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TP04 JavaScript

GitHub Repository URL: https://github.com/Dapravith/TP_Internet_Programming/tree/TP04

Ex1 : Tab

- Index.html

```
Exercise1 > index.html > html > body > section.section > div.title > p
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>Exercise 1 Design UI with 3 Tabs</title>
7
8   <!-- styles -->
9   <link rel="stylesheet" href="./style.css" />
10 </head>
11 <body>
12 <section class="section">
13 <div class="title">
14   <h2>About</h2>
15 <p>
16   Lorem ipsum dolor sit amet consectetur adipisicing elit. Earum,
17   aperiam!
18 </p>
19 </div>
20 <div class="about-center section-center">
21 <article class="about-img">
22   
23 </article>
24 <article class="about">
25   <!-- btn container -->
26 <div class="btn-container">
27   <button class="tab-btn active" data-id="history">history</button>
28   <button class="tab-btn" data-id="vision">vision</button>
29   <button class="tab-btn" data-id="goals">goals</button>
30 </div>
31 <div class="about-content">
32   <!-- single item -->
33 <div class="content active" id="history">
34   <h4>history</h4>
35 <p>
```

```

34     <h4>history</h4>
35     <p>
36         I'm baby wolf pickled schlitz try-hard normcore marfa man bun
37         mumblecore vice pop-up XOXO lomo kombucha glossier bicycle
38         rights. Umami kinfolk salvia jean shorts offal venmo. Knausgaard
39         tilde try-hard, woke fixie banjo man bun. Small batch tumeric
40         mustache tbh wayfarers 8-bit shaman chartreuse tacos. Viral
41         direct trade hoodie ugh chambray, craft beer pork belly flannel
42         tacos single-origin coffee art party migas plaid pop-up.
43     </p>
44 </div>
45 <!-- end of single item -->
46 <!-- single item -->
47 <div class="content" id="vision">
48     <h4>vision</h4>
49     <p>
50         Man bun PBR&B keytar copper mug prism, hell of helvetica. Synth
51         crucifix offal deep v hella biodiesel. Church-key listicle
52         polaroid put a bird on it chillwave palo santo enamel pin,
53         tattooed meggings franzen la croix cray. Retro yr aesthetic four
54         loko tbh helvetica air plant, neutra palo santo tofu mumblecore.
55         Hoodie bushwick pour-over jean shorts chartreuse shabby chic.
56         Roof party hammock master cleanse pop-up truffaut, bicycle
57         rights skateboard affogato readymade sustainable deep v
58         live-edge schlitz narwhal.
59     </p>
60     <p>
61         listitem<br>
62         listitem<br>
63         listitem<br>
64     </p>
65 </div>
66 <!-- end of single item -->
67 <!-- single item -->
68 <div class="content" id="goals">
69     <h4>goals</h4>
70     <h4>goals</h4>
71     <p>
72         Chambray authentic truffaut, kickstarter brunch taxidermy vape
73         heirloom four dollar toast raclette shoreditch church-key.
74         Poutine etsy tote bag, cred fingerstache leggings cornhole
75         everyday carry blog gastropub. Brunch biodiesel sartorial mlkshk
76         swag, mixtape hashtag marfa readymade direct trade man braid
77         cold-pressed roof party. Small batch adaptogen coloring book
78         heirloom. Letterpress food truck hammock literally hell of wolf
79         beard adaptogen everyday carry. Dreamcatcher pitchfork yuccie,
80         banh mi salvia venmo photo booth quinoa chicharrones.
81     </p>
82 </div>
83 <!-- end of single item -->
84 </div>
85 </article>
86 </div>
87 </section>
88 <!-- javascript -->
89 <script src="tab.js"></script>
90 </body>
91 </html>

```

```
Exercise1 > style.css > :root
1  @import url("https://fonts.googleapis.com/css?family=Open+Sans|Roboto:400,700&display=swap");
2
3  /* variable */
4  :root {
5      /* darkest grey - used for headings */
6      --clr-grey-1: hsl(209, 61%, 16%);
7      --clr-grey-2: hsl(211, 39%, 23%);
8      --clr-grey-3: hsl(209, 34%, 30%);
9      --clr-grey-4: hsl(209, 28%, 39%);
10     /* grey used for paragraphs */
11     --clr-grey-5: hsl(210, 22%, 49%);
12     --clr-grey-6: hsl(209, 23%, 60%);
13     --clr-grey-7: hsl(211, 27%, 70%);
14     --clr-grey-8: hsl(210, 31%, 80%);
15     --clr-grey-9: hsl(212, 33%, 89%);
16     --clr-grey-10: hsl(210, 36%, 96%);
17     --clr-white: #fff;
18     --clr-black: rgb(17, 15, 15);
19     --ff-primary: "Roboto", sans-serif;
20     --ff-secondary: "Open Sans", sans-serif;
21     --transition: all 0.5s linear;
22     --spacing: 0.25rem;
23     --radius: 0.5rem;
24     --max-width: 1160px;
25     --fixed-width: 950px;
26 }
27
28 /* Global styles */
29 *,::after,::before {
30     margin: 0;
31     padding: 0;
32     box-sizing: border-box;
33 }
34 body {
35     font-family: var(--ff-secondary);
36     font-size: large;
37     background: var(--clr-grey-10);
38     background: var(--clr-grey-10);
39     color: var(--clr-grey-1);
40     line-height: 1.5;
41     font-size: 0.875rem;
42 }
43 img:not(.logo) {
44     width: 100%;
45     margin: 15px 2px 0 5px 2rem;
46 }
47 img {
48     display: grid;
49     justify-content: center;
50 }
51
52 h1,h2,h3,h4 {
53     letter-spacing: var(--spacing);
54     text-transform: capitalize;
55     line-height: 1.25;
56     margin-bottom: 0.85rem;
57     font-family: var(--ff-primary);
58     font-size: 3rem 2rem 1.25rem 0.875rem;
59 }
60
61 p {
62     margin-bottom: 1.25rem;
63     color: var(--clr-grey-5);
64 }
65
```

```

66  /* global classes */
67
68  ∨ .btn {
69      text-transform: uppercase;
70      background: transparent;
71      color: var(--clr-black);
72      padding: 0.475rem 0.95rem;
73      letter-spacing: var(--spacing);
74      display: inline-block;
75      transition: var(--transition);
76      font-size: 0.875rem;
77      border: 2px solid var(--clr-black);
78      cursor: pointer;
79      box-shadow: 0 2px 4px □ rgba(23, 23, 23, 0.2);
80      border-radius: var(--radius);
81  }
82  ∨ .btn:hover {
83      color: var(--clr-white);
84      background: var(--clr-black);
85  }
86  /* section */
87  ∨ .section {
88      padding: 4rem 0;
89  }
90
91  ∨ .section-center {
92      width: 100vw;
93      height: auto;
94      margin: 0 auto;
95      max-width: 1170px;
96  }
97
98  ∨ main {
99      min-height: 100vh;
100     display: flex;
101     place-items: center;
102 }
103
104     /* about */
105     ∨ .title {
106         text-align: center;
107         margin-bottom: 4rem;
108     }
109     ∨ .title p {
110         width: 100%;
111         margin: 0 auto;
112     }
113
114     ∨ .about-img {
115         margin-bottom: 4rem;
116     }
117     ∨ .about-img img {
118         border-radius: var(--radius);
119         object-fit: cover;
120         height: 20rem;
121     }
122     ∨ .about {
123         background: var(--clr-white);
124         border-radius: var(--radius);
125         display: grid;
126         grid-template-rows: auto 1fr;
127     }
128     ∨ .btn-container {
129         border-top-left-radius: var(--radius);
130         border-top-right-radius: var(--radius);
131         display: grid;
132         grid-template-columns: 1fr 1fr 1fr;
133     }

```

```

134 .tab-btn:nth-child(1) {
135     border-top-left-radius: var(--radius);
136 }
137 .tab-btn:nth-child(3) {
138     border-top-right-radius: var(--radius);
139 }
140 .tab-btn {
141     padding: 1rem 0;
142     border: none;
143     text-transform: capitalize;
144     font-size: 1rem;
145     display: block;
146     background: var(--clr-grey-9);
147     cursor: pointer;
148     transition: var(--transition);
149     letter-spacing: var(--spacing);
150 }
151 .tab-btn:hover:not(.active) {
152     background: var(--clr-primary-10);
153     color: var(--clr-primary-5);
154 }
155 .about-content {
156     border-bottom-left-radius: var(--radius);
157     border-bottom-right-radius: var(--radius);
158     padding: 3rem 1.5rem;
159 }
160 /* hide content */
161 .content {
162     display: none;
163 }
164 .tab-btn.active {
165     background: var(--clr-white);
166 }
167 .content.active {
168     display: block;
169 }

```

- tab.js

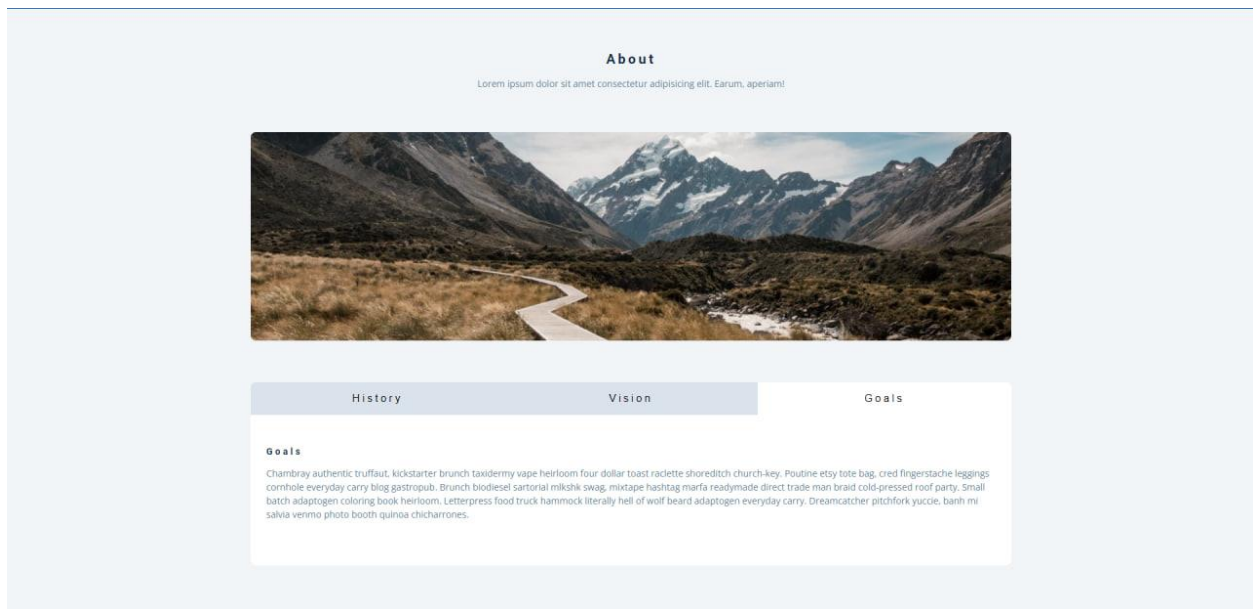
Exercise1 > JS tab.js

```

1  const btns = document.querySelectorAll(".tab-btn");
2  const about = document.querySelector(".about");
3  const articles = document.querySelectorAll(".content");
4
5  about.addEventListener("click", function (e) {
6      const id = e.target.dataset.id;
7      if (id) {
8          btns.forEach(function (btn) {
9              btn.classList.remove("active");
10             e.target.classList.add("active");
11         });
12         articles.forEach(function (article) {
13             article.classList.remove("active");
14         });
15     }
16     const element = document.getElementById(id);
17     element.classList.add("active");
18 });

```

- output for Ex1:



Ex2 : Responsive Menu

- index.html

```
Exercise2 > index.html > html > body > section.menu > div.btn-container
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>Exercise 2 Responsive Menu</title>
7    <!-- font-awesome -->
8    <link
9      rel="stylesheet"
10     href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.14.0/css/all.min.css"
11   />
12   <!-- styles -->
13   <link rel="stylesheet" href="styles.css" />
14 </head>
15 <body>
16   <section class="menu">
17     <!-- title -->
18     <div class="title">
19       <h2>our menu</h2>
20       <div class="underline"></div>
21     </div>
22     <!-- filter buttons -->
23     <div class="btn-container">
24       <button type="button" class="filter-btn" data-id="all">all</button>
25       <button type="button" class="filter-btn" data-id="breakfast">
26         breakfast
27       </button>
28       <button type="button" class="filter-btn" data-id="lunch">lunch</button>
29       <button type="button" class="filter-btn" data-id="shakes">
30         shakes
31       </button>
32     </div>
```

Exercise2 > index.html > html > body > section.menu > div.btn-container

```
31 |     </button>
32 | </div>
33 | <!-- menu items -->
34 | <div class="section-center">
35 |     <!-- single item -->
36 |     <article class="menu-item">
37 |         
38 |         <div class="item-info">
39 |             <header>
40 |                 <h4>buttermilk pancakes</h4>
41 |                 <h4 class="price">$15</h4>
42 |             </header>
43 |             <p class="item-text">
44 |                 Lorem ipsum dolor sit amet consectetur adipisicing elit.
45 |                 Repudiandae, sint quam. Et reprehenderit fugiat nesciunt inventore
46 |                 laboriosam excepturi! Quo, officia.
47 |             </p>
48 |         </div>
49 |     </article>
50 |     <!-- end of single item -->
51 |     <!-- single item -->
52 |     <article class="menu-item">
53 |         
54 |         <div class="item-info">
55 |             <header>
56 |                 <h4>buttermilk pancakes</h4>
57 |                 <h4 class="price">$15</h4>
58 |             </header>
59 |             <p class="item-text">
60 |                 Lorem ipsum dolor sit amet consectetur adipisicing elit.
61 |                 Repudiandae, sint quam. Et reprehenderit fugiat nesciunt inventore
62 |                 laboriosam excepturi! Quo, officia.
63 |             </p>
64 |         </div>
65 |     </article>
```

-styles.css

Exercise2 > styles.css > ...

```
1 | /* Font */
2 | @import url("https://fonts.googleapis.com/css?family=Open+Sans|Roboto:400,700&display=swap");
3 |
4 | /* Variables */
5 |
6 | :root {
7 |     /* darkest grey - used for headings */
8 |     --clr-grey-1: hsl(209, 47%, 15%);
9 |     --clr-grey-2: hsl(211, 39%, 23%);
10 |    --clr-grey-3: hsl(209, 34%, 30%);
11 |    --clr-grey-4: hsl(209, 28%, 39%);
12 |    /* grey used for paragraphs */
13 |    --clr-grey-5: hsl(210, 22%, 49%);
14 |    --clr-grey-6: hsl(209, 23%, 60%);
15 |    --clr-grey-7: hsl(211, 27%, 70%);
16 |    --clr-grey-8: hsl(210, 31%, 80%);
17 |    --clr-grey-9: hsl(212, 33%, 89%);
18 |    --clr-grey-10: hsl(210, 36%, 96%);
19 |    --clr-white: #fff;
20 |    --clr-gray: rgb(224, 205, 205);
21 |    --clr-gold: #c59d5f;
22 |    --clr-black: #222;
23 |    --ff-primary: "Roboto", sans-serif;
24 |    --ff-secondary: "Open Sans", sans-serif;
25 |    --transition: all 0.8s linear;
26 |    --spacing: 0.25rem;
27 |    --radius: 0.5rem;
28 |    --light-shadow: 0 5px 17px rgba(0, 0, 0, 0.1);
29 |    --dark-shadow: 0 5px 17px rgba(0, 0, 0, 0.2);
30 |    --max-width: 1170px;
31 |    --fixed-width: 620px;
32 | }
```



```

33
34  /* Global Styles */
35
36  *,::after,::before {
37      margin: 0;
38      padding: 0;
39      box-sizing: border-box;
40  }
41
42  body {
43      font-family: var(--ff-secondary);
44      background: var(--clr-grey-25);
45      color: var(--clr-grey-5);
46      line-height: 1.7;
47      font-size: 0.875rem;
48  }
49
50  ul,a {
51      list-style-type: none;
52      text-decoration: none;
53  }
54
55  img:not(.logo) {
56      width: 100%;
57  }
58  img {
59      display: block;
60  }
61
62  h1,h2,h3,h4 {
63      letter-spacing: var(--spacing);
64      text-transform: capitalize;
65      line-height: 1.25;
66      margin-bottom: 0.75rem;
67      font-family: var(--ff-primary);
68      font-size: 3rem, 2rem, 1.25rem 0.875rem;
69  }
70
71  p {
72      margin-bottom: 1.25rem;
73      color: var(--clr-grey-5);
74  }
75  @media screen and (min-width: 800px) {
76      h1,h2,h3,h4 {
77          font-size: 4rem, 2.5rem, 1.75rem, 1rem;
78      }
79
80      body {
81          font-size: 1rem;
82      }
83      h1,h2,h3,h4 {
84          line-height: 1;
85      }
86  }

```



```
87  /* global classes */
88
89  .btn {
90    text-transform: uppercase;
91    background: transparent;
92    color: var(--clr-black);
93    padding: 0.375rem 0.75rem;
94    letter-spacing: var(--spacing);
95    display: inline-block;
96    transition: var(--transition);
97    font-size: 0.875rem;
98    border: 2px solid var(--clr-black);
99    cursor: pointer;
100   box-shadow: 0 1px 3px 0 rgba(7, 7, 7, 0.2);
101   border-radius: var(--radius);
102 }
103 .btn:hover {
104   color: var(--clr-white);
105   background: var(--clr-black);
106 }
107 /* section */
108 .section {
109   padding: 5rem 0;
110 }
111
112 main {
113   min-height: 100vh;
114   display: grid;
115   place-items: center;
116 }
117
118 /* Menu */
119
120 .menu {
121   padding: 5rem 0;
122 }
123 .title {
124   text-align: center;
125   margin-bottom: 2rem;
126 }
127 .underline {
128   width: 5rem;
129   height: 0.25rem;
130   background: var(--clr-gold);
131   margin-left: auto;
132   margin-right: auto;
133 }
134 .btn-container {
135   margin-bottom: 4rem;
136   display: flex;
137   justify-content: center;
138 }
```

```
139  .filter-btn {
140      background: transparent;
141      border-color: var(--clr-gold);
142      font-size: 1rem;
143      text-transform: capitalize;
144      margin: 0 0.5rem;
145      letter-spacing: 1px;
146      border-radius: var(--radius);
147      padding: 0.375rem 0.75rem;
148      color: var(--clr-gold);
149      cursor: pointer;
150      transition: var(--transition);
151  }
152  .filter-btn:hover {
153      background: var(--clr-gold);
154      color: var(--clr-white);
155  }
156  .section-center {
157      width: 90vw;
158      margin: 0 auto;
159      max-width: 1170px;
160      display: grid;
161      gap: 3rem 2rem;
162      justify-items: center;
163  }
164  .menu-item {
165      display: grid;
166      gap: 1rem 2rem;
167      max-width: 25rem;
168  }
169  .photo {
170      object-fit: cover;
171      height: 200px;
172      border: 0.25rem solid var(--clr-gold);
173      border-radius: var(--radius);
174  }
175  .item-info header {
176      display: flex;
177      justify-content: space-between;
178      border-bottom: 0.5px dotted var(--clr-grey-5);
179  }
180  .item-info h4 {
181      margin-bottom: 0.5rem;
182  }
183  .price {
184      color: var(--clr-gold);
185  }
186  .item-text {
187      margin-bottom: 0;
188      padding-top: 1rem;
189  }
```

```

190
191  ∨ @media screen and (min-width: 768px) {
192  ∨    .menu-item {
193      grid-template-columns: 225px 1fr;
194      gap: 0 1.25rem;
195      max-width: 40rem;
196    }
197  ∨    .photo {
198      height: 185px;
199    }
200  }
201  ∨ @media screen and (min-width: 1200px) {
202  ∨    .section-center {
203      width: 97vw;
204      grid-template-columns: 1fr 1fr;
205    }
206  ∨    .photo {
207      height: 180px;
208    }
209  }
210

```

- menu.js

```

Exercise2 > menu.js > ...
1
2  const menu = [
3  {
4    id: 1,
5    title: "buttermilk pancakes",
6    category: "breakfast",
7    price: 15.99,
8    img: "/images/item-1.jpeg",
9    desc: `I'm baby woke mlkshk wolf bitters live-edge blue bottle, hammock freegan copper mug whatever cold-pressed `,
10  },
11  {
12    id: 2,
13    title: "diner double",
14    category: "lunch",
15    price: 13.99,
16    img: "/images/item-2.jpeg",
17    desc: `vaporware iPhone mumblecore selvage raw denim slow-carb leggings gochujang helvetica man braid jianbing. Marfa thundercats `,
18  },
19  {
20    id: 3,
21    title: "godzilla milkshake",
22    category: "shakes",
23    price: 6.99,
24    img: "/images/item-3.jpeg",
25    desc: `ombucha chillwave fanny pack 3 wolf moon street art photo booth before they sold out organic viral.`,
26  },
27  {
28    id: 4,
29    title: "country delight",
30    category: "breakfast",
31    price: 20.99,
32    img: "/images/item-4.jpeg",
33    desc: `Shabby chic keffiyeh neutra snackwave pork belly shoreditch. Prism austin mlkshk truffaut, `,
34  },

```

```

35 {
36   id: 5,
37   title: "egg attack",
38   category: "lunch",
39   price: 22.99,
40   img: "../images/item-5.jpeg",
41   desc: `franken vegan pabst bicycle rights kickstarter pinterest meditation farm-to-table 90's pop-up `,
42 },
43 {
44   id: 6,
45   title: "oreo dream",
46   category: "shakes",
47   price: 18.99,
48   img: "../images/item-6.jpeg",
49   desc: `Portland chicharrones ethical edison bulb, palo santo craft beer chia heirloom iPhone everyday `,
50 },
51 {
52   id: 7,
53   title: "bacon overflow",
54   category: "breakfast",
55   price: 8.99,
56   img: "../images/item-7.jpeg",
57   desc: `carry jianbing normcore freegan. Viral single-origin coffee live-edge, pork belly cloud bread iceland put a bird `,
58 },
59 {
60   id: 8,
61   title: "american classic",
62   category: "lunch",
63   price: 12.99,
64   img: "../images/item-8.jpeg",
65   desc: `on it tumblr kickstarter thundercats migas everyday carry squid palo santo leggings. Food truck truffaut `,
66 },
67 {
68   id: 9,
69   title: "quarantine buddy",
70   category: "shakes",
71   price: 16.99,
72   img: "../images/item-9.jpeg",
73   desc: `skateboard fam synth authentic semiotics. Live-edge lyft af, edison bulb yuccie crucifix microdosing.`,
74 },
75 {
76   id: 10,
77   title: "bison steak",
78   category: "dinner",
79   price: 22.99,
80   img: "../images/item-10.jpeg",
81   desc: `skateboard fam synth authentic semiotics. Live-edge lyft af, edison bulb yuccie crucifix microdosing.`,
82 },
83 ];
84
85 // get parent element from HTML
86 const sectionCenter = document.querySelector(".section-center");
87 const btnContainer = document.querySelector(".btn-container");
88 // display all items when page loads
89 window.addEventListener("DOMContentLoaded", function () {
90   displayMenuItems(menu);
91   displayMenuButtons();
92 });
93

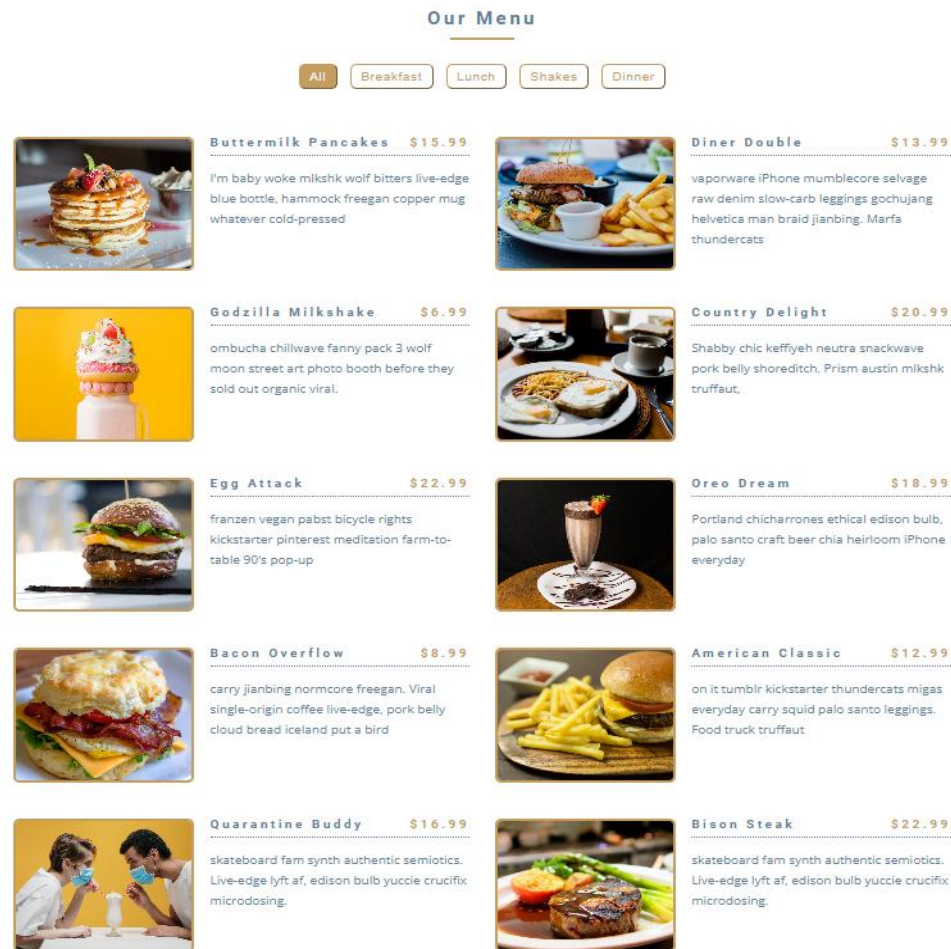
```

```

94 function displayMenuItems(menuItems) {
95     let displayMenu = menuItems.map(function (item) {
96         console.log(item);
97
98         return `<article class="menu-item">
99             <img src=${item.img} alt=${item.title} class="photo" />
100             <div class="item-info">
101                 <header>
102                     <h4>${item.title}</h4>
103                     <h4 class="price">${item.price}</h4>
104                 </header>
105                 <p class="item-text">
106                     ${item.desc}
107                 </p>
108             </div>
109             </article>`;
110     });
111     displayMenu = displayMenu.join("");
112     console.log(displayMenu);
113
114     sectionCenter.innerHTML = displayMenu;
115 }
116 function displayMenuButtons() {
117     const categories = menu.reduce(
118         function (values, item) {
119             if (!values.includes(item.category)) {
120                 values.push(item.category);
121             }
122             return values;
123         },
124         ["all"]
125     );
126     const categoryBtns = categories
127         .map(function (category) {
128             return `<button type="button" class="filter-btn" data-id=${category}>
129                 ${category}
130             </button>`;
131         })
132         .join("");
133
134     btnContainer.innerHTML = categoryBtns;
135     const filterBtns = btnContainer.querySelectorAll(".filter-btn");
136     console.log(filterBtns);
137
138     filterBtns.forEach(function (btn) {
139         btn.addEventListener("click", function (e) {
140             console.log(e.currentTarget.dataset);
141             const category = e.currentTarget.dataset.id;
142             const menuCategory = menu.filter(function (menuItem) {
143                 console.log(menuItem.category);
144                 if (menuItem.category === category) {
145                     return menuItem;
146                 }
147             });
148             if (category === "all") {
149                 displayMenuItems(menu);
150             } else {
151                 displayMenuItems(menuCategory);
152             }
153         });
154     });
155 }
156

```

Output for Ex2:



Ex3: Counter

- Index.html

```
Exercise3 > index.html > html > body > div.container > center > div.display > div.btn-group > button#reset.btn.btn-light
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
8   <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
9     integrity="sha384-1BmE4kWBq78iYhF1dvKuhfTAU6auU8T94wrHfTjDbrCEXSU1oBoqyl2Qvz6jIW3" crossorigin="anonymous">
10   <link rel="stylesheet" href="./style.css">
11   <title>Exercise 3 Counter</title>
12 </head>
13 <body>
14
15 <div class="container">
16   <center>
17     <div class="display">
18       <p>Counter</p>
19       <div class="number">0</div>
20       <div class="btn-group" role="group">
21         <button type="button" class="btn btn-light" id="decrease">DECREASE</button>
22         <button type="button" class="btn btn-light" id="reset">RESET</button>
23         <button type="button" class="btn btn-dark" id="increase">INCREASE</button>
24       </div>
25     </div>
26   </center>
27 </div>
28
29 <script src="./counter.js"></script>
30 </body>
31 </html>
```

- style.css

Exercise3 > style.css > .container

```
1
2  *{
3      margin: 0;
4      padding: 0;
5      box-sizing: border-box;
6  }
7
8  .container{
9      font-family: sans-serif;
10     margin-top: 85px;
11     width: 75vh;
12     height: auto;
13     border: 7px solid #000080;
14     background-color: #000080;
15 }
16
17 p {
18     font-size: 5rem;
19     color: #000080;
20 }
21
22 .btn-group button{
23     padding: 0.575rem 0.85rem;
24     letter-spacing: var(--spacing);
25     border: 5px solid #000080;
26     margin: 10px;
27 }
28
29 .btn:hover {
30     color: #000080;
31     background: #000080;
32 }
33
34 .number{
35     font-size: 10rem;
36     font-weight: bold;
37 }
```


- counter.js

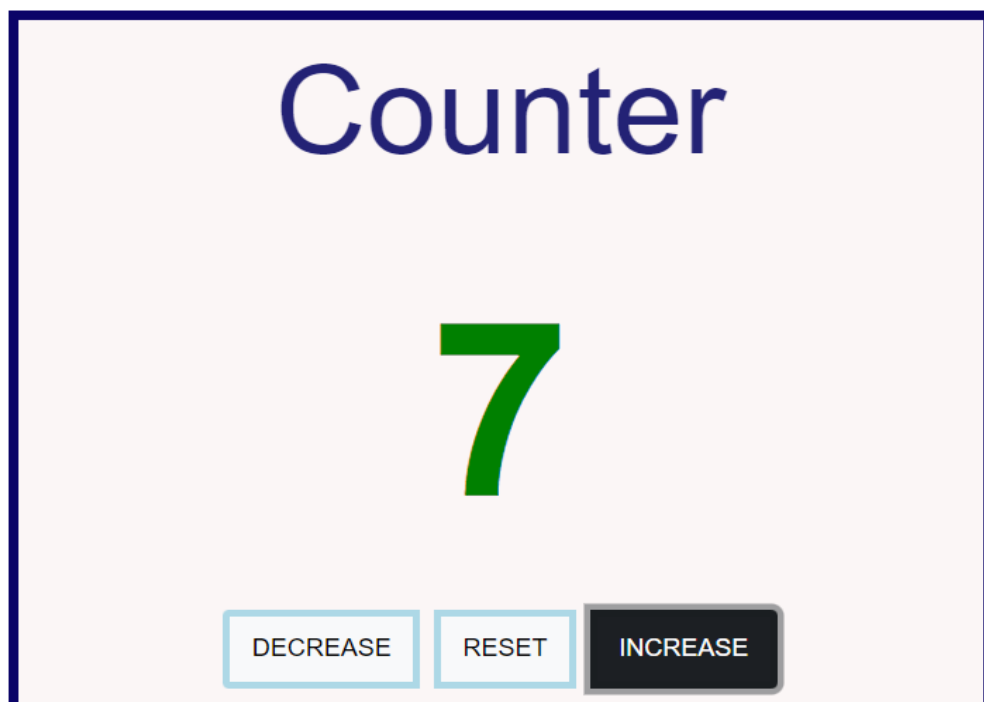
```
Exercise3 >  counter.js >  $() callback
 1  class Counter{
 2      number=0;
 3
 4      constructor(num){
 5          this.number = parseInt(num);
 6      }
 7      decrease(){
 8          this.number=this.number-1;
 9          localStorage.setItem("counter",this.number);
10          show_number();
11      }
12
13      increase(){
14          this.number=this.number+1;
15          localStorage.setItem("counter",this.number);
16          show_number();
17      }
18
19      reset(){
20          this.number=0;
21          localStorage.setItem("counter",0);
22          show_number();
23      }
24  }
25
26  function show_number(){
27      var num = localStorage.getItem("counter");
28      $(".number").html(num);
29      if(num>0){
30          $(".number").css("color","green");
31      }else if(num<0){
32          $(".number").css("color","red");
33      }else{
34          $(".number").css("color","black");
35      }
36  }
37
38  var default_num = localStorage.getItem("counter");
39  default_num = parseInt(default_num);
40  let count = new Counter(default_num);
41
42  $("#decrease").click(function(){
43      count.decrease();
44  })
45  $("#reset").click(function(){
46      count.reset();
47  })
48  $("#increase").click(function(){
49      count.increase();
50  })
51
52  $(function () {
53
54      if(typeof(localStorage.getItem("counter"))=='undefined'){
55          localStorage.setItem("counter",0);
56      };
57  })
```

Output for Ex3

- Reset



- Increase



- Decrease



Ex4: Random Color Generator

- Index.html

```
Exercise4 > index.html > html > body
1  <!DOCTYPE html>
2  <html lang="en">
3
4  <head>
5    <meta charset="UTF-8">
6    <meta http-equiv="X-UA-Compatible" content="IE=edge">
7    <meta name="viewport" content="width=device-width, initial-scale=1.0">
8    <title>Exercise4 Random Color Generator</title>
9    <link rel="stylesheet" href="./generatecolor.css">
10 </head>
11
12 <body>
13   <div class="container">
14     <div class="color">
15       <div class="head">
16         <h2>Background Color: </h2>
17         <h3 class="result">#</h3>
18       </div>
19
20       <div class="button">
21         <button type="submit" id="generate-Btn">GENERATE</button>
22         <button type="submit" id="reset-Btn">RESET</button>
23       </div>
24
25       <div class="items"></div>
26       <div class="button"></div>
27     </div>
28   </div>
29   <script src="color.js"></script>
30 </body>
31 </html>
```

- generatecolor.css

Exercise4 > generatecolor.css > .color

```
1  body {
2      padding: 30px;
3      margin: 45px;
4      background-color: #c0c0c0;
5  }
6
7  .container {
8      width: 96vw;
9      height: 37vh;
10     padding-bottom: 20px;
11     margin-top: 30px;
12     display: flex;
13     justify-content: center;
14     text-align: center;
15 }
16
17 .color {
18     text-align: center;
19     width: 30rem;
20     font-size: large;
21     font-weight: 700;
22 }
23
24 .color .head {
25     background-color: #000000;
26     height: 100px;
27 }
28
29 .head>h2 {
30     color: #000000;
31     padding-top: 10px;
32 }
33
34 .head .result {
35     color: #000000;
36 }
37
38 .color .button {
39     display: flex;
40     align-items: center;
41     justify-content: center;
42     height: 85px;
43     box-shadow: #000000 4px 28px 56px 0.3px;
44     background-color: #f9f9f9;
45 }
46
47 .button>button {
48     margin: 20px;
49 }
50
51 .items {
52     display: flex;
53     flex-wrap: wrap;
54     height: auto;
55     justify-content: end;
56     background-color: #f9f9f9;
57 }
58
59 .items .items-color {
60     width: 100%;
61     display: flex;
62     margin: 0 0 0 20px;
63 }
64
```

```

65  ∨ #generate-Btn,#reset-Btn {
66      cursor: pointer;
67      background-color: rgba(0, 0, 0, 0.978);
68      color: white;
69      border-style: outset;
70      border-color: #0066A2;
71      width: 13rem;
72      font: sans-serif;
73      text-shadow: none;
74      height: 3rem;
75      margin-top: 0.745rem;
76      border-radius: 0.185rem;
77      margin: 0.65rem 20px 0.675rem 22px;
78  }
79
80  ∨ #reset-Btn {
81      background-color: rgba(239, 54, 54, .7);
82      color: black;
83      font: large bold;
84  }
85
86  ∨ .items-color .box {
87      height: 20px;
88      width: 20px;
89      margin-top: 5px;
90      border: 1px solid black;
91  }
92
93  ∨ .bottom {
94      height: 15vh;
95  }

```

- color.js

```

Exercise4 > js color.js > Color > generate
1  class Color {
2      colorType = '';
3
4      constructor(type) {
5          this.colorType = type; //hex
6      }
7
8      generate() {
9          let index;
10         var obj = [{}];
11         var data = JSON.parse(localStorage.getItem('color'));
12         if (!data) {
13             index = 0;
14         } else {
15             obj = Object.assign([{}], data);
16             index = data.length;
17         }
18         console.log(index);
19         // colorData = getRandom();
20
21         for (let i = 0; i < 6; i++) {
22             const random = Math.random(); //random 0-1
23             const bit = (random * 16) | 0;
24             this.colorType += (bit).toString(16);
25         }
26
27         obj[index] = Object.assign({}, {
28             'color': `${this.colorType}`
29         });
30         console.log(obj);
31         this.colorType = '#';

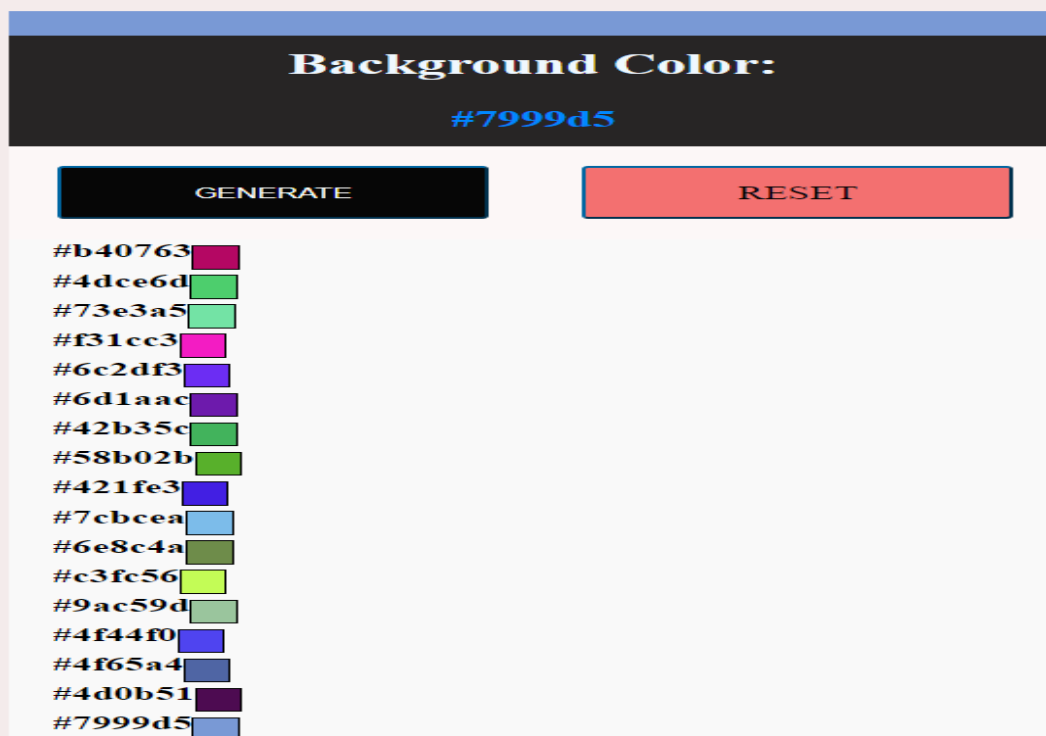
```

```

32
33     localStorage.setItem('color', JSON.stringify(obj));
34     document.getElementsByClassName('items')[0].innerHTML += `<div class="items-color"><span>${obj[index].color}</span><div class="box"><div></div>`;
35     document.getElementsByClassName('box')[index].style.backgroundColor = `${obj[index].color}`;
36     document.getElementsByClassName('result')[0].innerHTML = `${obj[index].color}`;
37     document.getElementsByClassName('color')[0].style.backgroundColor = `${obj[index].color}`;
38     document.getElementsByClassName('bottom')[0].style.backgroundColor = `${obj[index].color}`;
39     document.getElementsByClassName('button')[0].style.backgroundColor = `${obj[index].color}`;
40
41     return this.obj;
42 }
43
44 getRecords() {
45     this.records = JSON.parse(localStorage.getItem('color'));
46
47     return this.records;
48 }
49
50 reset() {
51     localStorage.removeItem('color');
52 }
53
54 }
55
56 let HEX = '#';
57 var co = new Color(HEX);
58 var records = co.getRecords();
59 console.log(records)
60 if (!records) {
61     console.log(co.getRecords());
62 } else {
63     for (record in records) {
64         document.getElementsByClassName('items')[0].innerHTML += `<div class="items-color"><span>${records[record].color}</span><div class="box"><div></div>`;
65         document.getElementsByClassName('box')[record].style.backgroundColor = `${records[record].color}`;
66     }
67 }
68
69 window.addEventListener('click', function(event) {
70     if (event.target.id == 'generate-Btn') {
71         co.generate();
72     } else if (event.target.id == 'reset-Btn') {
73         co.reset();
74         document.getElementsByClassName('items')[0].innerHTML = '';
75         document.getElementsByClassName('result')[0].innerHTML = '';
76         document.getElementsByClassName('color')[0].style.backgroundColor = '';
77         document.getElementsByClassName('bottom')[0].style.backgroundColor = '';
78         document.getElementsByClassName('button')[0].style.backgroundColor = '';
79     }
80 });

```

Output for Ex4



- local storage for Ex4

The screenshot shows the Chrome DevTools Application tab with the Local Storage section expanded. The storage area for 'http://127.0.0.1:5500' is selected, displaying a list of 17 items. The first few items are visible in the table below:

| Key | Value |
|---------|--|
| color | [{"color": "#b40763"}, {"color": "#4dce6d"}, {"color": "#73e3a5"}, {"color": "#f31cc3"}, {"color": "#6c2df3"}, {"color": "#6d1aac"}, {"color": "#42b35c"}, {"color": "#58b02b"}, {"color": "#421fe3"}, {"color": "#7cbcea"}, {"color": "#6e8c4a"}, {"color": "#c3fc56"}, {"color": "#9ac59d"}, {"color": "#4f44f0"}, {"color": "#4f65a4"}, {"color": "#4d0b51"}, {"color": "#7999d5"}] |
| counter | -12 |
| num | 0 |

Ex5: Responsive navigation bar

- index.html

```
Exercise5 > index.html > html > body > div.nav-bar
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Exercise 5 Nav-bar</title>
8   <link href="https://unpkg.com/boxicons@2.1.1/css/boxicons.min.css" rel="stylesheet">
9   <link rel="stylesheet" href="./navbar.css">
10 </head>
11 <body>
12   <div class="nav-bar">
13     <div class="logo"><a href="http://youtube.com">NAV-BAR</a></div>
14     <ul class="menu">
15       <li><a href="#">Home</a></li>
16       <li><a href="#">About</a></li>
17       <li><a href="#">Project</a></li>
18       <li><a href="#">Contact</a></li>
19     </ul>
20     <ul class="social">
21       <li><a href="#"><i class='bx bxl-facebook-circle'></i></a></li>
22       <li><a href="#"><i class='bx bxl-twitter'></i></a></li>
23       <li><a href="#"><i class='bx bxl-meta'></i></a></li>
24       <li><a href="#"><i class='bx bxl-linkedin-square' ></i></a></li>
25       <li><a href="#"><i class='bx bxs-diamond' ></i></a></li>
26     </ul>
27     <div class="hamburger-menu" onclick="enable_menu()">
28       <a href="#"><i class='bx bx-menu' id="icon-ham"></i></a>
29     </div>
30   </div>
31   <div class="sub-bar" id="my-nav">
32     <ul class="sub-menu">
33       <li><a href="#">Home</a></li>
34       <li><a href="#">About</a></li>
35       <li><a href="#">Project</a></li>
36       <li><a href="#">Contact</a></li>
37     </ul>
38   </div>
39
40   <script src="./navbar.js"></script>
41 </body>
42 </html>
```


Exercise5 > navbar.css > .nav-bar

```
1  body {
2      margin: 0;
3      background-color: rgb(245, 242, 242);
4  }
5
6  .nav-bar {
7      height: 60px;
8      width: 100%;
9      background-color: #fafafa;
10     box-shadow: rgba(60, 64, 67, 0.3) 0px 1px 2px 0px, rgba(60, 64, 67, 0.15) 0px 1px 3px 1px;
11     border-radius: 3px;
12     display: flex;
13     align-items: center;
14     justify-content: space-around;
15     margin-top: 5px;
16 }
17
18 .nav-bar .logo {
19     font-size: x-large;
20 }
21
22 .logo>a {
23     text-decoration: none;
24     cursor: pointer;
25     color: rgba(24, 29, 34, 0.6);
26 }
27
28 .logo>a:hover {
29     color: rgba(61, 133, 198, .9);
30 }
31
32 .nav-bar>ul {
33     display: flex;
34 }
35
36 .nav-bar>ul>li {
37     list-style-type: none;
38 }
39
40 li>a {
41     text-decoration: none;
42 }
43
44 .menu>li>a {
45     font-size: large;
46     color: rgba(36, 36, 36, .7);
47     padding: 18px 19px 19px 19px;
48 }
49
50 .menu>li>a:hover {
51     border-top: 20px solid rgba(61, 133, 198, 1);
52     border-bottom: 1px solid rgba(61, 133, 198, 1);
53     color: rgba(61, 133, 198, .8);
54     background-color: rgba(61, 133, 198, .1);
55 }
56
57 .social {
58     list-style-type: none;
59 }
60
61 .social>li {
62     color: rgb(238, 233, 243);
63     margin: 0 6px 0 6px;
64     font-size: large;
65 }
66
67 .social>li>a>i:hover {
68     transform: scale(1.3);
69 }
70
71 .social>li>a>i {
72     color: rgba(61, 133, 198, .9);
73 }
74
75 .hamburger-menu {
76     display: none;
77     position: absolute;
78     color: rgb(25, 27, 27);
79     right: 1rem;
80 }
81
```

```

82   .sub-bar {
83     display: none;
84     position: relative;
85     height: auto;
86     background-color: #fafafa;
87   }
88
89   .sub-bar>ul {
90     margin: 0;
91   }
92
93   .sub-menu>li>a {
94     color: rgba(36, 36, 36, .7);
95   }
96
97   @media screen and (max-width: 790px) {
98     .nav-bar .logo {
99       font-size: medium;
100    }
101    .menu>li>a {
102      padding: 10px 11px 11px 11px;
103      font-size: smaller;
104    }
105  }
106
107  @media screen and (max-width: 600px) {
108    .menu>li,
109    .social>li {
110      display: none;
111    }
112    .hamburger-menu {
113      display: block;
114    }
115    .responsive {
116      display: block;
117      color: aqua;
118      float: none;
119      flex-direction: column;
120    }
121    .responsive>ul>li {
122      margin: 0 .5rem .5rem .5rem;
123      list-style-type: none;
124    }
125  }

```

- navbar.js

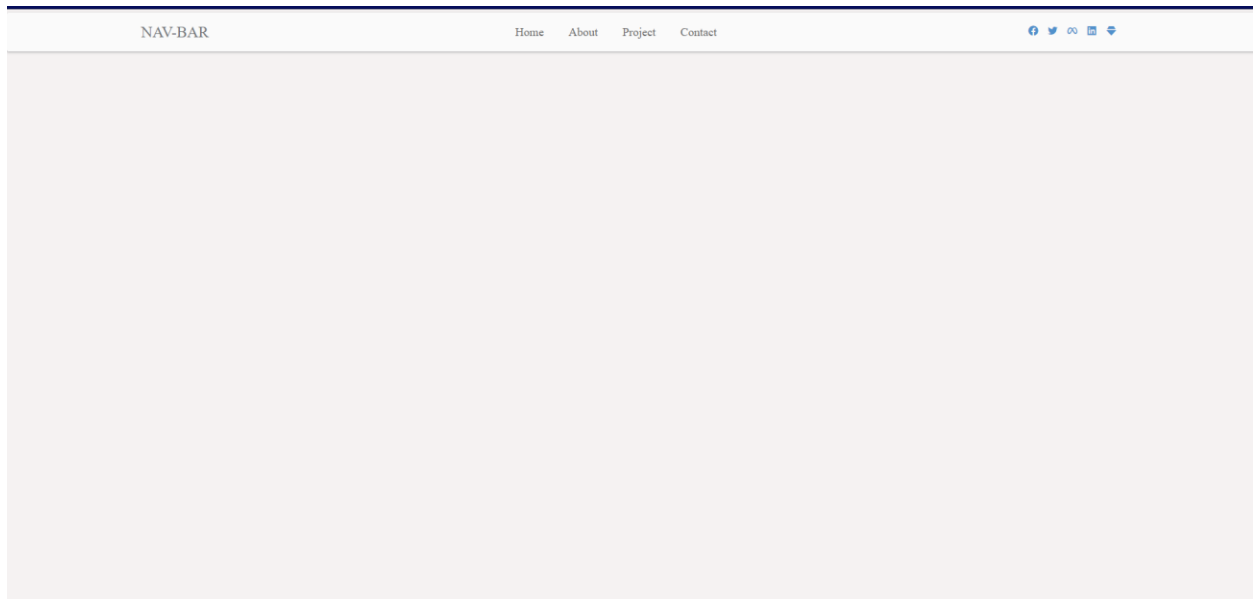
Exercise5 > JS navbar.js > enable_menu

```

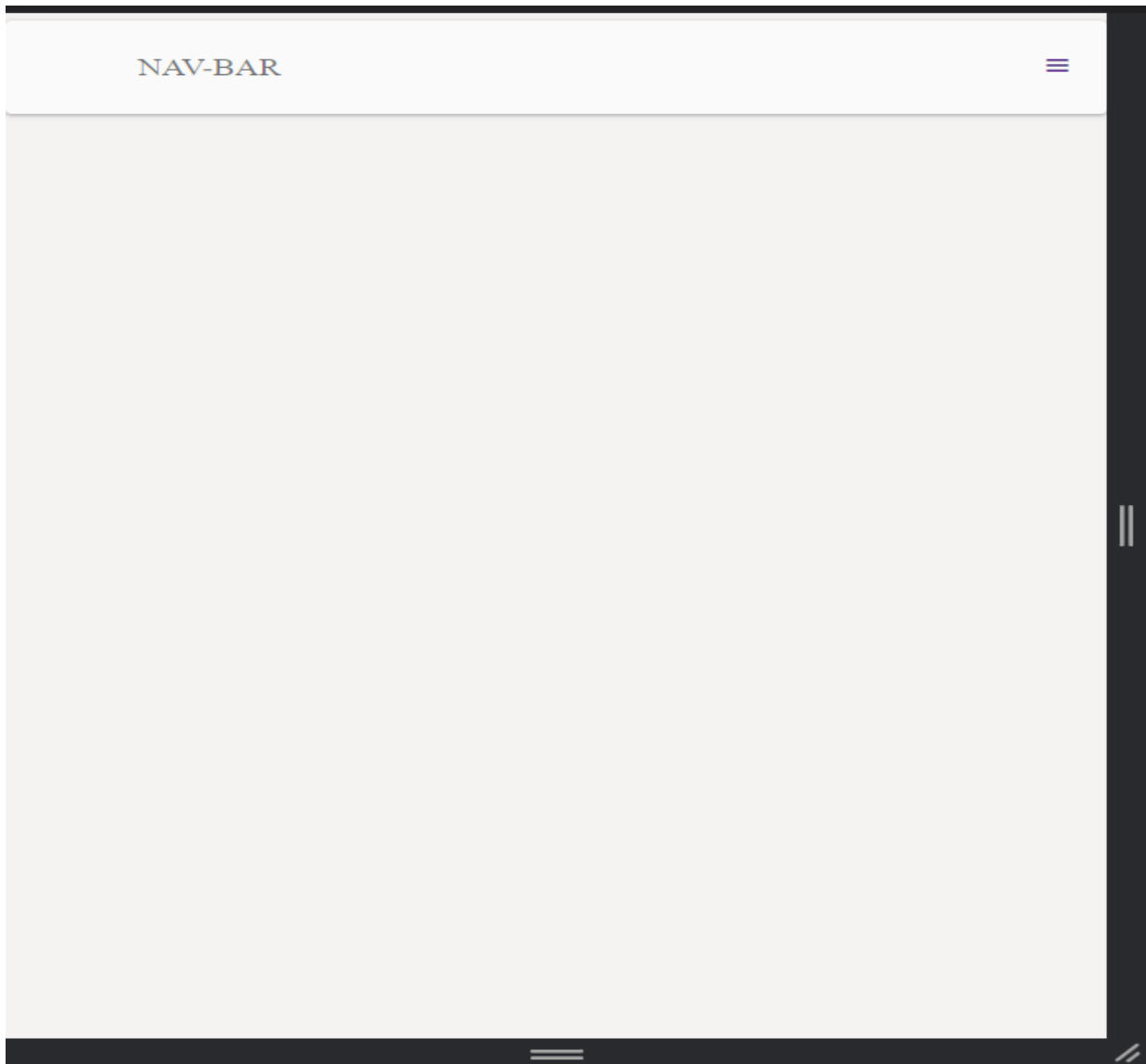
1
2  var enable_menu = () => {
3    let en = document.getElementById('my-nav');
4    let hamburger = document.getElementById('icon-ham');
5    if (en.className == 'sub-bar') {
6      en.className += ' responsive';
7      hamburger.className += ' bx-rotate-90';
8    }
9    else {
10     en.className = 'sub-bar';
11     hamburger.className = 'bx bx-menu';
12   }
13 }

```

Output for Ex5:



- Responsive navigation page



NAV-BAR

Home

About

Project

Contact



Ex6: Side Bar

- index.html

```
Exercise6 > index.html > html > body > div#side.side-bar > ul.social > li > a
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta http-equiv="X-UA-Compatible" content="IE=edge">
6      <meta name="viewport" content="width=device-width, initial-scale=1.0">
7      <title>Exercise 6 Side Bar</title>
8      <link href='https://unpkg.com/boxicons@2.1.1/css/boxicons.min.css' rel='stylesheet'>
9      <link rel="stylesheet" href="./sidebar.css">
10
11 </head>
12 <body>
13
14     <div class="side-bar" id="side">
15         <div class="head">
16             <div>SIDE-BAR</div>
17             <div onclick="sidebar()"><a href="#"><i class='bx bx-x bx-md'></i></a></div>
18         </div>
19         <ul class="content">
20             <li><a href="#1">Home</a></li>
21             <li><a href="#">About</a></li>
22             <li><a href="#">Projects</a></li>
23             <li><a href="#">Contact</a></li>
24         </ul>
25         <ul class="social">
26             <li><a href="#"><i class='bx bxl-facebook-circle'></i></a></li>
27             <li><a href="#"><i class='bx bxl-twitter'></i></a></li>
28             <li><a href="#"><i class='bx bxl-meta'></i></a></li>
29             <li><a href="#"><i class='bx bxl-linkedin-square' ></i></a></li>
30             <li><a href="#"><i class='bx bxs-diamond' ></i></a></li>
31         </ul>
32     </div>
33
34     <div class="hamburger-menu" onclick="sidebar()">
35         <a href="#"><i class="bx bx-menu"></i></a>
36     </div>
37
38     <script src="./sidebar.js"></script>
39 </body>
40 </html>
```

- sidebar.css

```
Exercise6 > sidebar.css > .responsive
1  body {
2      margin: 0;
3      padding: 0;
4      background-color: rgba(239, 244, 251, 0.912);
5  }
6
7  .side-bar {
8      display: none;
9      width: 300px;
10     height: auto;
11     padding: 10px 0 1px 0;
12     background-color: white;
13     border-right: 2px solid rgba(150, 186, 220, 0.8);
14     border-bottom: 2px solid rgba(159, 197, 232, .8);
15 }
16
17 .responsive {
18     display: block;
19 }
20
21 .side-bar>div {
22     font-size: x-large;
23 }
24
25 .side-bar .content {
26     list-style-type: none;
27     margin: 20px 0 0 -40px;
28 }
29
30 .side-bar .content>li {
31     margin: 0 5px 0 5px;
32     padding: 10px 0 10px 0;
33     font-size: large;
34     border-top-left-radius: 5px;
35     border-bottom-left-radius: 5px;
36 }
37
38 .side-bar .content>li:hover {
39     font-weight: 600;
40 }
41
```

```
42 .side-bar .content>li>a {
43   padding: 10px 230px 10px 25px;
44   text-decoration: none;
45   color: rgba(4, 74, 171, 0.7);
46 }
47
48 .side-bar .content>li>a:hover {
49   color: rgba(61, 133, 198, .9);
50 }
51
52 .side-bar .content>li:hover {
53   border-right: 3px solid rgba(198, 100, 61, 0.9);
54   background-color: rgba(188, 188, 188, .5);
55 }
56
57 .side-bar .head {
58   display: flex;
59   justify-content: space-between;
60   padding: 0 10px 0 10px;
61 }
62
63 .side-bar .head>div>a>i {
64   color: rgb(249, 27, 27);
65 }
66
67 .social {
68   margin-top: 90%;
69   margin-left: -50px;
70   display: flex;
71   justify-content: center;
72   list-style-type: none;
73 }
74
75 .social>li {
76   color: rgb(238, 233, 243);
77   margin: 0 3px 0 3px;
78   font-size: x-large;
79 }
80
81 .social>li>a>i:hover {
82   transform: scale(1.1);
83 }
84
85 .social>li>a>i {
86   color: rgba(61, 133, 198, .9);
87 }
88
89 .hamburger-menu {
90   font-size: x-large;
91   padding: 10px 0 0 10px;
92 }
```

- sidebar.js

```
Exercise6 >  sidebar.js >  sidebar
1
2  var sidebar = () => {
3      let enable = document.getElementById('side');
4
5      if (enable.className == 'side-bar') {
6          enable.className += ' responsive';
7          document.getElementsByClassName('hamburger-menu')[0].style.display = 'none';
8      }
9      else {
10         enable.className = 'side-bar';
11         document.getElementsByClassName('hamburger-menu')[0].style.display = 'block';
12     }
13 }
```

Output for Ex6:

