newsletterForm"class="row g-2 justify-content-center mt-2">

      <divclass="col-md-4"><inputid="newsEmail"type="email"class="form-control"placeholder="Email address"required></div>

      <divclass="col-md-auto"><buttonclass="btn btn-accent">Subscribe</button></div>

    </form>

  </div>

</section>

<!-- FOOTER -->

<footerclass="footer py-4 text-muted">

  <divclass="container text-center small">

    © <spanid="year"></span> ShopLite — Inspired design

  </div>

</footer>

<!-- CART OFFCANVAS -->

<divclass="offcanvas offcanvas-end text-white"tabindex="-1"id="cartOffcanvas">

  <divclass="offcanvas-header">

    <h5class="offcanvas-title">Your Cart</h5>

    <buttontype="button"class="btn-close btn-close-white"data-bs-dismiss="offcanvas"></button>

  </div>

  <divclass="offcanvas-body d-flex flex-column bg-dark">

    <divid="cartItems"class="mb-3"></div>

    <divclass="mt-auto">

      <divclass="d-flex justify-content-between align-items-center mb-3"><strong>Total</strong><strongid="cartTotal">₹0</strong></div>

      <divclass="d-grid gap-2">

        <buttonid="checkoutBtn"class="btn btn-accent">Proceed to Checkout</button>

        <buttonclass="btn btn-outline-light"data-bs-dismiss="offcanvas">Continue Shopping</button>

      </div>

    </div>

  </div>

</div>

<!-- QUICK VIEW MODAL -->

<divclass="modal fade"id="quickViewModal"tabindex="-1">

  <divclass="modal-dialog modal-lg modal-dialog-centered">

    <divclass="modal-content bg-dark text-white">

      <divclass="modal-header border-0">

        <h5class="modal-title"id="qvTitle"></h5>

        <buttontype="button"class="btn-close btn-close-white"data-bs-dismiss="modal"></button>

      </div>

      <divclass="modal-body">

        <divclass="row g-3">

          <divclass="col-md-6"><imgid="qvImg"src=""class="img-fluid rounded"alt=""></div>

          <divclass="col-md-6">

            <pid="qvCat"class="small text-muted-2"></p>

            <divclass="h4"><spanid="qvPrice"class="price"></span><smallid="qvOld"class="old-price"></small></div>

            <divid="qvRating"class="rating small mb-2"></div>

            <pid="qvDesc"class="small text-muted-2"></p>

            <divclass="d-flex gap-2 mt-3">

              <buttonid="qvAdd"class="btn btn-accent"><iclass="bi bi-cart-plus"></i> Add to cart</button>

              <buttonclass="btn btn-outline-light"data-bs-dismiss="modal">Close</button>

            </div>

          </div>

        </div>

      </div>

    </div>

  </div>

</div>

<!-- BOOTSTRAP JS -->

<scriptsrc="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>

<script>

/\* ---------- Data: 32 Products (images use fixed size params to avoid broken images) ---------- \*/

constPRODUCTS = [

  {id:1,name:'AeroPhone X12',category:'Electronics',price:14999,oldPrice:17999,rating:4.3,img:'https://images.unsplash.com/photo-1580894894512-2b9bdf0f9f87?w=800&h=600&fit=crop',desc:'Compact smartphone with great camera',featured:true,createdAt:1},

  {id:2,name:'Nimbus Laptop 14',category:'Electronics',price:55999,oldPrice:68999,rating:4.5,img:'https://images.unsplash.com/photo-1526170375885-4d8ecf77b99f?w=800&h=600&fit=crop',desc:'Lightweight laptop for work & play',featured:true,createdAt:2},

  {id:3,name:'Pulse Earbuds',category:'Electronics',price:2499,oldPrice:3499,rating:4.1,img:'https://images.unsplash.com/photo-1505740420928-5e560c06d30e?w=800&h=600&fit=crop',desc:'Noise-cancelling earbuds',featured:false,createdAt:3},

  {id:4,name:'TabPro 10',category:'Electronics',price:19999,oldPrice:22999,rating:4.0,img:'https://images.unsplash.com/photo-1593642634367-d91a135587b5?w=800&h=600&fit=crop',desc:'Tablet for entertainment & notes',featured:false,createdAt:4},

  {id:5,name:'Stride Running Shoes',category:'Fashion',price:2499,oldPrice:3499,rating:4.2,img:'https://images.unsplash.com/photo-1491553895911-0055eca6402d?w=800&h=600&fit=crop',desc:'Breathable running shoes',featured:true,createdAt:5},

  {id:6,name:'Metro Jacket',category:'Fashion',price:3499,oldPrice:4999,rating:4.4,img:'https://images.unsplash.com/photo-1521572163474-6864f9cf17ab?w=800&h=600&fit=crop',desc:'Warm stylish jacket',featured:false,createdAt:6},

  {id:7,name:'Classic Wristwatch',category:'Fashion',price:4499,oldPrice:5999,rating:4.6,img:'https://images.unsplash.com/photo-1517336714731-489689fd1ca8?w=800&h=600&fit=crop',desc:'Analog watch with leather strap',featured:true,createdAt:7},

  {id:8,name:'KitchenPro Blender',category:'Home',price:1799,oldPrice:2499,rating:4.0,img:'https://images.unsplash.com/photo-1588167056543-6a3c1c56f8f4?w=800&h=600&fit=crop',desc:'Smoothie blender with multi-speed',featured:false,createdAt:8},

  {id:9,name:'Comfort Pillow',category:'Home',price:999,oldPrice:1299,rating:3.9,img:'https://images.unsplash.com/photo-1505691723518-36a7d1a3c71a?w=800&h=600&fit=crop',desc:'Memory foam pillow',featured:false,createdAt:9},

  {id:10,name:'Spark LED Lamp',category:'Home',price:699,oldPrice:999,rating:4.1,img:'https://images.unsplash.com/photo-1505692794400-8fe5b5f4e3a3?w=800&h=600&fit=crop',desc:'Adjustable bedside lamp',featured:false,createdAt:10},

  {id:11,name:'ProCook Pan',category:'Home',price:1299,oldPrice:1699,rating:4.3,img:'https://images.unsplash.com/photo-1518976024611-28bf4a67a6f6?w=800&h=600&fit=crop',desc:'Non-stick frying pan',featured:false,createdAt:11},

  {id:12,name:'Yoga Mat Deluxe',category:'Sports',price:799,oldPrice:1199,rating:4.2,img:'https://images.unsplash.com/photo-1599058917219-9f2e1e4bde3f?w=800&h=600&fit=crop',desc:'High grip yoga mat',featured:false,createdAt:12},

  {id:13,name:'Cricket Bat Pro',category:'Sports',price:5499,oldPrice:6999,rating:4.5,img:'https://images.unsplash.com/photo-1521412644187-c49fa049e84d?w=800&h=600&fit=crop',desc:'Willow bat for all levels',featured:true,createdAt:13},

  {id:14,name:'The Wanderer (Novel)',category:'Books',price:399,oldPrice:499,rating:4.7,img:'https://images.unsplash.com/photo-1512820790803-83ca734da794?w=800&h=600&fit=crop',desc:'Bestselling adventure novel',featured:false,createdAt:14},

  {id:15,name:'Notebook Set',category:'Books',price:299,oldPrice:399,rating:4.0,img:'https://images.unsplash.com/photo-1516979187457-637abb4f9353?w=800&h=600&fit=crop',desc:'Journal with ruled pages',featured:false,createdAt:15},

  {id:16,name:'Grooming Kit',category:'Beauty',price:1599,oldPrice:2199,rating:4.1,img:'https://images.unsplash.com/photo-1543163521-1bf539c55f3b?w=800&h=600&fit=crop',desc:'All-in-one grooming kit',featured:false,createdAt:16},

  {id:17,name:'Face Serum',category:'Beauty',price:899,oldPrice:1299,rating:4.4,img:'https://images.unsplash.com/photo-1585238341979-2fe6c9f8e6f9?w=800&h=600&fit=crop',desc:'Hydrating face serum',featured:true,createdAt:17},

  {id:18,name:'Cordless Drill',category:'Tools',price:3499,oldPrice:4499,rating:4.2,img:'https://images.unsplash.com/photo-1519744792095-2f2205e87b6f?w=800&h=600&fit=crop',desc:'Powerful drill with battery',featured:false,createdAt:18},

  {id:19,name:'Smart Bulb (4-pack)',category:'Home',price:1999,oldPrice:2499,rating:4.3,img:'https://images.unsplash.com/photo-1505691723518-36a7d1a3c71a?w=800&h=600&fit=crop',desc:'Color changing smart bulbs',featured:false,createdAt:19},

  {id:20,name:'Desk Chair Ergonomic',category:'Home',price:8999,oldPrice:11999,rating:4.0,img:'https://images.unsplash.com/photo-1540574163026-643ea20ade25?w=800&h=600&fit=crop',desc:'Comfort chair for long work',featured:false,createdAt:20},

  {id:21,name:'Action Camera',category:'Electronics',price:7999,oldPrice:9999,rating:4.1,img:'https://images.unsplash.com/photo-1519181245277-cffeb31da2a2?w=800&h=600&fit=crop',desc:'Waterproof action camera',featured:false,createdAt:21},

  {id:22,name:'Wireless Charger',category:'Electronics',price:1299,oldPrice:1699,rating:4.0,img:'https://images.unsplash.com/photo-1545239705-6c6be3a8a7d6?w=800&h=600&fit=crop',desc:'Fast charging pad',featured:false,createdAt:22},

  {id:23,name:'Sunglasses UV',category:'Fashion',price:799,oldPrice:1299,rating:3.8,img:'https://images.unsplash.com/photo-1503341455253-b2e723bb3dbb?w=800&h=600&fit=crop',desc:'Polarized sunglasses',featured:false,createdAt:23},

  {id:24,name:'Kids Toy Set',category:'Toys',price:599,oldPrice:799,rating:4.2,img:'https://images.unsplash.com/photo-1512621776951-a57141f2eefd?w=800&h=600&fit=crop',desc:'Educational toy set',featured:false,createdAt:24},

  {id:25,name:'BBQ Grill',category:'Home',price:12999,oldPrice:15999,rating:4.4,img:'https://images.unsplash.com/photo-1506368249639-73a05d6f6488?w=800&h=600&fit=crop',desc:'Outdoor BBQ grill',featured:true,createdAt:25},

  {id:26,name:'Gaming Mouse',category:'Electronics',price:1499,oldPrice:1999,rating:4.3,img:'https://images.unsplash.com/photo-1517336714731-489689fd1ca8?w=800&h=600&fit=crop',desc:'Ergonomic gaming mouse',featured:false,createdAt:26},

  {id:27,name:'Wireless Keyboard',category:'Electronics',price:2199,oldPrice:2799,rating:4.0,img:'https://images.unsplash.com/photo-1512499617640-c2f999098c8e?w=800&h=600&fit=crop',desc:'Slim bluetooth keyboard',featured:false,createdAt:27},

  {id:28,name:'Electric Kettle',category:'Home',price:1299,oldPrice:1599,rating:4.1,img:'https://images.unsplash.com/photo-1541542684-415b7d6a4f72?w=800&h=600&fit=crop',desc:'Quick boil kettle',featured:false,createdAt:28},

  {id:29,name:'Protein Powder',category:'Health',price:2499,oldPrice:3299,rating:4.2,img:'https://images.unsplash.com/photo-1598970434795-0c54fe7c0642?w=800&h=600&fit=crop',desc:'Whey protein supplement',featured:false,createdAt:29},

  {id:30,name:'Portable Speaker',category:'Electronics',price:3499,oldPrice:4499,rating:4.3,img:'https://images.unsplash.com/photo-1518449032-1b8e3d4c6d70?w=800&h=600&fit=crop',desc:'Bluetooth portable speaker',featured:false,createdAt:30},

  {id:31,name:'Leather Wallet',category:'Fashion',price:1199,oldPrice:1599,rating:4.1,img:'https://images.unsplash.com/photo-1520975916764-2c1a8a2f2c2b?w=800&h=600&fit=crop',desc:'Genuine leather wallet',featured:false,createdAt:31},

  {id:32,name:'Running Socks (3pk)',category:'Fashion',price:499,oldPrice:699,rating:4.0,img:'https://images.unsplash.com/photo-1520975916764-2c1a8a2f2c2b?w=800&h=600&fit=crop',desc:'Comfort sports socks',featured:false,createdAt:32}

];

/\* ---------- State ---------- \*/

letstate = { query:'', categories:newSet(PRODUCTS.map(p=>p.category)), maxPrice:50000, minRating:0, sortBy:'featured', page:1, pageSize:12 };

letCART = {}; // id => qty

/\* ---------- Helpers ---------- \*/

const$ = (s,r=document)=>r.querySelector(s);

const$$ = (s,r=document)=>Array.from(r.querySelectorAll(s));

constcurrency = n=>`₹${n.toLocaleString('en-IN')}`;

functionstarRating(r){ constfull=Math.floor(r), half=(r-full)>=0.5?1:0, empty=5-full-half; return'★'.repeat(full)+(half?'½':'')+'☆'.repeat(empty); }

/\* ---------- Render Category Chips ---------- \*/

functionrenderCategoryChips(){

  constcontainer = $('#categoryChips'); container.innerHTML='';

  constcats = Array.from(newSet(PRODUCTS.map(p=>p.category))).sort();

  cats.forEach(c=>{

    constbtn = document.createElement('button');

    btn.type='button';

    btn.className='btn btn-sm btn-outline-light';

    btn.textContent = c;

    btn.dataset.cat = c;

    btn.addEventListener('click', ()=>{ if(state.categories.has(c)) state.categories.delete(c); elsestate.categories.add(c); renderFilters(); render(); });

    container.appendChild(btn);

  });

}

functionrenderFilters(){

  $$('#categoryChips button').forEach(btn=>{ btn.classList.toggle('btn-accent', state.categories.has(btn.dataset.cat)); });

  $('#priceRange').value = state.maxPrice;

  $('#priceValue').textContent = currency(state.maxPrice);

  $('#minRating').value = state.minRating;

  $('#sortBy').value = state.sortBy;

}

/\* ---------- Filter, Sort, Paginate ---------- \*/

functiongetFiltered(){

  letitems = PRODUCTS.filter(p=>state.categories.has(p.category));

  items = items.filter(p=>p.price<= state.maxPrice&&p.rating>= state.minRating);

  if(state.query) {

    constq = state.query.toLowerCase();

    items = items.filter(p=>p.name.toLowerCase().includes(q) || p.desc.toLowerCase().includes(q) || p.category.toLowerCase().includes(q));

  }

  switch(state.sortBy){

    case'price-asc': items.sort((a,b)=>a.price-b.price); break;

    case'price-desc': items.sort((a,b)=>b.price-a.price); break;

    case'rating-desc': items.sort((a,b)=>b.rating-a.rating); break;

    case'newest': items.sort((a,b)=>b.createdAt-a.createdAt); break;

    default: items.sort((a,b)=> (b.featured - a.featured) || (b.rating - a.rating));

  }

  returnitems;

}

functionpaginate(items){

  consttotal = items.length; constpages = Math.max(1, Math.ceil(total/state.pageSize));

  if(state.page>pages) state.page=1;

  conststart = (state.page-1) \* state.pageSize;

  return { slice:items.slice(start, start+state.pageSize), total, pages };

}

functionrenderPagination(totalPages){

  constul = $('#pagination'); ul.innerHTML = '';

  constmk = (label,page,disabled=false,active=false)=>`<li class="page-item ${disabled?'disabled':''}${active?'active':''}"><a class="page-link" href="#" data-page="${page}">${label}</a></li>`;

  ul.insertAdjacentHTML('beforeend', mk('&laquo;', Math.max(1,state.page-1), state.page===1));

  for(letp=1;p<=totalPages;p++) ul.insertAdjacentHTML('beforeend', mk(p,p,false,state.page===p));

  ul.insertAdjacentHTML('beforeend', mk('&raquo;', Math.min(totalPages,state.page+1), state.page===totalPages));

}

/\* ---------- Product Grid ---------- \*/

functioncardHTML(p){

  return`

  <div class="col">

    <div class="card product-card h-100 shadow-sm">

      <img src="${p.img}" class="card-img-top" alt="${p.name}">

      <div class="card-body d-flex flex-column">

        <div class="d-flex justify-content-between align-items-start mb-1">

          <small class="badge-cat small">${p.category}</small>

          <small class="text-muted small">${p.rating.toFixed(1)}★</small>

        </div>

        <h6 class="card-title mb-1">${p.name}</h6>

        <p class="text-muted-2 small mb-2">${p.desc}</p>

        <div class="mt-auto d-flex justify-content-between align-items-center">

          <div>

            <div class="price">${currency(p.price)}</div>

            <div class="old-price small">${currency(p.oldPrice)}</div>

          </div>

          <div class="d-flex flex-column align-items-end">

            <div class="btn-group-vertical">

              <button class="btn btn-sm btn-outline-light" data-action="quick" data-id="${p.id}" title="Quick view"><i class="bi bi-eye"></i></button>

              <button class="btn btn-sm btn-accent" data-action="add" data-id="${p.id}" title="Add to cart"><i class="bi bi-cart-plus"></i></button>

            </div>

          </div>

        </div>

      </div>

    </div>

  </div>`;

}

functionrender(){

  constfiltered = getFiltered();

  $('#totalCount').textContent = PRODUCTS.length;

  $('#showingCount').textContent = filtered.length;

  const { slice, total, pages } = paginate(filtered);

  $('#productGrid').innerHTML = slice.map(cardHTML).join('');

  renderPagination(pages);

  attachCardListeners();

}

/\* ---------- Carousels Rows ---------- \*/

functionrenderCarousels(){

  constrow1 = $('#carouselRow1'), row2 = $('#carouselRow2'), row3 = $('#carouselRow3');

  row1.innerHTML=''; row2.innerHTML=''; row3.innerHTML='';

  consttop = PRODUCTS.filter(p=>p.featured).slice(0,12);

  constelectronics = PRODUCTS.filter(p=>p.category==='Electronics').slice(0,12);

  consthome = PRODUCTS.filter(p=>p.category==='Home').slice(0,12);

  [[row1,top],[row2,electronics],[row3,home]].forEach(([el,arr])=>{

    arr.forEach(p=>{

      constcard = document.createElement('div');

      card.className='card p-2';

      card.style.minWidth='200px';

      card.innerHTML = `<img src="${p.img}" class="card-img-top rounded" alt="${p.name}"><div class="card-body small text-white-50 p-2"><div>${p.name}</div><div class="price small">${currency(p.price)}</div></div>`;

      el.appendChild(card);

    });

  });

}

/\* ---------- Auto-scroll Carousels ---------- \*/

functionstartAutoScroll(){

  ['carouselRow1','carouselRow2','carouselRow3'].forEach(id=>{

    constel = document.getElementById(id); if(!el) return;

    letpos = 0, speed = 0.6, raf;

    functionstep(){ pos += speed; if(pos>el.scrollWidth - el.clientWidth) pos = 0; el.scrollLeft = pos; raf = requestAnimationFrame(step); }

    raf = requestAnimationFrame(step);

    el.addEventListener('mouseenter', ()=>cancelAnimationFrame(raf));

    el.addEventListener('mouseleave', ()=> { raf = requestAnimationFrame(step); });

  });

}

/\* ---------- Card Buttons ---------- \*/

functionattachCardListeners(){

  $$('[data-action="quick"]').forEach(b=>b.addEventListener('click', (e)=>{ constid=+e.currentTarget.dataset.id; openQuickView(id); }));

  $$('[data-action="add"]').forEach(b=>b.addEventListener('click', (e)=>{ constid=+e.currentTarget.dataset.id; addToCart(id,1); }));

}

/\* ---------- Quick View ---------- \*/

functionopenQuickView(id){

  constp = PRODUCTS.find(x=>x.id===id); if(!p) return;

  $('#qvTitle').textContent = p.name;

  $('#qvImg').src = p.img;

  $('#qvCat').textContent = p.category;

  $('#qvPrice').textContent = currency(p.price);

  $('#qvOld').textContent = currency(p.oldPrice);

  $('#qvRating').textContent = `${p.rating} / 5  ${starRating(p.rating)}`;

  $('#qvDesc').textContent = p.desc;

  $('#qvAdd').onclick = ()=>{ addToCart(id,1); bootstrap.Modal.getOrCreateInstance('#quickViewModal').hide(); bootstrap.Offcanvas.getOrCreateInstance('#cartOffcanvas').show(); };

  newbootstrap.Modal('#quickViewModal').show();

}

/\* ---------- Cart ---------- \*/

functionaddToCart(id,qty=1){

  CART[id] = (CART[id]||0) + qty;

  renderCart();

}

functionremoveFromCart(id){

  deleteCART[id];

  renderCart();

}

functionchangeQty(id,qty){

  if(qty<=0) removeFromCart(id); elseCART[id]=qty;

  renderCart();

}

functionrenderCart(){

  constcontainer = $('#cartItems'); container.innerHTML='';

  lettotal = 0;

  constids = Object.keys(CART).map(x=>+x);

  if(ids.length===0){ container.innerHTML = `<div class="text-center text-muted-2">Your cart is empty.</div>`; $('#cartCountBadge').textContent = 0; $('#cartTotal').textContent = currency(0); return; }

  ids.forEach(id=>{

    constp = PRODUCTS.find(x=>x.id===id); constqty = CART[id]; constline = p.price \* qty; total += line;

    constdiv = document.createElement('div'); div.className='d-flex gap-2 align-items-center mb-3';

    div.innerHTML = `<img src="${p.img}" style="width:64px;height:64px;object-fit:cover" class="rounded">

      <div class="flex-grow-1 small">

        <div class="fw-bold">${p.name}</div>

        <div class="text-muted-2 small">${currency(p.price)} x ${qty} = ${currency(line)}</div>

        <div class="mt-2 d-flex gap-2">

          <input type="number" min="0" value="${qty}" class="form-control form-control-sm" style="width:80px" data-cart-qty data-id="${id}">

          <button class="btn btn-sm btn-outline-light" data-cart-remove data-id="${id}"><i class="bi bi-trash"></i></button>

        </div>

      </div>`;

    container.appendChild(div);

  });

  $('#cartCountBadge').textContent = ids.length;

  $('#cartTotal').textContent = currency(total);

  $$('[data-cart-qty]').forEach(inp=>inp.addEventListener('change', (e)=>{ constid=+e.target.dataset.id; constq=+e.target.value; changeQty(id,q); }));

  $$('[data-cart-remove]').forEach(b=>b.addEventListener('click', (e)=>{ constid=+e.currentTarget.dataset.id; removeFromCart(id); }));

}

/\* ---------- Search & Filters binding ---------- \*/

$('#navSearchForm').addEventListener('submit', (e)=>{ e.preventDefault(); state.query = $('#navSearchInput').value.trim(); state.page = 1; render(); });

$('#applyFilters').addEventListener('click', ()=>{ state.page = 1; render(); });

$('#resetFilters').addEventListener('click', ()=>{ state = {...state, categories:newSet(PRODUCTS.map(p=>p.category)), maxPrice:50000, minRating:0, sortBy:'featured', page:1}; renderFilters(); render(); });

$('#priceRange').addEventListener('input',(e)=>{ state.maxPrice = +e.target.value; $('#priceValue').textContent = currency(state.maxPrice); });

$('#minRating').addEventListener('change',(e)=>{ state.minRating = parseFloat(e.target.value); });

$('#sortBy').addEventListener('change',(e)=>{ state.sortBy = e.target.value; });

$('#pagination').addEventListener('click',(e)=>{ consta = e.target.closest('a[data-page]'); if(!a) return; e.preventDefault(); state.page = +a.dataset.page; render(); });

$('#newsletterForm').addEventListener('submit',(e)=>{ e.preventDefault(); if(!$('#newsEmail').checkValidity()){ e.stopPropagation(); $('#newsletterForm').classList.add('was-validated'); return; } alert('Thanks! You are subscribed.'); $('#newsletterForm').reset(); });

/\* ---------- Init ---------- \*/

(functioninit(){

  document.getElementById('year').textContent = newDate().getFullYear();

  renderCategoryChips();

  renderFilters();

  render();

  renderCarousels();

  startAutoScroll();

  renderCart();

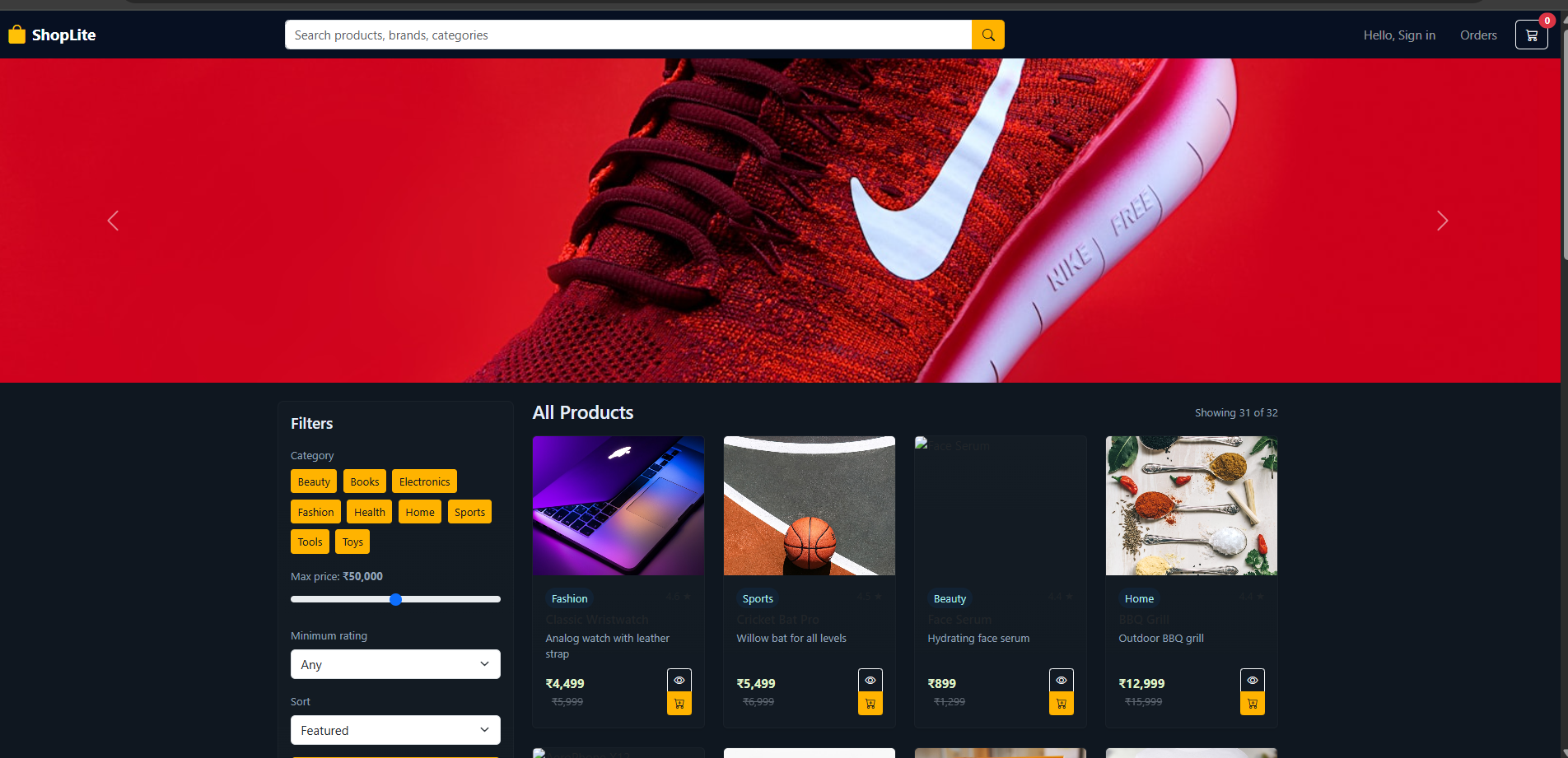
})();

</script>

</body>

</html>

**OUTPUT :**

****

**Task 3 – Event Registration Form**  
Build an event registration form for a conference.  
Requirements:  
• Collect name, email, phone number, and session selection.  
• Use AI to:  
o Add form validation with JavaScript.  
o Make the form accessible with labels and ARIA.  
o Style with a professional look.

**PROMPT :** Build an event registration form for a conference

**CODE :**

<!DOCTYPEhtml>

<htmllang="en">

<head>

  <metacharset="UTF-8"/>

  <metaname="viewport"content="width=device-width, initial-scale=1.0"/>

  <title>Conference Registration Form</title>

  <!-- Google Fonts -->

  <linkhref="https://fonts.googleapis.com/css2?family=Poppins:wght@600&family=Open+Sans&display=swap"rel="stylesheet">

  <style>

    :root {

      --primary: #0052cc;

      --accent: #ffb900;

      --bg: #f7f9fc;

      --text: #1a1a1a;

      --error: #e63946;

    }

    \* {

      box-sizing: border-box;

      margin: 0;

      padding: 0;

    }

    body {

      font-family: 'Open Sans', sans-serif;

      background: var(--bg);

      color: var(--text);

      display: flex;

      justify-content: center;

      align-items: center;

      min-height: 100vh;

      padding: 20px;

    }

    .container {

      background: white;

      border-radius: 10px;

      box-shadow: 05px20pxrgba(0, 0, 0, 0.1);

      width: 100%;

      max-width: 450px;

      padding: 2rem;

      text-align: center;

    }

    h1 {

      font-family: 'Poppins', sans-serif;

      color: var(--primary);

      margin-bottom: 1rem;

    }

    p {

      color: #555;

      margin-bottom: 2rem;

    }

    form {

      display: flex;

      flex-direction: column;

      gap: 1rem;

      text-align: left;

    }

    label {

      font-weight: 600;

      margin-bottom: 0.3rem;

      display: block;

    }

    input, select {

      padding: 0.8rem;

      border: 1pxsolid#ccc;

      border-radius: 6px;

      font-size: 1rem;

      width: 100%;

      transition: border-color 0.3s;

    }

    input:focus, select:focus {

      border-color: var(--primary);

      outline: none;

      box-shadow: 005pxrgba(0,82,204,0.2);

    }

    .error {

      color: var(--error);

      font-size: 0.9rem;

    }

    button {

      background: var(--primary);

      color: white;

      border: none;

      padding: 0.9rem;

      border-radius: 6px;

      font-size: 1rem;

      cursor: pointer;

      transition: background0.3s;

      font-family: 'Poppins', sans-serif;

    }

    button:hover {

      background: var(--accent);

      color: var(--text);

    }

    .success {

      color: green;

      text-align: center;

      margin-top: 1rem;

      font-weight: bold;

    }

  </style>

</head>

<body>

  <divclass="container"role="form"aria-labelledby="formTitle">

    <h1id="formTitle">Conference Registration</h1>

    <p>Please fill out the form below to register for the event.</p>

    <formid="registrationForm"novalidate>

      <div>

        <labelfor="name">Full Name:</label>

        <inputtype="text"id="name"name="name"placeholder="Enter your full name"aria-required="true"required/>

        <spanclass="error"id="nameError"></span>

      </div>

      <div>

        <labelfor="email">Email Address:</label>

        <inputtype="email"id="email"name="email"placeholder="example@domain.com"aria-required="true"required/>

        <spanclass="error"id="emailError"></span>

      </div>

      <div>

        <labelfor="phone">Phone Number:</label>

        <inputtype="tel"id="phone"name="phone"placeholder="e.g. 9876543210"aria-required="true"required/>

        <spanclass="error"id="phoneError"></span>

      </div>

      <div>

        <labelfor="session">Select Session:</label>

        <selectid="session"name="session"aria-required="true"required>

          <optionvalue="">-- Select a session --</option>

          <optionvalue="webdev">Web Development Trends 2025</option>

          <optionvalue="ai">AI in Everyday Life</option>

          <optionvalue="cybersecurity">Cybersecurity & Ethics</option>

          <optionvalue="cloud">Cloud Computing Essentials</option>

        </select>

        <spanclass="error"id="sessionError"></span>

      </div>

      <buttontype="submit">Register Now</button>

      <pclass="success"id="successMsg"></p>

    </form>

  </div>

  <script>

    // FORM VALIDATION SCRIPT

    constform = document.getElementById('registrationForm');

    constnameField = document.getElementById('name');

    constemailField = document.getElementById('email');

    constphoneField = document.getElementById('phone');

    constsessionField = document.getElementById('session');

    constsuccessMsg = document.getElementById('successMsg');

    form.addEventListener('submit', function(e) {

      e.preventDefault();

      // Reset errors

      document.querySelectorAll('.error').forEach(el=>el.textContent = '');

      successMsg.textContent = '';

      letvalid = true;

      // Name validation

      if (nameField.value.trim().length<3) {

        document.getElementById('nameError').textContent = 'Please enter your full name.';

        valid = false;

      }

      // Email validation (simple regex)

      constemailPattern = /^[^]+@[^]+\.[a-z]{2,3}$/;

      if (!emailPattern.test(emailField.value.trim())) {

        document.getElementById('emailError').textContent = 'Please enter a valid email address.';

        valid = false;

      }

      // Phone validation (10 digits)

      constphonePattern = /^[0-9]{10}$/;

      if (!phonePattern.test(phoneField.value.trim())) {

        document.getElementById('phoneError').textContent = 'Enter a valid 10-digit phone number.';

        valid = false;

      }

      // Session validation

      if (sessionField.value === "") {

        document.getElementById('sessionError').textContent = 'Please select a session.';

        valid = false;

      }

      // If valid, show success

      if (valid) {

        successMsg.textContent = '✅ Registration successful! Thank you for joining.';

        form.reset();

      }

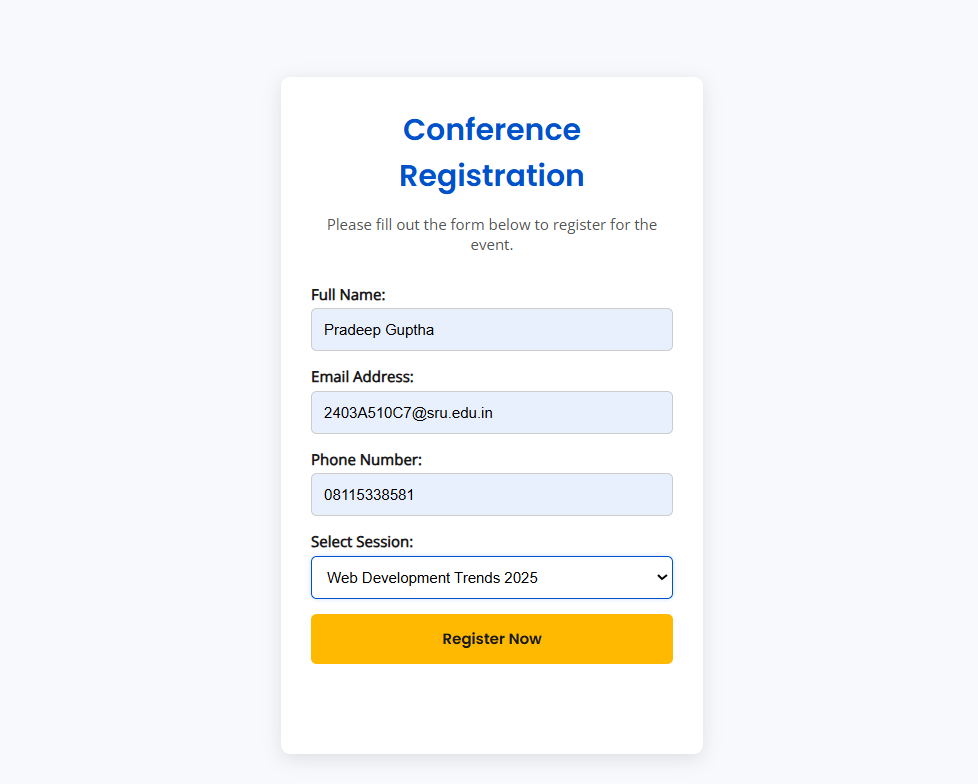
    });

  </script>

</body>

</html>

**OUTPUT :**

****

## **Task Description #4**(Data – Fetch API & Render List with Loading/Error States) • Task: Fetch JSON from an API and render items to the DOM with loading and error UI. • Instructions: o Ask AI to write fetch() logic, create DOM nodes safely, and add skeleton/loading text.

**PROMPT :**Fetch JSON from an API and render items to the DOM  
with loading and error UI.

**CODE :**

<!DOCTYPEhtml>

<htmllang="en">

<head>

  <metacharset="UTF-8">

  <metaname="viewport"content="width=device-width, initial-scale=1.0">

  <title>Fetch API – Loading & Error Handling</title>

  <style>

    :root {

      --primary: #2563eb;

      --bg: #f9fafb;

      --text: #111827;

      --error: #dc2626;

      --card-bg: #fff;

    }

    body {

      font-family: "Open Sans", sans-serif;

      background: var(--bg);

      color: var(--text);

      display: flex;

      flex-direction: column;

      align-items: center;

      padding: 2rem;

      min-height: 100vh;

    }

    h1 {

      color: var(--primary);

      font-family: "Poppins", sans-serif;

      margin-bottom: 1.5rem;

      text-align: center;

    }

    #status {

      font-size: 1.1rem;

      margin: 1rem0;

      color: gray;

      text-align: center;

    }

    .grid {

      display: grid;

      grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));

      gap: 1rem;

      width: 100%;

      max-width: 1000px;

    }

    .card {

      background: var(--card-bg);

      border-radius: 10px;

      box-shadow: 04px10pxrgba(0, 0, 0, 0.1);

      padding: 1rem;

      transition: transform 0.3s;

    }

    .card:hover {

      transform: translateY(-6px);

    }

    .cardh3 {

      color: var(--primary);

      margin-bottom: 0.5rem;

    }

    .error {

      color: var(--error);

      font-weight: bold;

      text-align: center;

      margin-top: 1rem;

    }

    .skeleton {

      height: 150px;

      background: linear-gradient(90deg, #e5e7eb25%, #f3f4f650%, #e5e7eb75%);

      background-size: 200%100%;

      animation: shimmer 1.2sinfinite;

      border-radius: 8px;

    }

    @keyframesshimmer {

      0% { background-position: 200%0; }

      100% { background-position: -200%0; }

    }

    button {

      margin-top: 1rem;

      padding: 0.7rem1.5rem;

      border: none;

      border-radius: 6px;

      background: var(--primary);

      color: white;

      font-weight: bold;

      cursor: pointer;

      transition: background0.3s;

    }

    button:hover {

      background: #1e40af;

    }

  </style>

</head>

<body>

  <h1>🎯 Fetch API – Render JSON with Loading & Error States</h1>

  <pid="status">Loading data, please wait...</p>

  <divclass="grid"id="dataContainer">

    <!-- Cards or skeletons will appear here -->

  </div>

  <buttonid="reloadBtn">Reload Data</button>

  <script>

    // ✅ Change API\_URL to an invalid one to test error UI

    constAPI\_URL = "https://jsonplaceholder.typicode.com/posts";

    // Example broken URL for testing: "https://jsonplaceholder.typicode.com/invalid-endpoint"

    constcontainer = document.getElementById("dataContainer");

    conststatusText = document.getElementById("status");

    constreloadBtn = document.getElementById("reloadBtn");

    // Show loading skeletons

    functionshowSkeleton(count = 6) {

      container.innerHTML = "";

      for (leti = 0; i<count; i++) {

        constskeleton = document.createElement("div");

        skeleton.className = "skeleton";

        container.appendChild(skeleton);

      }

    }

    // Render JSON items safely

    functionrenderItems(data) {

      container.innerHTML = "";

      data.slice(0, 6).forEach(item=> {

        constcard = document.createElement("div");

        card.className = "card";

        consttitle = document.createElement("h3");

        title.textContent = item.title;

        constbody = document.createElement("p");

        body.textContent = item.body;

        card.appendChild(title);

        card.appendChild(body);

        container.appendChild(card);

      });

    }

    // Fetch API data with loading + error handling

    asyncfunctionfetchData() {

      showSkeleton();

      statusText.textContent = "Loading data, please wait...";

      try {

        constresponse = awaitfetch(API\_URL);

        if (!response.ok) {

          thrownewError(`HTTP Error: ${response.status}`);

        }

        constjsonData = awaitresponse.json();

        renderItems(jsonData);

        statusText.textContent = "✅ Data loaded successfully!";

      } catch (error) {

        console.error("Fetch error:", error);

        container.innerHTML = `

          <p class="error">⚠️ Failed to fetch data. Please check your connection or try again.</p>

          <div style="text-align:center;">

            <button onclick="fetchData()">Retry</button>

          </div>

        `;

        statusText.textContent = "❌ Error fetching data.";

      }

    }

    // Button to reload manually

    reloadBtn.addEventListener("click", fetchData);

    // Auto-load data on startup

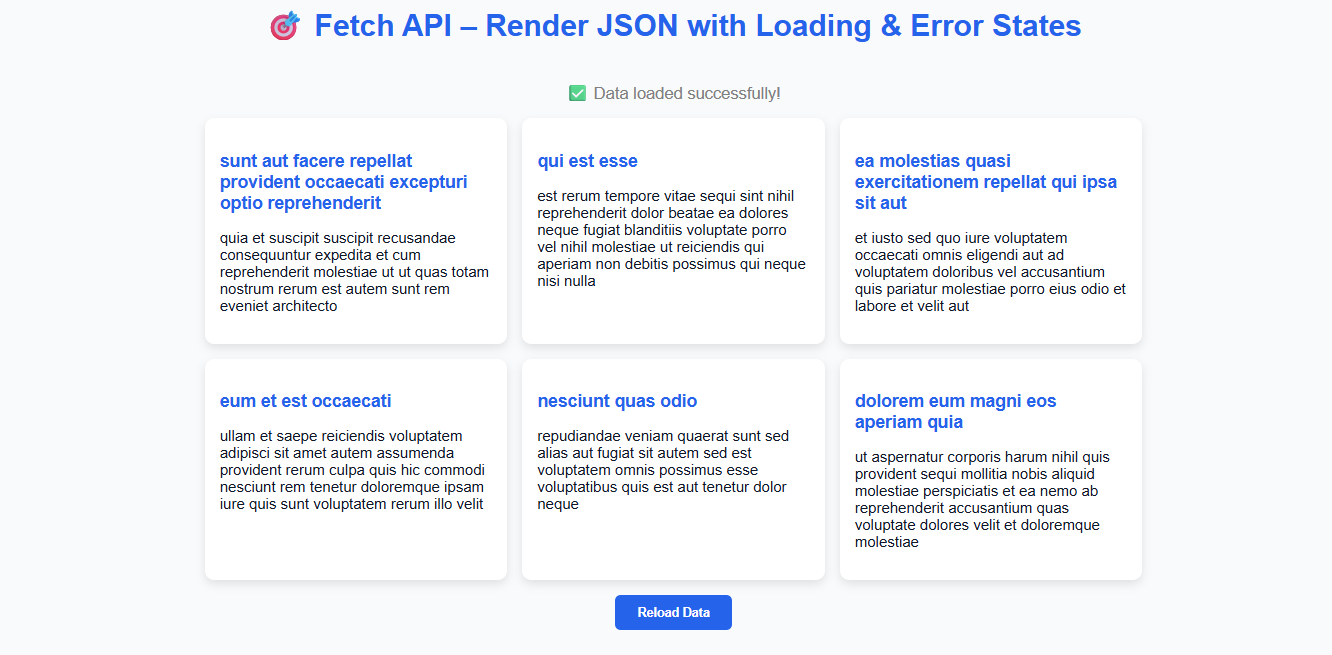
    fetchData();

  </script>

</body>

</html>

**OUTPUT :**

****