Institute of Technology of Cambodia

Department of Information and Communication Engineering

I4-GIC-C

Internet Programming I

Lecturer: HOK Tin

ReportTP04: JavaScript

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Exercise 1

```html
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>exe1</title>
8       <script src="https://cdn.tailwindcss.com"></script>
9       <style>
10          @media only screen and (max-width: 1000px){
11              #wrapper{
12                  flex-direction: column;
13              }
14          }
15      </style>
16  </head>
17  <body class="w-full flex justify-center items-center">
18      <div class="w-[65%] bg-[#f1f5f8] border-4 border-black p-8 m-auto">
19          <div>
20              <h1 class="flex justify-center text-[30px]"><strong>About</strong></h1>
21              <p class="flex justify-center">Lorem ipsum dolor sit amet consectetur adipiscing elit!</p>
22          </div>
23          <div id="wrapper" class="w-full flex">
24              <div class="w-full py-4">
25                  <img class="rounded-lg w-[100%]" src="https://images.unsplash.com/photo-1516051733211-2492fab1d3a5?ixlib=rb
26                  -4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=848&q=80" alt="">
27              </div>
28              <div class="w-full pt-4">
29                  <div class="flex w-full h-[8%] bg-[#dbe2ec] rounded-t-lg">
30                      <button id="history" class=" w-1/3 rounded-tl-lg hover:!bg-[#f1f5f8]" type="button">History</button>
31                      <button id="vision" class=" w-1/3 hover:!bg-[#f1f5f8]" type="button">Vision</button>
32                      <button id="goals" class=" w-1/3 rounded-tr-lg hover:!bg-[#f1f5f8]" type="button">Goals</button>
33                  </div>
34
35                  <div id="content" class="bg-white w-full  rounded-b-lg p-2"></div>
36              </div>
37          </div>
38      </div>
39
40      <script>
41          var historyBtn = document.getElementById('history')
42          var visionBtn = document.getElementById('vision')
43          var goalsBtn = document.getElementById('goals')
44          var content = document.getElementById('content')
45
46          function selectFirstTab(){
47              historyBtn.style.backgroundColor = "white"
48              visionBtn.style.backgroundColor = "#dbe2ec"
49              goalsBtn.style.backgroundColor = "#dbe2ec"
50
51              content.innerHTML=`
52              <div><strong>Histone</strong></div>
53              <div>I'm baby wolf pickled schlitz try-hard normcore marfa man bun mumblecore vice pop-up XOXO lomo kombucha
54                  glossier bicycle rights. Umami kinfolk salvia jean shorts offal venmo. Knausgaard tilde try- hard, woke
55                  fixie banjo man bun. Small batch tumeric mustache tbh wayfarers 8-bit shaman chartreuse tacos. Viral direct
56                  trade hoodie ugh chambray, craft beer pork belly flannel tacos single- origin coffee art party migas plaid
57                  pop-up</div>
58              `
59          }
60          selectFirstTab();
61
62          historyBtn.addEventListener("click",() => {
63              selectFirstTab();
64          });
65
66          visionBtn.addEventListener("click",() =>{
67              historyBtn.style.backgroundColor = "#dbe2ec"
68              visionBtn.style.backgroundColor = "white"
69              goalsBtn.style.backgroundColor = "#dbe2ec"
70
71              content.innerHTML=`
72              <div><strong>Vision</strong></div>
73              <div >Man bun PBR&B keytar copper mug prism, hell of helvetica. Synth crucifix offal deep v hella biodiesel.
74                  Church-key listicle polaroid put a bird on it chillwave palo santo enamel pin, tattooed meggings franzen
75                  la croix cray. Retro yr aesthetic four loko tbh helvetica air plant, neutra palo santo tofu mumblecore.
76                  Hoodie bushwick pour-over jean shorts chartreuse shabby chic. Roof party hammock master cleanse pop-up
77                  truffaut, bicycle rights skateboard affogato readymade sustainable deep v live-edge schlitz narwhal</div>
78              `
79          })
80
81          goalsBtn.addEventListener("click",() =>{
82              historyBtn.style.backgroundColor = "#dbe2ec"
83              visionBtn.style.backgroundColor = "#dbe2ec"
84              goalsBtn.style.backgroundColor = "white"
85
86              content.innerHTML=`
87              <div>
88                  <strong>Goals</strong>
89                  <p>Anyone whose goal is 'something higher' must expect someday to suffer vertigo. What is vertigo? Fear
90                      of falling? No, Vertigo is something other than fear of falling. It is the voice of the emptiness below
91                      us which tempts and lures us, it is the desire to fall, against which, terrified, we defend ourselves.
92                      </p></div>
93              `
94          })
95      </script>
96  </body>
97  </html>
```

About

Lorem ipsum dolor sit amet consectetur adipiscing elit!

History	Vision	Goals

Histone

I'm baby wolf pickled schlitz try-hard normcore marfa man bun mumblecore vice pop-up XOXO lomo kombucha glossier bicycle rights. Umami kinfolk salvia jean shorts offal venmo. Knausgaard tilde try- hard, woke fixie banjo man bun. Small batch tumeric mustache tbh wayfarers 8-bit shaman chartreuse tacos. Viral direct trade hoodie ugh chambray, craft beer pork belly flannel tacos single- origin coffee art party migas plaid pop-up

About

Lorem ipsum dolor sit amet consectetur adipiscing elit!

History	Vision	Goals

Histone

I'm baby wolf pickled schlitz try-hard normcore marfa man bun mumblecore vice pop-up XOXO lomo kombucha glossier bicycle rights. Umami kinfolk salvia jean shorts offal venmo. Knausgaard tilde try- hard, woke fixie banjo man bun. Small batch tumeric mustache tbh wayfarers 8-bit shaman chartreuse tacos. Viral direct trade hoodie ugh chambray, craft beer pork belly flannel tacos single- origin coffee art party migas plaid pop-up

Exercise 2

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>exe2</title>
    <script src="https://cdn.tailwindcss.com"></script>
    <style>
        .imgr{
            height: 300px;
        }
        img{
            object-fit: cover;
        }
        @media only screen and (max-width: 1000px){
            .my-6{
                flex-direction: column;
            }
            .imgr{
                height: 300px;
            }
            img{
                object-fit: cover;
            }
            #wrapper{
                width: 90%;
            }
        }
    </style>
</head>
<body class="w-full flex justify-center ">
    <div id="wrapper" class="w-[60%] bg-[#f1f5f8] border-4 border-black p-8">
        <div class="text-center text-[#182e3f] text-[40px]"><strong>Our Menu</strong></div>
        <div class="flex justify-center py-6">
            <div class="bg-[#c29c69] w-[20%] h-1"></div>
        </div>
        <div class="flex justify-center gap-2 text-[#c29c69] ">
            <button class="border-2 border-[#c29c69] rounded-lg w-8 hover:!bg-[#c29c69] hover:!text-white" type="button">All</button>
            <button class="border-2 border-[#c29c69] rounded-lg w-20 hover:!bg-[#c29c69] hover:!text-white" type="button">Breakfast</button>
            <button class="border-2 border-[#c29c69] rounded-lg w-14 hover:!bg-[#c29c69] hover:!text-white" type="button">Lunch</button>
            <button class="border-2 border-[#c29c69] rounded-lg w-16 hover:!bg-[#c29c69] hover:!text-white" type="button">Shakes</button>
            <button class="border-2 border-[#c29c69] rounded-lg w-14 hover:!bg-[#c29c69] hover:!text-white" type="button">Dinner</button>
        </div>
        <div class="my-6 w-full flex ">
            <div class="imgr w-[100%]  mr-8 border-4 border-[#c29c69] rounded-lg ">
                <img class="w-full h-full rounded" src="https://crystalandcomp.com/wp-content/uploads/2016/07/homemade-buttermilk-pancakes--720x720.png" alt="">
            </div>
            <div class="w-full">
                <div class="flex justify-between">
                    <div class="text-[#182e3f]"><strong>Buttermilk Pancakes</strong></div>
                    <div class="text-[#c29c69]"><strong>$ 13.99</strong></div>
                </div>
                <div class="w-full h-[1px] bg-[#182e3f] my-2"></div>
                <div class="text-[#858c92]">I'm baby woke mlkshk wolf bitters live-edge blue bottle, hammock freegan copper mug whatever cold-pressed</div>
            </div>
        </div>

        <div class="my-6 w-full flex">
            <div class="imgr w-[100%] mr-8 border-4 border-[#c29c69] rounded-lg ">
                <img class="w-full h-full rounded" src="https://www.bongards.com/wp-content/uploads/2018/11/Double-Stack-Burger.jpg" alt="">
            </div>
            <div class="w-full">
                <div class="flex justify-between">
                    <div class="text-[#182e3f]"><strong>Diner Double</strong></div>
                    <div class="text-[#c29c69]"><strong>$ 13.99</strong></div>
                </div>
                <div class="w-full h-[1px] bg-[#182e3f] my-2"></div>
                <div class="text-[#858c92]">vaporware iPhone mumblecore selvage raw denim slow-carb leggings gochujang helvetica man braid jianbing. Marfa
                    thundercats</div>
            </div>
        </div>

        <div class="my-6 w-full flex">
            <div class="imgr w-[100%] mr-8 border-4 border-[#c29c69] rounded-lg ">
                <img class="w-full h-full rounded" src="https://www.shaketherapy.ca/wp-content/uploads/2021/07/HP-15.jpg" alt="">
            </div>
            <div class="w-full">
                <div class="flex justify-between">
                    <div class="text-[#182e3f]"><strong>Godzilla Milkshake</strong></div>
                    <div class="text-[#c29c69]"><strong>$ 6.99</strong></div>
                </div>
                <div class="w-full h-[1px] bg-[#182e3f] my-2"></div>
                <div class="text-[#858c92]">ombucha chillwave fanny pack 3 wolf moon street art photo booth before they sold out organic viral</div>
            </div>
        </div>
    </div>
</body>
</html>
```

Our Menu

Buttermilk Pancakes $ 13.99

I'm baby woke mlkshk wolf bitters live-edge blue bottle, hammock freegan copper mug whatever cold-pressed

Diner Double $ 13.99

vaporware iPhone mumblecore selvage raw denim slow-carb leggings gochujang helvetica man braid jianbing. Marfa thundercats

Godzilla Milkshake $ 6.99

ombucha chillwave fanny pack 3 wolf moon street art photo booth before they sold out organic viral

Our Menu

Buttermilk Pancakes $ 13.99

I'm baby woke mlkshk wolf bitters live-edge blue bottle, hammock freegan copper mug whatever cold-pressed

Diner Double $ 13.99

vaporware iPhone mumblecore selvage raw denim slow-carb leggings gochujang helvetica man braid jianbing. Marfa thundercats

Godzilla Milkshake $ 6.99

ombucha chillwave fanny pack 3 wolf moon street art photo booth before they sold out organic viral

Exercise 3

```html
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>exe3</title>
8       <script src="https://cdn.tailwindcss.com"></script>
9   </head>
10  <body class="w-full flex justify-center">
11      <div class="w-[50%] border-4 border-black p-2">
12          <div class="bg-[#f1f5f8] p-2 py-[70%]">
13              <div class="flex justify-center text-[#102a42] text-[50px]"><strong>Counter</strong></div>
14              <div id="counter" class="flex justify-center text-[70px]"></div>
15              <div class="flex justify-center gap-[5%]">
16                  <button id="decrease" class="border-2 border-black rounded px-3 hover:!bg-black hover:!text-white" type="button">DECREASE</button>
17                  <button id="reset" class="border-2 border-black rounded px-3 hover:!bg-black hover:!text-white" type="button">RESET</button>
18                  <button id="increase" class="bg-black text-white border-2 border-black rounded px-3 hover:!bg-white hover:!text-black"
19                  type="button">INCREASE</button>
20              </div>
21          </div>
22      </div>
23  </div>
24  <script>
25      var result_counter = document.getElementById("counter")
26      var decreaseBtn = document.getElementById("decrease")
27      var resetBtn = document.getElementById("reset")
28      var increaseBtn = document.getElementById("increase")
29      class Counter{
30          num = 0;
31          constructor(){
32              result_counter.innerHTML = localStorage.getItem("counter");
33          }
34          decrease(){
35              this.num -= 1;
36              return this.num;
37          }
38          reset(){
39              this.num = 0;
40              return this.num;
41          }
42          increase(){
43              this.num += 1;
44              return this.num;
45          }
46      }
47
48      var counter = new Counter();
49
50      function decrease(){
51          localStorage.setItem("counter",counter.decrease());
52          result_counter.innerHTML = localStorage.getItem("counter");
53      }
54
55      function reset(){
56          localStorage.setItem("counter",counter.reset());
57          result_counter.innerHTML = localStorage.getItem("counter")
58      }
59
60      function increase(){
61          localStorage.setItem("counter",counter.increase());
62          result_counter.innerHTML = localStorage.getItem("counter");
63      }
64
65      decreaseBtn.addEventListener("click",decrease)
66      resetBtn.addEventListener("click",reset)
67      increaseBtn.addEventListener("click",increase)
68
69  </script>
70  </body>
71  </html>
```

Counter

4

DECREASE RESET INCREASE

Exercise 4

```html
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>exe4</title>
8       <script src="https://cdn.tailwindcss.com"></script>
9   </head>
10  <body class="w-full h-[100vh] flex justify-center items-center" onload="color.displayColor()">
11      <div class="w-[50%] h-full bg-[#f5f5f5] border-4 border-black p-2">
12          <div class="bg-white w-full h-full">
13              <div class="text-[#4ba8e9] p-5 "><strong>Random Color Generator</strong></div>
14
15              <div  class="wrapper py-3 px-1">
16                  <div class="bg-black rounded py-4 mb-4">
17                      <div class="flex justify-center text-white"><strong>Background Color:</strong></div>
18                      <div id="code" class="flex justify-center text-white"></div>
19                  </div>
20                  <div class="flex justify-center gap-[5%]">
21                      <button id="generate" class="bg-black border-2 border-black text-white rounded py-2 px-4" onclick="color.generate()"
22                      type="button">GENERATE</button>
23                      <button id="reset" class="border-2 border-black rounded py-2 px-4" onclick="color.reset()" type="button">RESET</button>
24                  </div>
25              </div >
26              <div id="display" class="h-1/3 bg-white overflow-y-scroll p-2"></div>
27              <div class="wrapper w-full h-1/3"></div>
28          </div>
29      </div>
30      <script>
31          class Color {
32              colorType = "HEX";
33              records = [];
34
35              constructor(type){
36                  this.colorType = type;
37                  // this.records=[]
38                  this.getRecords();
39                  // console.log(this.records);
40              }
41
42              generate() {
43                  let color = this.getRandomNumber();
44                  // console.dir(this.records);
45
46                  this.records.push(color);
47                  localStorage.setItem('colorGen', JSON.stringify(this.records));
48                  this.displayColor();
49              }
50              displayColor(){
51                  // console.log(this.records);
52
53                  document.getElementById("display").innerHTML = "";
54                  document.getElementsByClassName("wrapper")[0].style.backgroundColor = this.records[this.records.length-1];
55                  document.getElementsByClassName("wrapper")[1].style.backgroundColor = this.records[this.records.length-1];
56                  document.getElementById("code").innerHTML = this.records[this.records.length-1];
57
58                  for(let i=this.records.length-1; i>=0; i--){
59                      document.getElementById("display").innerHTML += `<div class="text">${this.records[i]}<div class="square" style="background-color: ${this.records[i]};"></div> </div>`
60                  }
61
62              }
63              getRandomNumber(){
64                  var letters = '0123456789ABCDEF';
65                  var color = '#';
66                  for (var i = 0; i < 6; i++) {
67                  color += letters[Math.floor(Math.random() * 16)];
68                  }
69                  return color;
70              }
71              getRecords(){
72                  this.records =localStorage.getItem("colorGen")!=null? JSON.parse(localStorage.getItem('colorGen')):[];
73                  // console.log(this.records);
74              }
75              reset(){
76                  this.records = [];
77                  localStorage.setItem('colorGen', JSON.stringify(this.records));
78                  document.getElementById("display").innerHTML = "";
79                  document.getElementsByClassName("wrapper")[0].style.backgroundColor = "unset";
80                  document.getElementsByClassName("wrapper")[1].style.backgroundColor = "unset";
81              }
82          }
83          var color = new Color("HEX");
84      </script>
85  </body>
86  </html>
```

Random Color Generator

Background Color:
#0647DC

GENERATE   RESET

#0647DC
#F60AE7
#214CAD
#EC0544
#5F7288
#5D9724
#820A94
#99C284
#FEF3D7

Exercise 5

```
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>exe5</title>
8       <script src="https://cdn.tailwindcss.com"></script>
9       <script src="tween.umd.js"></script>
10      <style>
11          #bars{
12              display: none;
13          }
14          #output{
15              display: none;
16          }
17
18          @media only screen and (max-width: 800px) {
19              #content{
20                  display: none;
21              }
22              #icon{
23                  display: none;
24              }
25              #bars{
26                  display: flex;
27              }
28              #output{
29                  display: block;
30              }
31          }
32      </style>
33  </head>
34  <body class="w-full flex justify-center">
35      <div class="w-[90%] bg-[#f1f5f8]  border-8 border-black p-2">
36
37          <div class="bg-white w-full  flex justify-between px-4">
38
39              <div class="text-[#102a42] text-[200%]"><strong>NAV-BAR</strong></div>
40
41              <div id="content" class="w-1/3 flex items-center justify-between">
42                  <span>Home</span>
43                  <span>About</span>
44                  <span>Projects</span>
45                  <span>Contact</span>
46              </div>
47
48              <div id="icon" class="w-1/5 flex items-center gap-[10%] ">
49                  <div class="w-1/5">
50                      <img src="./img/facebook.png" alt="">
51                  </div>
52                  <div class="w-1/5">
53                      <img src="./img/twitter.png" alt="">
54                  </div>
55                  <div class="w-1/5">
56                      <img src="./img/behance.png" alt="">
57                  </div>
58                  <div class="w-1/5">
59                      <img src="./img//linkedin.png" alt="">
60                  </div>
61                  <div class="w-1/5">
62                      <img src="./img/diamond.png" alt="">
63                  </div>
64              </div>
65              <div id="bars" class="flex items-center">
66                  <button id="bar" type="button" >
67                      <svg onclick="run()" xmlns="http://www.w3.org/2000/svg" fill="none"
68                      viewBox="0 0 24 24" stroke-width="1.5" stroke="currentColor" class="w-6 h-6">
69                          <path stroke-linecap="round" stroke-linejoin="round" d="M3.75 6.75h16.5M3.75
70                          .5m-16.5 5.25h16.5" />
71                      </svg>
72                  </button>
73              </div>
74
```

```html
        </div>
        <!-- hidden -->
        <div id="output" class="bg-white w-full h-0 px-4 overflow-hidden">
            <div>Home</div>
            <div>About</div>
            <div>Projects</div>
            <div>Contact</div>
        </div>
    </div>
    <script>
        var barsBtn = document.getElementById('bar')
        var output = document.getElementById('output')
        var pos = {start: 0, end: 170}
        function render(x){
            // output.style.position = 'absolute';
            output.style.height = x+'px';
            barsBtn.style.rotate = -(x/1.88888)+"deg"

        }
        function animate() {
            requestAnimationFrame(animate)
            TWEEN.update()
        }
        requestAnimationFrame(animate)
        const init = (start, End) => {
            const coords = { x: start}
            const tween = new TWEEN.Tween(coords)
                .to({ x:End}, 500)
                .easing(TWEEN.Easing.Quadratic.out)
                .onUpdate(() => {
                    render(coords.x)
                    let tmp = pos.start
                    pos.start = pos.end
                    pos.end = tmp
                })
                .start()
        }
        function run () {
            init(pos.start, pos.end)
        }
    </script>
</body>
</html>
```
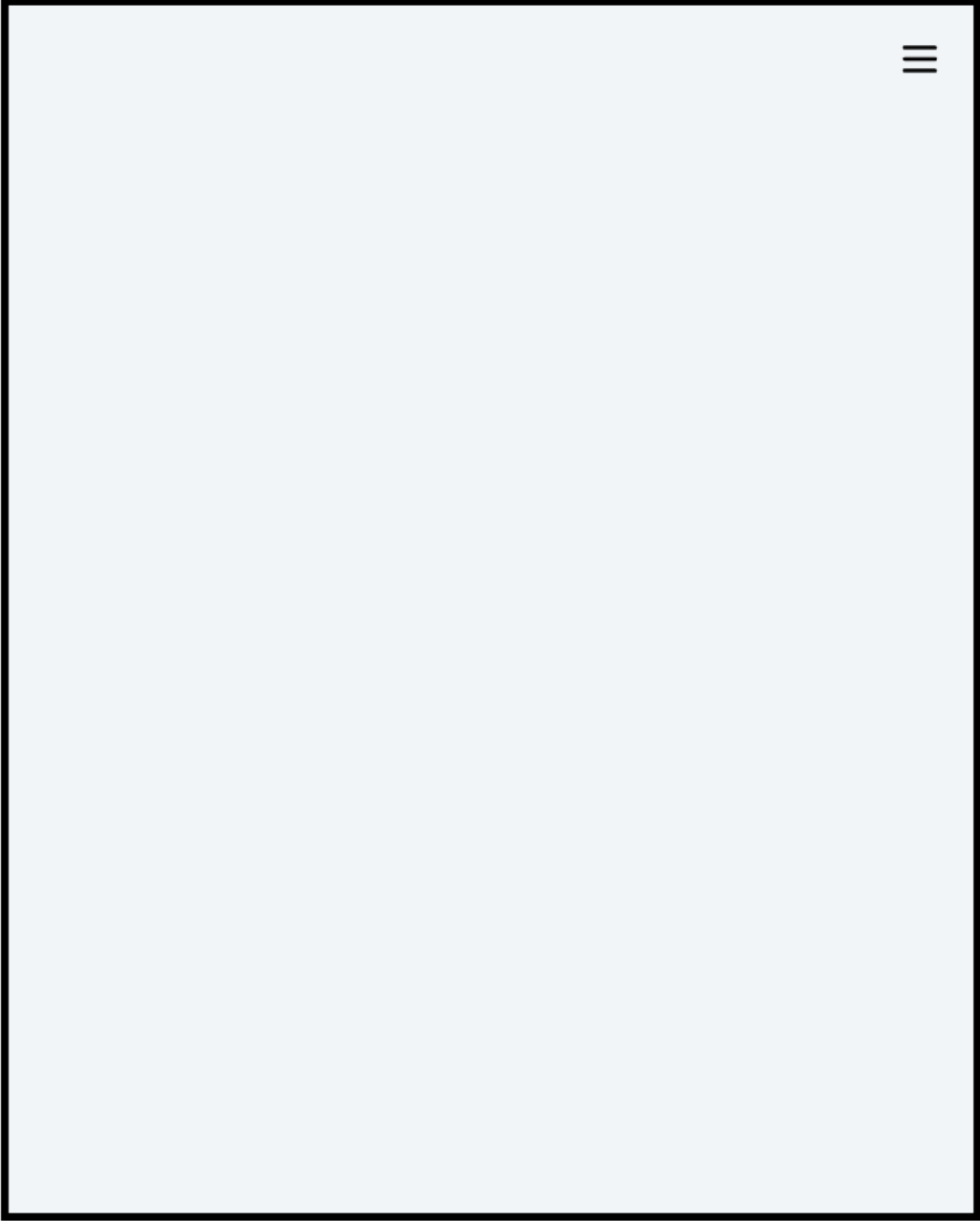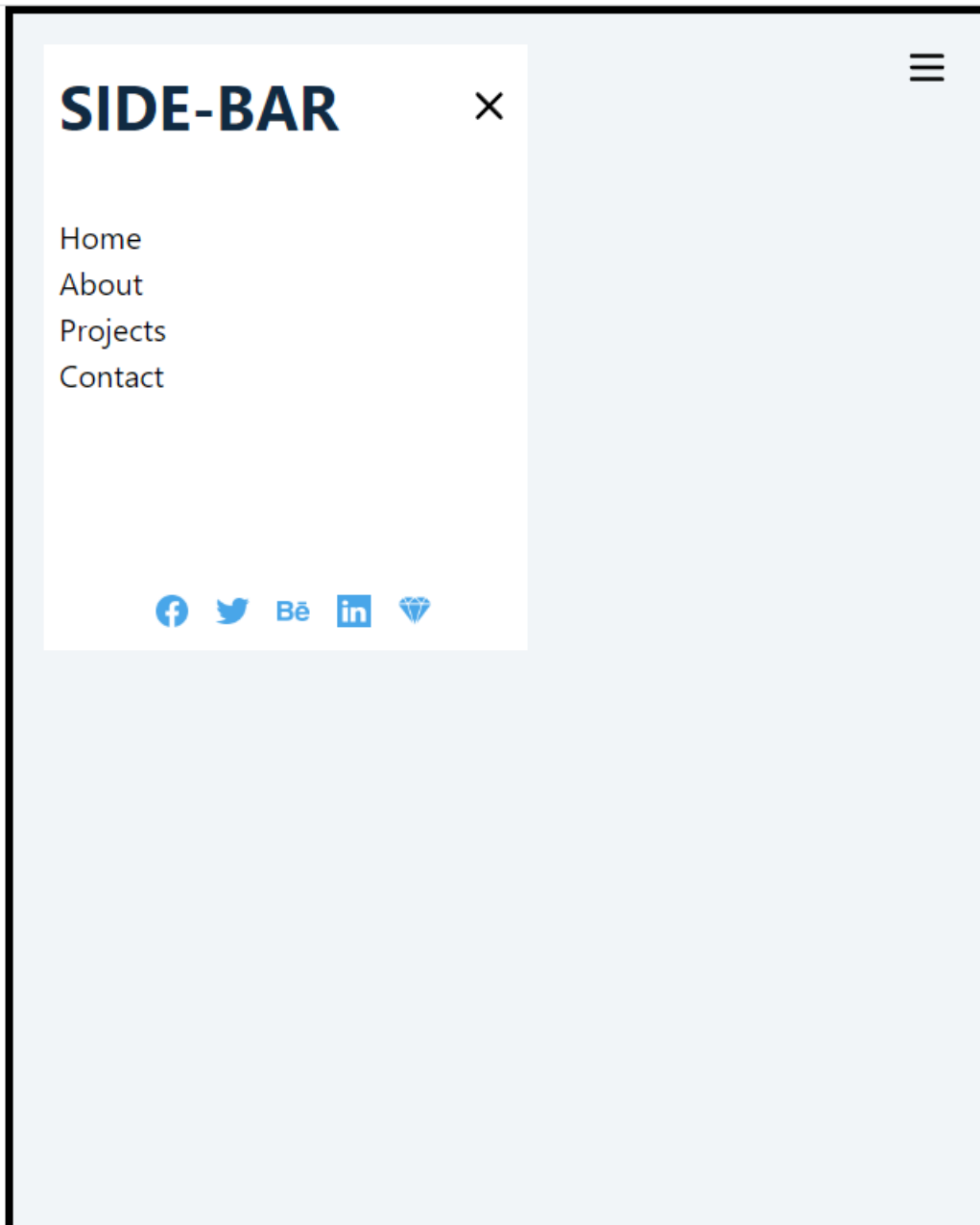
NAV-BAR

≡

NAV-BAR

⦀

Home
About
Projects
Contact

NAV-BAR　　　　Home　　About　　Projects　　Contact　　　　f 🐦 Bē in ◆

Exercise 6

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>exe6</title>
    <script src="https://cdn.tailwindcss.com"></script>
    <script src="tween.umd.js"></script>
    <style>
        #navLink{
            position: absolute;
            right: 130%;
            transition: 1s;
        }
    </style>
</head>
<body class="w-full h-[90vh] flex justify-center">
    <div class="w-[80%] h-full border-4 border-black bg-[#f1f5f8] p-4 relative flex justify-end items-start">
        <div id="navLink" class="w-[50%] h-[50%] bg-white ml-4 p-2">
            <div class="flex justify-between">
                <div class="text-[#102a42] text-[200%]"><strong>SIDE-BAR</strong></div>
                <button onclick="hideMenu()">
                    <svg xmlns="http://www.w3.org/2000/svg" class="h-6 w-6" fill="none" viewBox="0 0 24 24"
                    stroke="currentColor" stroke-width="2">
                        <path stroke-linecap="round" stroke-linejoin="round" d="M6 18L18 6M6 6l12 12" />
                    </svg>
                </button>
            </div>
            <div class="pt-8 pb-[40%]">
                <div>Home</div>
                <div>About</div>
                <div>Projects</div>
                <div>Contact</div>
            </div>
            <div id="icon" class="flex absolute bottom-3 px-[20%] gap-[10%] ">
                <div class="w-1/5">
                    <img src="./img/facebook.png" alt="">
                </div>
                <div class="w-1/5">
                    <img src="./img/twitter.png" alt="">
                </div>
                <div class="w-1/5">
                    <img src="./img/behance.png" alt="">
                </div>
                <div class="w-1/5">
                    <img src="./img//linkedin.png" alt="">
                </div>
                <div class="w-1/5">
                    <img src="./img/diamond.png" alt="">
                </div>
            </div>
        </div>
        <button onclick="showMenu()" type="button">
            <svg xmlns="http://www.w3.org/2000/svg" class="h-6 w-6" fill="none" viewBox="0 0 24 24" stroke="currentColor"
            stroke-width="2">
                <path stroke-linecap="round" stroke-linejoin="round" d="M4 6h16M4 12h16M4 18h16" />
            </svg>
        </button>
    </div>
    <script>
        var navLink = document.getElementById("navLink");
        function showMenu(){
            navLink.style.left = "0%";
        }
        function hideMenu(){
            navLink.style.left = "-80%";
        }
    </script>
</body>
</html>
```

Github: