

## Task 1

### PERSONAL PORTFOLIO

```
personal-portfolio - Task 1 code.html - 1m  
1  !DOCTYPE html>  
2  <html lang="en">  
3  <head>  
4      <meta charset="UTF-8">  
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">  
6      <title>Muhammad Khan · CS portfolio</title>  
7      <!-- Font Awesome 6 (free) for icons -->  
8      <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0-beta3/css/all.min.css">  
9      <style>  
10         * {  
11             margin: 0;  
12             padding: 0;  
13             box-sizing: border-box;  
14         }  
15         body {  
16             background: #f4f8fe;  
17             font-family: 'Inter', system-ui, -apple-system, BlinkMacSystemFont, 'Segoe UI', Roboto, sans-serif;  
18             line-height: 1.6;  
19             color: #1e293b;  
20             padding: 2rem 1rem;  
21         }  
22         .container {  
23             max-width: 1200px;  
24             margin: 0 auto;  
25             background: white;  
26             border-radius: 2rem;  
27             box-shadow: 0 25px 50px -12px rgba(0,0,0,0.15);  
28             overflow: hidden;  
29             padding: 2.5rem 2rem;  
30         }  
31         h1, h2, h3 {  
32             font-weight: 600;  
33             letter-spacing: -0.02em;  
34         }  
35         h2 {  
36             font-size: 2rem;  
37             margin-bottom: 1.5rem;  
38             border-left: 6px solid #2563eb;  
39             padding-left: 1rem;  
40             color: #0f172a;  
41         }  
42         .section {  
43             margin-bottom: 3.5rem;  
44         }  
45         /* intro flex */  
46         .intro-flex {  
47             display: flex;  
48             flex-wrap: wrap;  
49             gap: 2rem;  
50             align-items: center;  
51             justify-content: space-between;  
52             background: linear-gradient(145deg, #f8fafc 0%, #ffffff 100%);  
53             border-radius: 1.8rem;  
54             padding: 2rem 2rem;  
55             margin-bottom: 2rem;  
56             border: 1px solid #e2e8f0;  
57         }  
58         .intro-text h1 {  
59             font-size: 2.8rem;  
60             line-height: 1.2;  
61             margin-bottom: 0.5rem;  
62             color: #0f172a;  
63         }  
64         .intro-text .tagline {  
65             font-size: 1.3rem;  
66             color: #2563eb;  
67             font-weight: 500;  
68             margin-bottom: 1rem;  
69         }  
70     </style>
```

```
70  .intro-text p {
71    max-width: 600px;
72    color: #334155;
73  }
74  .intro-avatar {
75    width: 160px;
76    height: 160px;
77    border-radius: 50%;
78    box-shadow: 0 20px 25px -5px rgba(37,99,235,0.3);
79    border: 4px solid white;
80    overflow: hidden;
81  }
82  .intro-avatar img {
83    width: 100%;
84    height: 100%;
85    object-fit: cover;
86  }
87  /* grid helpers */
88  .grid-2, .grid-3 {
89    display: grid;
90    gap: 2rem;
91  }
92  .grid-2 { grid-template-columns: repeat(auto-fit, minmax(300px,1fr)); }
93  .grid-3 { grid-template-columns: repeat(auto-fit, minmax(260px,1fr)); }
94
95  .card {
96    background: white;
97    border: 1px solid #e9eef3;
98    border-radius: 1.5rem;
99    padding: 1.5rem;
100   transition: 0.2s ease;
101   box-shadow: 0 4px 6px -2px rgba(0,0,0,0.02);
102 }
103
104  .card:hover {
105    border-color: #b9d5fe;
106    box-shadow: 0 12px 20px -10px rgba(59,130,246,0.15);
107  }
108  .badge {
109    background: #e6f0ff;
110    color: #1e4a8b;
111    padding: 0.25rem 0.8rem;
112    border-radius: 40px;
113    font-size: 0.8rem;
114    font-weight: 500;
115    display: inline-block;
116    margin-right: 0.5rem;
117    margin-bottom: 0.5rem;
118  }
119  .tech-stack {
120    margin: 1rem 0 0.5rem;
121  }
122  .icon {
123    color: #2563eb;
124    width: 2rem;
125    margin-right: 0.5rem;
126    text-align: center;
127  }
128  .flex-row {
129    display: flex;
130    align-items: center;
131    gap: 0.5rem;
132    flex-wrap: wrap;
133  }
134  hr {
135    border: 1px solid #eef2f6;
136    margin: 2rem 0;
```

```
135      "}
136    }
137    .testimonial {
138      background: #f1f6fe;
139      border-radius: 1.5rem;
140      padding: 1.8rem;
141      border: 1px solid #dbeafe;
142    }
143    .testimonial p {
144      font-style: italic;
145      font-size: 1.1rem;
146    }
147    .testimonial-footer {
148      margin-top: 1rem;
149      font-weight: 600;
150      color: #0f172a;
151    }
152    .blog-link, .achieve-item {
153      background: #f8fafc;
154      padding: 1rem 1.5rem;
155      border-radius: 2rem;
156      border: 1px solid #e0e7ff;
157      display: inline-block;
158      margin-right: 1rem;
159      margin-bottom: 1rem;
160      transition: 0.1s;
161      text-decoration: none;
162      color: #1e293b;
163    }
164    .blog-link i, .achieve-item i {
165      margin-right: 8px;
166      color: #2563eb;
167    }
168    .blog-link:hover {
169      background: #2563eb;
```

```
170      color: white;
171      border-color: #2563eb;
172    }
173    .blog-link:hover i {
174      color: white;
175    }
176    .contact-bar {
177      background: #0f172a;
178      color: white;
179      border-radius: 3rem;
180      padding: 2rem 2rem;
181      display: flex;
182      flex-wrap: wrap;
183      align-items: center;
184      justify-content: space-between;
185      gap: 1.5rem;
186    }
187    .contact-info a {
188      color: white;
189      text-decoration: none;
190      border-bottom: 1px solid #5588ff;
191      margin-left: 0.5rem;
192    }
193    .contact-info i {
194      font-size: 1.4rem;
195      margin-right: 0.5rem;
196      vertical-align: middle;
197    }
198    .linkedin-btn {
199      background: #2563eb;
200      padding: 0.8rem 2rem;
201      border-radius: 3rem;
202      font-size: 1.2rem;
```

```

202     font-weight: 600;
203     display: inline-flex;
204     align-items: center;
205     gap: 0.5rem;
206     color: white;
207     text-decoration: none;
208   }
209   .linkedin-btn:hover {
210     background: #1d4ed8;
211   }
212   .light-meta {
213     color: #64748b;
214     font-size: 0.9rem;
215   }
216   .achievement-grid {
217     display: flex;
218     flex-wrap: wrap;
219     gap: 0.8rem;
220   }
221   footer {
222     text-align: center;
223     margin-top: 2rem;
224     color: #64748b;
225   }
226   /* university software badges */
227   .sw-badge {
228     background: #dbeafe;
229     color: #1e3a8a;
230   }
231 </style>
232 </head>
233 <body>

```

```

234   <div class="container">
235     <!-- INTRODUCTION -->
236     <section class="section">
237       <div class="intro">
238         <div class="flag">
239           <div class="Intro-text">
240             <hi>Muhammad Khan</hi>
241             <div class="tagline">CSAIT student - 4th semester at UET Peshawar (Jalozi)</div>
242             <p>I'm passionate about web development and low-level programming. My ambition is to become a full-stack developer and contribute to impactful open-source projects. Currently learning MERN stack while strengthening my C++ and Python skills.</p>
243           </div>
244           <div class="intro-avatar">
245             
246           </div>
247         </div>
248       </section>
249
250     <!-- BACKGROUND : SSC, HSSC, University + CGPA (years removed) -->
251     <section class="section">
252       <h2>■ education background</h2>
253       <div class="card">
254         <div class="flex-row"><i class="fas fa-school icon"></i><h3>matriculation & intermediate</h3></div>
255         <pxstrong>SSC (Science)</strong> – Peshawar Model School <span class="light-meta">Grade: A</span></px>
256         <pxstrong>HSSC (Pre-Engineering)</strong> – Ghazi Model School Pabbi <span class="light-meta">Grade: A</span></px>
257       </div>
258       <div class="card">
259         <div class="flex-row"><i class="fas fa-university icon"></i><h3>university (current)</h3></div>
260         <pxstrong>B.Sc. CS & IT (4th semester)</strong> – UET Peshawar, Jalozi Campus<br>
261         <span class="light-meta">CGPA: 3.80 / 4.00</span></px>
262         <px><i class="fas fa-code icon"></i> Relevant coursework: Data structures, OOP, Database, COAL.</px>
263       </div>
264     </div>
265   </section>
266
267   <!-- SOFTWARE LEARNED / SKILLS (university & self) -->
268   <section class="section">
269     <h2>■ technical skills & software</h2>
270     <div class="card">
271       <h3><i class="fas fa-terminal icon"></i> worked with at university</h3>
272       <ul>
273         <li><span class="badge sw-badge"><i class="fas fa-database icon"></i> MySQL</span></li>
274         <li><span class="badge sw-badge"><i class="fas fa-code icon"></i> C</span></li>
275         <li><span class="badge sw-badge"><i class="fas fa-code icon"></i> C++</span></li>
276         <li><span class="badge sw-badge"><i class="fab fa-python icon"></i> Python</span></li>
277       </ul>
278     </div>
279   </section>

```

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278         <span class="badge sw-badge"><i class="fas fa-microchip"></i> Emu8086</span>
279     </p>
280     <p class="light-meta" style="margin-top:0.8rem;">+ additionally learning: HTML5, CSS, JavaScript, React (self-study web development).</p>
281   </div>
282   <div style="margin-top:1.5rem;" class="grid-2">
283     <div class="card">
284       <h3><i class="fas fa-laptop"></i> programming languages</h3>
285       <span class="badge">C</span><span class="badge">Python (basic)</span><span class="badge">Assembly (emu8086)</span><span class="badge">SQL</span>
286     </div>
287     <div class="card">
288       <h3><i class="fas fa-tools"></i> developer tools</h3>
289       <span class="badge">VS Code</span><span class="badge">MySQL Workbench</span><span class="badge">Emu8086</span><span class="badge">Git/GitHub</span><span class="badge">Linux (Ubuntu)</span>
290     </div>
291   </div>
292 </section>
293
294 <!-- PROJECTS (university & personal) -->
295 <section class="section">
296   <h2>■ projects</h2>
297   <div class="grid-3">
298     <div class="card">
299       <h3><i class="fas fa-database"></i> library management system</h3>
300       <p class="light-meta" role="text">role: database designer & C++ coder.</p>
301       <p>Console-based app using C++ (OOP) and MySQL for book records. Implemented issue/return and fine calculation.</p>
302     </div>
303     <div class="tech-stack">
304       <span class="badge">C++</span><span class="badge">MySQL</span><span class="badge">VS Code</span>
305     </div>
306     <px><i class="fas fa-check-circle" style="color:#2563eb;"></i> outcome: term project, got A grade.</px>
307   </div>
308   <div class="card">
309     <h3><i class="fas fa-user-tie"></i> student result manager</h3>
310     <p class="light-meta" role="text">role: solo developer.</p>
311     <p>Python script that reads CSV, computes grades, and generates result sheets. Used for course assignment.</p>
312   </div>
313   <div class="tech-stack">
314     <span class="badge">Python</span><span class="badge">pandas</span><span class="badge">CSV</span>
315   </div>
316   <px><i class="fas fa-check-circle" style="color:#2563eb;"></i> outcome: practiced file I/O and data handling.</px>
317   </div>
318   <div class="card">
319     <h3><i class="fas fa-calculator"></i> 8086 calculator</h3>
320     <p class="light-meta" role="text">role: assembly programmer</p>
321     <p>Simple 4-function integer calculator using Emu8086. Handles user input and displays result on screen.</p>
322   </div>
323   <div class="tech-stack">
324     <span class="badge">Assembly</span><span class="badge">Emu8086</span>
325   </div>
326
327   <div style="margin-top:1.5rem;" class="grid-2">
328     <div class="card">
329       <h3><i class="fas fa-globe"></i> currently building a personal portfolio site (the one you're viewing!) and a small to-do app with HTML/CSS/JS. planning to add React soon.</h3>
330   </div>
331 </section>
332
333 <!-- EXPERIENCE (academic projects / volunteer) -->
334 <section class="section">
335   <h2>■ experience & contributions</h2>
336   <div class="card" style="margin-bottom:1rem;">
337     <div class="flex-row"><i class="fas fa-chalkboard-teacher icon"></i><h3>teaching assistant (volunteer) - UET Jalozai</h3></div>
338     <ul style="margin-left:1rem; list-style-type: none;">
339       <li>taught first-year students with C programming and problem solving.</li>
340       <li>Conducted weekly coding sessions and explain basic algorithms.</li>
341     </ul>
342   </div>
343   <div class="card">
344     <h3><i class="fas fa-code-branch icon"></i> open-startup contributor (self)</h3></div>
345     <ul style="margin-left:1rem; list-style-type: none;">
346       <li>Contributed to a friend's GitHub repo (student management system) - bug fixes and documentation.</li>
347       <li>Learning collaborative workflow via pull requests and issues.</li>
348     </ul>
349   </div>
350 </section>
351
352 <!-- ACHIEVEMENTS (academic / honor) - years removed -->
353 <section class="section">
354   <h2>■ achievements</h2>
355   <div class="achievement-grid">
356     <span class="blog-link achieve-item"><i class="fas fa-star"></i> SSC A grade (Peshawar Model School)</span>
357     <span class="blog-link achieve-item"><i class="fas fa-star"></i> HSSC A grade (Ghazi Model)</span>
358     <span class="blog-link achieve-item"><i class="fas fa-trophy"></i> 3.80 CGPA - 4th semester</span>
359     <span class="blog-link achieve-item"><i class="fas fa-award"></i> perfect attendance certificate (UET)</span>
360   </div>
361 </section>
362
363 <!-- BLOG / ARTICLES (communication) -->
364 <section class="section">
365   <h2>■ blog & writing</h2>
366   <div style="display:flex; flex-wrap:wrap; gap:1rem;">
367     <a href="#" class="blog-link"><i class="fab fa-dev"></i> "My first week with 8086 assembly" (dev.to clone)</a>
368     <a href="#" class="blog-link"><i class="fas fa-pen"></i> "Why I chose UET Peshawar for CS" (personal blog)</a>
369     <a href="#" class="blog-link"><i class="fas fa-note-sticky"></i> "Study tips for programming labs" (LinkedIn article)</a>
370   </div>
371   <px><i class="fas fa-lightbulb" style="margin-top:1rem;"></i> I'm building a habit of documenting my learning journey.</px>
372 </section>
373
374 <!-- TESTIMONIALS (teachers/peers) -->
375 <section class="section">
376   <h2>■ testimonials</h2>
377   <div class="grid-2">
378     <div class="testimonial">
379       <p>Muhammad is a dedicated and curious student. He asks insightful questions in programming labs and helps classmates understand pointers and memory allocation.</p>
380     </div>
381   </div>
382 </section>

```

```

377         </div>
378         <div class="testimonial">
379             <p>I worked with Muhammad on a database project. He's organized, writes clean code, and always meets deadlines. A reliable teammate.</p>
380         </div>
381     </div>
382 </section>
383
384     <!-- CONTACT with exact email, LinkedIn, GitHub and location Banda Nabi, Pabbi, Nowshera -->
385     <section class="section">
386         <h2>Contact & profiles:</h2>
387         <div class="contact-pan">
388             <div class="contact-info">
389                 <i class="fas fa-envelope"></i>
390                 <a href="mailto:mohammadkhan321banda@gmail.com">mohammadkhan321banda@gmail.com</a><br>
391                 <i class="fab fa-github"></i>
392                 <a href="https://github.com/Muhammad-khan-dev" target="_blank">github.com/Muhammad-khan-dev</a><br>
393                 <i class="fab fa-linkedin"></i>
394                 <a href="https://www.linkedin.com/in/mohammadkhan-mk/?lipi=urn:li:page:d_flagship3_profile_view_base_contact_details:PZcCyxBFsROEH1gdPO4Nlw==="" target="_blank">linkedin.com/in/mohammadkhan-mk</a>
395             </div>
396             <a href="https://www.linkedin.com/in/mohammadkhan-mk/" target="_blank" class="linkedin-btn"><i class="fab fa-linkedin"></i> LinkedIn profile</a>
397         </div>
398         <p style="margin-top:1rem;"><i class="fas fa-map-pin"></i> Banda Nabi, Pabbi, Nowshera · available for remote collaboration.</p>
399     </section>
400
401     <hr>
402     <footer>
403         <span>© 2025 Muhammad Khan – built as personal portfolio (HTML/CSS) · 4th semester CS&IT</span>
404     </footer>
405 </div>
406 <!-- end container -->
407 </body>
408 </html>

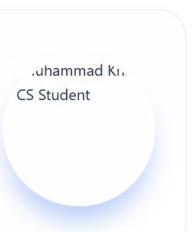
```

# Muhammad Khan

CS&IT student · 4th semester at UET Peshawar (Jalozai)

I'm passionate about web development and low-level programming. My ambition is to become a full-stack developer and contribute to impactful open-source projects. Currently learning MERN stack while strengthening my C++ and Python skills.

.muhammad khan,  
CS Student



## education background

### matriculation & intermediate

**SSC (Science)** — Peshawar Model School

Grade: A

**HSSC (Pre-Engineering)** — Ghazi Model School Pabbi

Grade: A

### university (current)

**B.Sc. CS & IT (4th semester)** — UET Peshawar, Jalozai Campus

CGPA: 3.00 / 4.00

</> Relevant coursework: Data structures, OOP, Database, COAL.

## technical skills & software

### >\_ worked with at university

 MySQL    C    C++    Python    Emu8086

+ additionally learning: HTML5, CSS, JavaScript, React (self-study web development).

### programming languages

 C++    C    Python (basic)    Assembly (emu8086)    SQL

### developer tools

 VS Code    MySQL Workbench    Emu8086    Git/GitHub

 Linux (Ubuntu)

## 📁 projects

### 💻 library management system

role: database designer & C++ coder  
Console-based app using C++ (OOP) and MySQL for book records. Implemented issue/return and fine calculation.

C++ MySQL VS Code

✓ outcome: term project, got A grade.

### 💻 student result manager

role: solo developer  
Python script that reads CSV, computes grades, and generates result sheets. Used for course assignment.

Python pandas CSV

✓ outcome: practiced file I/O and data handling.

### 💻 8086 calculator

role: assembly programmer  
Simple 4-function integer calculator using Emu8086. Handles user input and displays result on screen.

Assembly Emu8086

✓ outcome: understood registers & interrupts.

🌐 **web development journey:** currently building a personal portfolio site (the one you're viewing!) and a small to-do app with HTML/CSS/JS. planning to add React soon.

## 💼 experience & contributions

### 💻 teaching assistant (volunteer) · UET Jalozi

- Assist first-year students with C programming and problem solving.
- Conduct weekly debug sessions and explain basic algorithms.

### 💻 open-startup contributor (self)

- Contributed to a friend's GitHub repo (student management system) — bug fixes and documentation.
- Learning collaborative workflow via pull requests and issues.

## achievements

 SSC A grade (Peshawar Model School)

 HSSC A grade (Ghazi Model)

 3.00 CGPA · 4th semester

 perfect attendance certificate (UET)

## blog & writing

 "My first week with 8086 assembly" (dev.to clone)

 "Why I chose UET Peshawar for CS" (personal blog)

 "Study tips for programming labs" (LinkedIn article)

 I'm building a habit of documenting my learning journey.

## testimonials

*"Muhammad is a dedicated and curious student. He asks insightful questions in programming labs and helps classmates understand pointers and memory allocation."*

— Sir Imran Khan, CS instructor, UET Jalozi

*"I worked with Muhammad on a database project. He's organized, writes clean code, and always meets deadlines. A reliable teammate."*

— Hira Ali, classmate & project partner

## contact & profiles

 muhammadkhan321banda@gmail.com

 github.com/Muhammad-khan-dev

 linkedin.com/in/muhammadkhan-mk

 LinkedIn profile

 Banda Nabi, Pabbi, Nowshera · available for remote collaboration.

## Task 2

### TO-DO-LIST

- Build a simple to-do list application that allows users to add, edit, and delete tasks.
- You can use HTML, CSS, and JavaScript for the front-end and store the

tasks in local storage or a simple backend server using technologies like Node.js or Flask

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Muhammad Khan · to-do list (local storage)</title>
7      <!-- Font Awesome 6 (free) for icons -->
8      <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0-beta3/css/all.min.css">
9      <style>
10         * {
11             margin: 0;
12             padding: 0;
13             box-sizing: border-box;
14             font-family: 'Inter', system-ui, -apple-system, BlinkMacSystemFont, 'Segoe UI', Roboto, sans-serif;
15         }
16         body {
17             background: linear-gradient(145deg, #e9f0fc 0%, #f1f7ff 100%);
18             min-height: 100vh;
19             display: flex;
20             justify-content: center;
21             align-items: center;
22             padding: 1.5rem;
23         }
24         .todo-wrapper {
25             max-width: 750px;
26             width: 100%;
27             background: rgba(255,255,255,0.75);
28             backdrop-filter: blur(8px);
29             border-radius: 2.5rem;
30             box-shadow: 0 25px 45px -12px rgba(0,40,100,0.25);
31             border: 1px solid rgba(255,255,255,0.5);
32             overflow: hidden;
33             padding: 2rem 2rem 2.5rem;
34         }
35         /* header */
36         .todo-header {
37             display: flex;
38             align-items: center;
39             gap: 0.75rem;
40             margin-bottom: 2rem;
41         }
42         .todo-header i {
43             font-size: 2rem;
44         }
45         .todo-header input {
46             width: 100px;
47             height: 1.2em;
48             border: 1px solid #ccc;
49             border-radius: 0.5rem;
50             padding: 0 0.5rem;
51             font-size: 0.875em;
52             font-weight: bold;
53             outline: none;
54         }
55         .todo-list {
56             list-style-type: none;
57             padding-left: 0;
58         }
59         .todo-item {
60             display: flex;
61             align-items: center;
62             gap: 1rem;
63             margin-bottom: 1rem;
64         }
65         .todo-item i {
66             font-size: 1.2em;
67             cursor: pointer;
68         }
69         .todo-item i:hover {
70             color: #ccc;
71         }
72         .todo-item .text {
73             flex-grow: 1;
74             font-size: 0.875em;
75             font-weight: bold;
76             color: #333;
77         }
78         .todo-item .text::before {
79             content: '';
80             width: 0;
81             height: 0;
82             border-top: 10px solid transparent;
83             border-bottom: 10px solid transparent;
84             border-left: 20px solid #ccc;
85             margin-right: 10px;
86         }
87         .todo-item .text::after {
88             content: '';
89             width: 0;
90             height: 0;
91             border-top: 10px solid transparent;
92             border-bottom: 10px solid transparent;
93             border-left: 20px solid #ccc;
94             margin-left: 10px;
95         }
96         .todo-item .text::before, .todo-item .text::after {
97             border-left: 20px solid #ccc;
98         }
99         .todo-item .text::before, .todo-item .text::after {
100            border-left: 20px solid #ccc;
101        }
```

```
43         font-size: 2.2rem;
44         color: #2563eb;
45         background: white;
46         padding: 0.6rem;
47         border-radius: 1.5rem;
48         box-shadow: 0 8px 12px -6px #b0c9ff;
49     }
50     .todo-header h1 {
51         font-size: 2.2rem;
52         font-weight: 650;
53         background: linear-gradient(130deg, #1e293b, #2563eb);
54         -webkit-background-clip: text;
55         -webkit-text-fill-color: transparent;
56         background-clip: text;
57         letter-spacing: -0.02em;
58     }
59     .greeting {
60         margin-bottom: 1.8rem;
61         font-size: 1.2rem;
62         color: #0f172a;
63         display: flex;
64         align-items: center;
65         gap: 0.5rem;
66         background: #dbeafe;
67         padding: 0.8rem 1.5rem;
68         border-radius: 3rem;
69         width: fit-content;
70     }
71     .greeting i {
72         color: #2563eb;
73     }
74     /* add task row */
75     .add-task {
76         display: flex;
77         flex-wrap: wrap;
78         gap: 0.8rem;
79     }
80     .add-task input {
81         flex: 1 1 250px;
82         padding: 1rem 1.5rem;
83         border: 2px solid white;
84         border-radius: 3rem;
85         font-size: 1.1rem;
86         background: rgba(255,255,255,0.8);
87         backdrop-filter: blur(4px);
88         box-shadow: 0 2px 6px rgba(0,0,0,0.03);
89         outline: none;
90         transition: 0.15s;
91     }
92     .add-task input:focus {
93         border-color: #2563eb;
94         background: white;
95         box-shadow: 0 8px 18px -10px #2563eb;
96     }
97     .add-task button {
98         background: #2563eb;
99         border: none;
100        color: white;
101        padding: 1rem 2.2rem;
102        border-radius: 3rem;
103        font-size: 1.1rem;
104        font-weight: 600;
105        display: flex;
106        align-items: center;
107        gap: 0.5rem;
108        cursor: pointer;
109        transition: 0.15s;
110    }
```

```
75         gap: 0.8rem;
76         margin-bottom: 2.5rem;
77     }
78     .add-task input {
79         flex: 1 1 250px;
80         padding: 1rem 1.5rem;
81         border: 2px solid white;
82         border-radius: 3rem;
83         font-size: 1.1rem;
84         background: rgba(255,255,255,0.8);
85         backdrop-filter: blur(4px);
86         box-shadow: 0 2px 6px rgba(0,0,0,0.03);
87         outline: none;
88         transition: 0.15s;
89     }
90     .add-task input:focus {
91         border-color: #2563eb;
92         background: white;
93         box-shadow: 0 8px 18px -10px #2563eb;
94     }
95     .add-task button {
96         background: #2563eb;
97         border: none;
98         color: white;
99         padding: 1rem 2.2rem;
100        border-radius: 3rem;
101        font-size: 1.1rem;
102        font-weight: 600;
103        display: flex;
104        align-items: center;
105        gap: 0.5rem;
106        cursor: pointer;
107        transition: 0.15s;
108    }
```

```
    transition: 0.15s;
111     border: 1px solid rgba(255,255,255,0.3);
112     box-shadow: 0 12px 18px -12px #1e4fbb;
113 }
114 .add-task button:hover {
115     background: #1d4ed8;
116     transform: scale(1.02);
117 }
118 /* stats */
119 .stats {
120     display: flex;
121     justify-content: space-between;
122     margin-bottom: 1.2rem;
123     font-weight: 500;
124     color: #334155;
125     background: rgba(255,255,255,0.6);
126     padding: 0.8rem 1.5rem;
127     border-radius: 3rem;
128     backdrop-filter: blur(2px);
129 }
130 .stats span {
131     background: #fffffb3;
132     padding: 0.2rem 1rem;
133     border-radius: 30px;
134     color: #0f172a;
135 }
136 /* task list */
137 .task-list {
138     list-style: none;
139     display: flex;
140     flex-direction: column;
141     gap: 0.9rem;
142     margin-top: 1rem;
```

```
max-height: 400px;
143 overflow-y: auto;
144 padding-right: 0.3rem;
145 }
146 .task-list li {
147     background: white;
148     padding: 0.8rem 1.2rem 0.8rem 1.8rem;
149     border-radius: 3rem;
150     display: flex;
151     align-items: center;
152     justify-content: space-between;
153     gap: 1rem;
154     box-shadow: 0 4px 8px rgba(0,0,0,0.02);
155     border: 1px solid #e2efff;
156     transition: 0.15s;
157 }
158 .task-list li:hover {
159     border-color: #a7c8ff;
160     box-shadow: 0 8px 16px -10px #2563eb;
161 }
162 .task-content {
163     display: flex;
164     align-items: center;
165     gap: 1rem;
166     flex: 1;
167 }
168 .task-check {
169     width: 1.4rem;
170     height: 1.4rem;
171     accent-color: #2563eb;
172     cursor: pointer;
173 }
174 }
```

```
    }
175     .task-text {
176         font-size: 1.2rem;
177         font-weight: 500;
178         color: #0f172a;
179         word-break: break-word;
180         padding-right: 0.5rem;
181     }
182     .completed-task .task-text {
183         text-decoration: line-through;
184         color: #64748b;
185     }
186     .task-actions {
187         display: flex;
188         gap: 0.4rem;
189         align-items: center;
190     }
191     .task-actions button {
192         background: none;
193         border: none;
194         font-size: 1.4rem;
195         cursor: pointer;
196         width: 2.5rem;
197         height: 2.5rem;
198         border-radius: 50%;
199         display: flex;
200         align-items: center;
201         justify-content: center;
202         transition: 0.1s;
203         color: #4b5563;
204     }
205     .edit-btn:hover {
206         background: #e6f0ff;
207         color: #1e4a8b;
208     }
209     .delete-btn:hover {
210         background: #fee2e2;
211         color: #b91c1c;
212     }
213     .save-btn {
214         background: #22c55e !important;
215         color: white !important;
216     }
217     .edit-input {
218         font-size: 1.2rem;
219         padding: 0.3rem 1rem;
220         border-radius: 3rem;
221         border: 2px solid #2563eb;
222         outline: none;
223         width: 100%;
224         max-width: 350px;
225     }
226     .empty-message {
227         text-align: center;
228         color: #6b7a93;
229         padding: 2rem;
230         font-size: 1.2rem;
231         background: #f0f7ff;
232         border-radius: 4rem;
233         margin-top: 1rem;
234     }
235     footer {
236         margin-top: 2rem;
237         text-align: center;
238         color: #4b5563;
239         font-size: 0.95rem;
```

```

239         font-size: 0.95rem;
240     }
241     footer i {
242         color: #2563eb;
243     }
244     /* scroll */
245     .task-list::-webkit-scrollbar {
246         width: 6px;
247     }
248     .task-list::-webkit-scrollbar-track {
249         background: #eef2f6;
250         border-radius: 10px;
251     }
252     .task-list::-webkit-scrollbar-thumb {
253         background: #b3c9f0;
254         border-radius: 10px;
255     }
256     </style>
257 </head>
258 <body>
259
260 <div class="todo-wrapper">
261     <!-- header with name -->
262     <div class="todo-header">
263         <i class="fas fa-check-double"></i>
264         <h1>Muhammad's tasks</h1>
265     </div>
266     <!-- personal greeting -->
267     <div class="greeting">
268         <i class="fas fa-map-pin"></i> Banda Nabi, Pabbi · 4th semester UET
269     </div>
270     <!-- ADD TASK SECTION -->
271
272     <div class="add-task">
273         <input type="text" id="taskInput" placeholder="e.g., finish 8086 lab report ..." autocomplete="off">
274         <button id="addTaskBtn"><i class="fas fa-plus-circle"></i> Add task</button>
275     </div>
276
277     <!-- stats counter -->
278     <div class="stats">
279         <span><i class="fas fa-list"></i> total: <span id="totalTasks">0</span></span>
280         <span><i class="fas fa-check-circle" style="color:#2563eb;"></i> done: <span id="completedTasks">0</span></span>
281     </div>
282
283     <!-- TASK LIST -->
284     <ul class="task-list" id="taskListContainer">
285         <!-- dynamic items will be injected by js -->
286         <li class="empty-message">✿ no tasks yet - add one above ✿</li>
287     </ul>
288
289     <footer>
290         <i class="fas fa-database"></i> saved in local storage · edit · delete · check
291     </footer>
292 </div>
293
294 <script>
295     (function() {
296         // ----- data -----
297         let tasks = [];
298
299         // DOM elements
300         const taskInput = document.getElementById('taskInput');
301         const addBtn = document.getElementById('addTaskBtn');
302         const taskListEl = document.getElementById('taskListContainer');
303         const totalSpan = document.getElementById('totalTasks');
304         const completedSpan = document.getElementById('completedTasks');

```

```

305     // Load from localStorage
306     function loadTasks() {
307         const stored = localStorage.getItem('muhammad_todo');
308         if (stored) {
309             try {
310                 tasks = JSON.parse(stored);
311             } catch (e) {
312                 tasks = [];
313             }
314         } else {
315             // start with two example tasks (optional)
316             tasks = [
317                 { id: Date.now() + 1, text: 'review C++ pointers', completed: false },
318                 { id: Date.now() + 2, text: 'push code to GitHub', completed: true },
319             ];
320         }
321     }
322
323     // Save to localStorage
324     function saveTasks() {
325         localStorage.setItem('muhammad_todo', JSON.stringify(tasks));
326     }
327
328     // render the whole list
329     function render() {
330         if (!taskListEl) return;
331
332         // update counters first
333         totalSpan.innerText = tasks.length;
334         const doneCount = tasks.filter(t => t.completed).length;
335         completedSpan.innerText = doneCount;
336     }
337
338     if (tasks.length === 0) {
339         taskListEl.innerHTML = `- ⚠️ your to-do list is empty – add a task
`;
340         return;
341     }
342
343     let html = '';
344     tasks.forEach(task => {
345         const taskClass = task.completed ? 'completed-task' : '';
346         const checkedAttr = task.completed ? 'checked' : '';
347
348         html += `
349             <li data-id="${task.id}">
350                 <div class="task-content">
351                     <input type="checkbox" class="task-check" ${checkedAttr} onchange="toggleTask(${task.id})">
352                     <span class="task-text ${taskClass}">${escapeHTML(task.text)}</span>
353                 </div>
354                 <div class="task-actions">
355                     <button class="edit-btn" onclick="editTask(${task.id})" title="edit"><i class="fas fa-pen"></i></button>
356                     <button class="delete-btn" onclick="deleteTask(${task.id})" title="delete"><i class="fas fa-trash"></i></button>
357                 </div>
358             </li>
359         `;
360     });
361     taskListEl.innerHTML = html;
362 }
363
364 // small escape to prevent XSS
365 function escapeHTML(str) {
366     return str.replace(/(&gt;|&lt;)/g, function(m) {
367         if (m === '&gt;') return '&gt;';
368         if (m === '&lt;') return '&lt;';
369     });
370 }

```

```

568         if (m === '<') return `&lt;`;
569         if (m === '>') return `&gt;`;
570         if (m === '') return `&quot;`;
571         return m;
572     });
573 }
574
575 // ----- CORE FUNCTIONS (exposed globally for onclick) -----
576 window.toggleTask = function(id) {
577     const task = tasks.find(t => t.id === id);
578     if (task) {
579         task.completed = !task.completed;
580         saveTasks();
581         render();
582     }
583 };
584
585 window.deleteTask = function(id) {
586     tasks = tasks.filter(t => t.id !== id);
587     saveTasks();
588     render();
589 };
590
591 window.editTask = function(id) {
592     const task = tasks.find(t => t.id === id);
593     if (!task) return;
594
595     // find the li element
596     const li = document.querySelector(`li[data-id="${id}"]`);
597     if (!li) return;
598
599     const taskContentDiv = li.querySelector('.task-content');
600     const oldText = task.text;
601
602     const actionsDiv = li.querySelector('.task-actions');
603
604     // replace content with an input + save button
605     taskContentDiv.innerHTML =
606         ``;
607
608     // change action buttons: hide edit, show a save button (or repurpose)
609     const actionsDiv = li.querySelector('.task-actions');
610     actionsDiv.innerHTML =
611         `<i class="fas fa-check"></i></button>
612         <button class="delete-btn" onclick="deleteTask(${id})" title="delete"><i class="fas fa-trash"></i></button>
613     `;
614
615     window.saveEdit = function(id) {
616         const inputField = document.getElementById(`edit-input-${id}`);
617         if (!inputField) return;
618
619         const newText = inputField.value.trim();
620         if (newText === '') {
621             alert('task cannot be empty');
622             return;
623         }
624
625         const task = tasks.find(t => t.id === id);
626         if (task) {
627             task.text = newText;
628             saveTasks();
629             render();
630         }
631     };
632 }

```

```
433      // add new task
434      function addNewTask() {
435          const text = taskInput.value.trim();
436          if (text === '') {
437              alert('please write something before adding');
438              return;
439          }
440
441          const newTask = {
442              id: Date.now() + Math.floor(Math.random()*1000),
443              text,
444              completed: false
445          };
446          tasks.push(newTask);
447          saveTasks();
448          render();
449          taskInput.value = ''; // clear input
450          taskInput.focus();
451      }
452
453      // event listener for add button
454      addBtn.addEventListener('click', addNewTask);
455      taskInput.addEventListener('keypress', (e) => {
456          if (e.key === 'Enter') addNewTask();
457      });
458
459      // initialise
460      loadTasks();
461      render();
462
463      // If the empty message is not needed, we ensure consistency
464      // Also handle potential undefined calls
465      // Expose functions globally (already with window)

466      })();
467  </script>
468
469  <!-- ensure functions are globally reachable even after rerender (they are attached to window) -->
470  </body>
471  </html>
```



## Muhammad's tasks

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e.g., finish 8086 lab report ...

+ Add task

≡ total: 2

✓ done: 1

review C++ pointers



push code to GitHub



⌚ saved in local storage · edit · delete · check