# **SACRED HEART COLLEGE**

(AUTONOMOUS)



# **B.Sc. COMPUTER APPLICATIONS**

## PRACTICAL RECORD

	Name		
	Class	Roll No	
	Reg. No	Year	
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(O)	ffice Seal)	Lectu	re in charge
Submitted for	the University Practi	ical Examination held on	20
Date:		Extern	al Examiner

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## 1 Simple Html Page

### 1.1 Aim

- Design a webpage for your department.
- Utilize paragraphs and lists.
- Create links of the words Wifi and LAN to their respective wikipedia pages
- Insert an image that redirects to the college website
- Change the background color and create a link at the bottom to return to the top

```
<!DOCTYPE html>
   <html>
3
     <head>
        <title>
4
         Simple Html Page
        </title>
        <style>
          body {
            font-family: Arial, Helvetica, sans-serif;
            background: #eff1f5;
            color: #4c4f69;
11
            font-size: 1.3em;
12
          }
13
          body::-webkit-scrollbar { display: none;}
          .container {
15
            display: flex;
16
            flex-direction: column;
            justify-content: center;
18
            align-items: center;
19
            background-color: #e6e9ef;
20
21
            border-radius: 8px;
            padding: 0.5em;
22
            gap: 3px;
23
          }
24
          .dark {
            background-color: #dce0e8;
26
27
          a {
28
            color: #dc8a78;
30
          #college-img {
31
            background-image: url('https://www.shcollege.ac.in/wp-content/uploads/2020/11
32
            background-repeat: no-repeat;
33
            background-position: center;
34
            width: 90vw;
35
            height: 50vh;
36
            border-radius: inherit;
37
          }
38
         li {
            margin-right: 0.9em;
40
41
        </style>
42
```

```
</head>
43
     <body>
44
       <a id="top"></a>
       <div class="container">
46
47
           <u>The Computer Science Department</u>
         </h1>
         50
           The <b>Computer Science Department</b> of Sacred Heart College, Thevara was
51
           \hookrightarrow established in 2001.
           And since have molded industry leading professionals. Orientations are held
52
           \rightarrow periodically to discuss advancements and
           rising trends in the field enabling understanding of cutting-edge
53
            _{\mathrel{\mathrel{\hookrightarrow}}} technologies. Students are provided with campus wide
           <a href="https://en.wikipedia.org/wiki/Wi-Fi">Wi-Fi</a> available to their
54
            \rightarrow portable devices and Computer Systems
           constituting a <a
55
            → href="https://en.wikipedia.org/wiki/Local_area_network">Local Area

→ Network</a>

         56
         The Department offers the following programs:
           <div class="container dark">
59
60
               <b>B.Sc. Computer Applications</b> (Triple Main incl. Mathematics &
61

    Statistics)

               <b>B. Computer Applications</b> (BCA: Mobile Applications and Cloud
62

    technologies)

               <b>M. Sc. Integrated Computer Science</b> (Data Science)
63
             64
           </div>
65
         66
         <a id="college-img" href="https://www.shcollege.ac.in/">
67
         </a>
68
         <a href="#top" style="margin-top: 10px;">Back to top</a>
69
       </div>
70
     </body>
   </html>
```

# **The Computer Science Department**

The **Computer Science Department** of Sacred Heart College, Thevara was established in 2001. And since have molded industry leading professionals. Orientations are held periodically to discuss advancements and rising trends in the field enabling understanding of cutting-edge technologies. Students are provided with campus wide <u>Wi-Fi</u> available to their portable devices and Computer Systems constituting a <u>Local Area Network</u>

### The Department offers the following programs:

- B.Sc. Computer Applications (Triple Main incl. Mathematics & Statistics)
- B. Computer Applications (BCA: Mobile Applications and Cloud technologies)
- M. Sc. Integrated Computer Science (Data Science)



Back to top

## 2 Time Table

### 2.1 Aim

• Design the class time table in HTML using table tag

```
<!DOCTYPE html>
    <html>
2
      <head>
3
        <title>
5
          time table
        </title>
6
        <style>
          :root { --flamingo: #dd7878; }
          body {
9
            font-family: Arial, Helvetica, sans-serif;
10
            color: #4c4f69;
            font-size: 1.3em;
12
          }
13
          table {
14
            overflow: none;
            border-collapse: collapse;
16
            border-color: var(--flamingo);
17
          }
          th, td, tr {
19
            padding: 10px;
20
            border-top: solid;
21
            border-left: solid;
22
            border-right: solid;
            border-width: 2px;
24
          }
25
          tr, td {
26
            border-bottom: solid;
            text-align: center;
28
            border-color: inherit;
29
            color: var(--flamingo);
30
          }
31
          .flamingo {
32
            background-color: var(--flamingo);
33
            color: snow;
          }
35
          .center {
36
            width: 100%;
37
            height: 98vh;
            display: flex;
39
            flex-direction: column;
40
            justify-content: center;
41
            align-items: center;
          }
43
          .down {
44
            writing-mode: vertical-lr;
45
            text-orientation: upright;
            font-size: 1.4em;
47
            letter-spacing: 8px;
48
            color: snow;
49
            background-color: var(--flamingo);
```

```
}
51
    </style>
52
   </head>
   <body>
54
    <div class="center">
55
      B.Sc. Computer Application S4
57
      58
       Monday
59
       Differential
       DBMS
61
       AWT
62
       BREAK
63
       Stat
       Sampling
65
      66
      67
       Tuesday
68
       Sampling
69
       Differential
70
       Sampling
       AWT
       Stat
73
      74
      75
       Wednesday
       Stat
77
       DBMS
78
       AWT
       Sampling
80
       Sampling
81
      82
      83
       Thursday
84
       Differential
85
       Differential
86
       DBMS
       Stat
88
       AWT
89
      90
91
      Friday
92
       Stat
93
       DBMS
94
       Differential
       LAB
96
       LAB
97
      98
     </div>
100
   </body>
101
  </html>
102
```

B.Sc. Computer Application S4									
Monday	Differential	DBMS	AWT	В	Stat	Sampling			
Tuesday	Sampling	Differential	Sampling	R	AWT	Stat			
Wednesday	Stat	DBMS	AWT	Е	Sampling	Sampling			
Thursday	Differential	Differential	DBMS	A	Stat	AWT			
Friday	Stat	DBMS	Differential	K	LAB	LAB			

### 3 CSS

#### 3.1 Aim

- utlize inline css for appending styles to html elements
- utilize an external css stylesheet

```
<!DOCTYPE html>
   <html>
2
     <head>
        <title>
         Cascading Style Sheets
5
        </title>
6
        <link rel="stylesheet" href="styles.css">
     </head>
     <body>
        <div class="container">
10
          <h1 style="color: #dc8a78;"> <u>Cats are the best</u> </h1>
11
          12
            Cats, with their enigmatic grace and independent spirit, have captivated human
13
            \mbox{\ }\mbox{\ }\mbox{\ } hearts for millennia. Their slender
            bodies adorned with sleek fur, often in a myriad of colors and patterns, exude
            \rightarrow elegance and agility. From the regal
            posture of a Siamese to the fluffy charm of a Maine Coon, each breed carries
15
            \rightarrow its own unique allure. Their eyes, like
            orbs of liquid gold or emerald pools, reflect an intelligence and curiosity
            → that seem to pierce through the soul,
            hinting at the depths of their mysterious nature.
17
            <img src="https://i.pinimg.com/originals/7c/e9/24/7ce9242425aeacfccde52df4cc2|</pre>
            → 07c90.jpg" alt="" width="150px" style="border-radius:
                8px;">
          19
          20
            <img src="https://i.pinimg.com/736x/ed/38/08/ed38082f612fefb0ba51abc84178a797 |</pre>
21
            → .jpg" alt="" width="150px" style="border-radius:
            Beyond their physical beauty, cats possess a remarkable array of behaviors and
            \hookrightarrow characteristics that further endear them
            to humans. Their unparalleled agility and reflexes make them formidable
23
            \rightarrow hunters, capable of executing acrobatic feats
            with precision and stealth. Yet, juxtaposed with this predatory prowess is
            \rightarrow their gentle and affectionate side. Cats have
            an innate ability to form deep bonds with their human companions, often
25
            \hookrightarrow displaying acts of loyalty and companionship
            that defy their reputation for aloofness.
          27
          28
            One of the most fascinating aspects of cats is their complex communication

→ system. From the subtle twitch of an ear to

            the melodious purr of contentment, they have mastered the art of conveying
30
            \rightarrow their emotions without uttering a single
            word. Their repertoire of vocalizations, ranging from plaintive meows to
            \rightarrow thunderous yowls, serves as a means of
            expressing desires, seeking attention, or issuing warnings. Furthermore, their
32
            \ensuremath{\scriptscriptstyle{\hookrightarrow}} body language, including tail flicks,
```

```
kneading paws, and arched backs, provides additional insight into their mood
33
            \hookrightarrow and intentions.
           <img src="https://i.pinimg.com/474x/26/79/43/26794354f259b5bb807e870cef23fceb|</pre>
              .jpg" alt="" width="150px" style="border-radius:
            \hookrightarrow
              8px;">
         36
            <img src="https://i.pinimg.com/originals/fa/99/de/fa99deb4b20e3a419aaafcd8503|</pre>
37
            → abbdc.jpg" alt="" width="150px" style="border-radius:

→ 8px;">

           In addition to their charm and charisma, cats also offer a plethora of
38
            \rightarrow benefits to their human counterparts. Numerous
           studies have highlighted the positive impact of cat ownership on mental
39
            \rightarrow health, with their soothing presence and
           affectionate companionship serving as sources of comfort and stress relief.
40
            → Furthermore, their playful antics and
           inquisitive nature bring joy and laughter into the lives of their owners,
41
            \hookrightarrow fostering a sense of happiness and well-being.
           Whether curled up contentedly in a sunbeam or engaged in a spirited game of
42
            enrich the lives of those fortunate enough to share their company.
         </div>
45
     </body>
46
   </html>
47
      external stylesheet
```

```
body {
      font-family: Arial, Helvetica, sans-serif;
      font-size: 1.3em;
3
   }
   body::-webkit-scrollbar { display: none;}
    .container {
6
     display: flex;
     flex-direction: column;
      justify-content: center;
     align-items: center;
10
     padding: 50px;
      gap: 15px;
12
   }
13
   p {
14
      all: unset;
15
      border-radius: 8px;
16
     display: flex;
17
     align-items: center;
     padding: 10px;
19
     gap: 15px;
20
   }
21
    .rose {
22
      box-shadow: 5px 6px 5px #dc8a78;
23
24
   .pink {
25
     box-shadow: 5px 6px 5px #ea76cb;
26
   }
27
   .lavender {
28
     box-shadow: 5px 6px 5px #7287fd;
29
```

```
30  }
31  .maroon {
32   box-shadow: 5px 6px 5px #e64553;
33  }
```

# Cats are the best

Cats, with their enigmatic grace and independent spirit, have captivated human hearts for millennia. Their slender bodies adorned with sleek fur, often in a myriad of colors and patterns, exude elegance and agility. From the regal posture of a Siamese to the fluffy charm of a Maine Coon, each breed carries its own unique allure. Their eyes, like orbs of liquid gold or emerald pools, reflect an intelligence and curiosity that seem to pierce through the soul, hinting at the depths of their mysterious nature.





Beyond their physical beauty, cats possess a remarkable array of behaviors and characteristics that further endear them to humans. Their unparalleled agility and reflexes make them formidable hunters, capable of executing acrobatic feats with precision and stealth. Yet, juxtaposed with this predatory prowess is their gentle and affectionate side. Cats have an innate ability to form deep bonds with their human companions, often displaying acts of loyalty and companionship that defy their reputation for aloofness.

One of the most fascinating aspects of cats is their complex communication system. From the subtle twitch of an ear to the melodious purr of contentment, they have mastered the art of conveying their emotions without uttering a single word. Their repertoire of vocalizations, ranging from plaintive meows to thunderous yowls, serves as a means of expressing desires, seeking attention, or issuing warnings. Furthermore, their body language, including tail flicks, kneading paws, and arched backs, provides additional insight into their mood and intentions.





In addition to their charm and charisma, cats also offer a plethora of benefits to their human counterparts. Numerous studies have highlighted the positive impact of cat ownership on mental health, with their soothing presence and affectionate companionship serving as sources of comfort and stress relief. Furthermore, their playful antics and inquisitive nature bring joy and laughter into the lives of their owners, fostering a sense of happiness and well-being. Whether curled up contentedly in a sunbeam or engaged in a spirited game of chase, cats have a remarkable ability to enrich the lives of those fortunate enough to share their company.

### 4 Form

#### 4.1 aim

- Create a simple form
- with fields name age address etc.
- $\bullet$  include radio buttons checkboxes and a password field

```
<html>
      <head>
2
        <title>Form</title>
        <script src="https://cdn.tailwindcss.com"></script>
4
      </head>
5
     <body>
        <section class="w-full h-screen flex flex-col justify-center items-center">
          <h1 class="text-3xl text-blue-400 font-semibold mb-2"> Form </h1>
          <form class="bg-slate-100 flex flex-col p-3 rounded-lg gap-1">
            <div class="flex flex-row justify-between">
              Full name:
              <input type="text" name="fullname"</pre>
12
                class="text-center"
13
              />
            </div>
15
            <div class="flex flex-row justify-between">
16
              Gender: 
              <div class="flex flex-row gap-3 justify-evenly">
18
                <input type="radio" name="gender" value="male" class="">male</input>
19
                <input type="radio" name="gender" value="female">female</input>
20
                <input type="radio" name="gender" value="other">other</input>
              </div>
22
            </div>
23
            <div class="flex flex-row justify-between">
              Date of Birth:
25
              <input type="date" name="dob"/>
26
            </div>
27
            <div class="flex flex-row justify-between">
28
              Address:
29
              <input type="text" name="address"</pre>
                class="text-center"/>
31
            </div>
32
            <div class="flex flex-row justify-between gap-3">
33
              Favourite Language:
34
              <input type="checkbox" name="sub" value="Java">Java</input>
35
              <input type="checkbox" name="sub" value="PHP">C</input>
36
              <input type="checkbox" name="sub" value="Rust">Rust</input>
            </div>
38
            <div class="flex flex-row justify-between">
39
              Favourite Singer:
              <input type="text" name="singer"</pre>
41
                class="text-center"
42
```

```
/>
43
             </div>
44
             <div class="flex flex-row justify-between">
45
               Favourite Movie:
46
               <input type="text" name="movie"</pre>
                 class="text-center"
               />
49
             </div>
50
             <div class="flex flex-row justify-between">
51
               Email Id:
52
               <input type="email" name="email"</pre>
53
                 class="text-center"
               />
55
             </div>
56
             <div class="flex flex-row justify-between">
57
               Password:
58
               <input type="password" name="pasw"</pre>
59
                 class="text-center"
               />
61
             </div>
62
             <input
63
               class="bg-slate-300 hover:bg-slate-200 p-3 mt-2 rounded-md cursor-pointer"
64
               type="submit" value="Submit"
65
66
           </form>
67
        </section>
68
      </body>
69
    </html>
70
```

### **Form**



## 5 Semester Re-registration Webpage

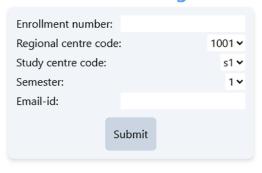
### 5.1 Aim

- Design a form with the following entries
- Enrolment No.
- Regional Centre Code (Drop-down)
- Study Centre Code (Drop-down)
- Semester (Drop-down)
- Email Id

```
<html>
     <head>
2
        <title>Re-registeration Form</title>
3
        <script src="https://cdn.tailwindcss.com"></script>
4
     </head>
     <body>
        <section class="w-full h-screen flex flex-col justify-center items-center">
          <h1 class="text-3xl text-blue-400 font-semibold mb-2">Semester Re-register</h1>
          <form class="bg-slate-100 flex flex-col p-3 rounded-lg gap-1 drop-shadow-md">
            <div class="flex flex-row justify-between gap-3">
10
              Enrollment number:
11
              <input type="text" required class="text-center">
12
            </div>
            <div class="flex flex-row justify-between gap-3">
14
              Regional centre code:
15
              <select name="rcc" required>
16
                <option value="1001">1001</option>
                <option value="1002">1002</option>
18
                <option value="1003">1003</option>
19
              </select>
20
            </div>
            <div class="flex flex-row justify-between gap-3">
22
              Study centre code:
23
              <select name="scc" required>
                <option value="s1">s1</option>
25
                <option value="s2">s2</option>
26
                <option value="s3">s3</option>
              </select>
            </div>
29
            <div class="flex flex-row justify-between gap-3">
              Semester:
31
              <select name="semester" required>
32
                <option value=1>1</option>
33
                <option value=2>2</option>
                <option value=3>3</option>
35
              </select>
36
37
            <div class="flex flex-row justify-between gap-3">
38
              Email-id:
39
```

```
<input type="email" required class="text-center">
40
           </div>
41
           <input type="submit"</pre>
             class="bg-slate-300 hover:bg-slate-200 w-fit p-3 self-center rounded-md mt-2
43
             />
44
         </form>
       </section>
46
     </body>
47
   </html>
```

# Semester Re-register



### 6 Profit or Loss

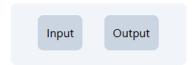
### 6.1 Aim

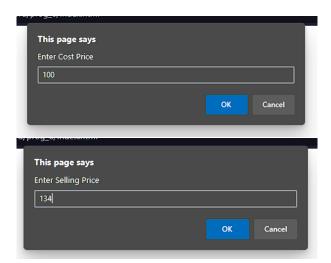
- Write a JavaScript solution for the following
- Accept the cost price and selling price with a button
- Create a button to calculate the loss or profit and display it

```
<!DOCTYPE html>
   <html>
      <head>
        <title>Profit Calculator</title>
4
        <script src="https://cdn.tailwindcss.com"></script>
5
      </head>
      <body>
        <section class="w-full h-screen flex flex-col justify-center items-center">
          <h1 class="text-orange-400 text-3xl font-semibold mb-2">Profit Calculator</h1>
          <div class="bg-slate-100 flex flex-col p-4 gap-1 rounded-lg">
            <div class="flex flex-row justify-evenly gap-2 w-52">
              <button
12
                type="button" onclick="get()"
13
                class="bg-slate-300 rounded-lg p-3 hover:bg-slate-200 active:bg-slate-400"
15
                Input
16
              </button>
17
              <button
                type="button" onclick=profit()
19
                class="bg-slate-300 rounded-lg p-3 hover:bg-slate-200 active:bg-slate-400"
20
21
                Output
              </button>
23
            </div>
24
            <p
25
              id="output"
              class="text-orange-400 text-xl text-center font-semibold font-sans"
27
            >
28
          </div>
29
        </section>
30
        <script>
31
          var profit_amt = 0;
32
          var sell_price = 0;
          var cost_price = 0;
34
          function profit() {
35
            profit_amt = ((sell_price - cost_price)/cost_price ) * 100;
36
            let result = "";
37
            if (profit_amt > 0) {
38
              result = "Your profit is " + profit_amt + "%"
39
            } else {
              result = "Your loss is " + profit_amt + "%"
41
42
            document.getElementById("output").innerHTML = result;
43
          }
          function get() {
45
```

```
cost_price = prompt("Enter Cost Price");
sell_price = prompt("Enter Selling Price");
sell_price = prompt("Enter Selling Price");
sell_price = prompt("Enter Selling Price");
sell_price = prompt("Enter Cost Price");
sell_price = prompt("Enter Selling Price");
sell_price = price = pr
```

# **Profit Calculator**





# **Profit Calculator**



### 7 Electrical Connection Form

### 7.1 Aim

- Create a form with the following fields
- Permanent or temporary connection (radio button)
- Government or Private house (radio button)
- Name and Email

```
<!DOCTYPE html>
   <html>
     <head>
       <title>Electric Form</title>
       <script src="https://cdn.tailwindcss.com"></script>
     </head>
     <body>
       <section class="w-full h-screen flex flex-col justify-center items-center">
         <h1 class="mb-2 text-3xl text-orange-400 font-semibold">
           Electrical Connection Form
         </h1>
11
         <form
12
           class="bg-slate-100 flex flex-col p-4 gap-1 rounded-lg"
13
           id="myform"
           onsubmit=validate()
15
16
           17
             Specify Connection Type:
           19
           <div class="flex flex-row gap-3">
20
             <input name="connection" type="radio" value="temp" >
21
               temporary
             </input>
23
             <input name="connection" type="radio" value="perm" >
24
               permanent
25
             </input>
26
           </div>
27
           Specify House Type:
29
30
           <div class="flex flex-row gap-3">
31
             <input name="house" type="radio" value="gov" >
               government house
33
             </input>
34
             <input name="house" type="radio" value="private" >
35
               private house
             </input>
37
38
           <div class="flex flex-row justify-between">
39
             Name:
             <input
41
               class="w-3/4 rounded-md text-center"
42
               type="text"
43
               placeholder=" Enter your name"
```

```
/>
45
            </div>
46
            <div class="flex flex-row justify-between">
              Email:
48
              <input
49
                class="w-3/4 rounded-md text-center"
                type="email"
51
               placeholder=" Enter your email"
52
53
            </div>
            <input
55
              class="bg-slate-300 w-fit self-center p-2 rounded-1 mt-3 font-semibold
56

→ cursor-pointer hover:bg-slate-200"

              type="submit" value="Submit"
            />
58
          </form>
59
        </section>
60
       <script>
61
          function validate() {
62
           let form = document.getElementById("myform");
63
           for (let input of form.elements) {
              if (input.value == "") {
                alert("Kindly fill all values");
66
                return;
67
              }
68
           }
69
            alert("Form Submitted Successfully");
70
71
        </script>
     </body>
73
   </html>
```

# **Electrical Connection Form**



### 8 Word Search

### 8.1 Aim

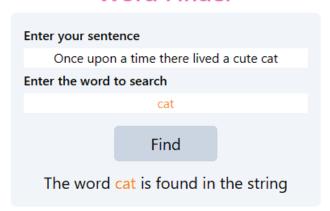
- Write a JavaScript Program to search for a word in a sentence
- the search should be performed when a appropriate button is clicked

```
<!DOCTYPE html>
   <html>
     <head>
       <title>Word Finder</title>
       <script src="https://cdn.tailwindcss.com"></script>
5
     </head>
6
     <body>
       <section class="w-full h-screen flex flex-col justify-center items-center">
         <h1 class="text-pink-400 font-semibold text-3xl text-center mb-2">
9
           Word Finder
10
         </h1>
11
         <div class="bg-slate-100 flex flex-col p-4 gap-1 rounded-lg w-96">
12
           Enter your sentence
13
           <input type="text" id="sentence" class="text-center"/>
14
           Enter the word to search
           <input type="text" id="word" class="text-center text-orange-400"/>
16
           <button
17
             class="p-2 bg-slate-300 hover:bg-slate-200 w-32 self-center rounded-md mt-3

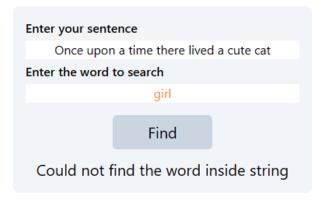
    text-x1"

             onclick=result()
19
           > Find </button>
           21
         </div>
22
       </section>
23
       <script>
24
         function result() {
25
           let sentence = document.getElementById("sentence").value.trim();
26
           let search_word = document.getElementById("word").value.trim();
           let output = document.getElementById("output");
28
           for (let word of sentence.split(" ")) {
29
             if (word == search_word) {
               output.innerHTML = "The word <a class='text-orange-400'>"
31
                 + word +
32
                 "</a> is found in the string";
33
               return;
34
             }
35
36
           output.innerHTML = "Could not find the word inside string";
37
       </script>
39
     </body>
40
   </html>
```

# **Word Finder**



# **Word Finder**



## 9 Prime and Armstrong

### 9.1 Aim

• Write a program to determine whether a number is Armstrong or Prime

```
<!DOCTYPE html>
   <html>
     <head>
3
       <title>Prime or Armstrong?</title>
       <script src="https://cdn.tailwindcss.com"></script>
5
     </head>
6
     <body>
       <section class="w-full h-screen flex flex-col justify-center items-center">
         <h1 class="text-pink-400 font-semibold text-3xl text-center mb-2">
9
           Prime or Armstrong
10
         </h1>
         <div class="bg-slate-100 flex flex-col p-4 gap-1 rounded-lg w-96">
12
           <div class="flex flex-row p-2 gap-1 justify-around">
13
             Enter a number
14
             <input type="number" id="number" class="text-center"/>
           </div>
16
           <div class="flex flex-row p-2 gap-3 justify-center">
17
             <button
               class="p-2 bg-slate-300 hover:bg-slate-200 w-32 rounded-md text-x1"
19
               onclick=is_prime()
20
             > Prime? </button>
21
             <button
22
               class="p-2 bg-slate-300 hover:bg-slate-200 w-32 rounded-md text-x1"
               onclick=is_armstrong()
24
             > Armstrong? </button>
25
           </div>
           27
         </div>
28
       </section>
29
       <script>
30
         let output = document.getElementById("output");
31
         function is_prime() {
           let num = document.getElementById("number").value;
33
           for (let i = 2; i < num/2; i++) {
34
             if (num % i == 0) {
35
               output.innerHTML = num + " is NOT prime";
               return;
37
38
           }
39
           output.innerHTML = "<a class='text-pink-400 font-semibold'>" + num + " is
              PRIME </a>";
41
         function is_armstrong() {
           let num = document.getElementById("number").value;
43
           let str_num = String(num);
44
           let exponent = str_num.length;
45
```

```
let result = 0;
46
            for (let ch of str_num.split("")) {
              result += Number(ch) ** exponent;
48
49
            if (result == num) {
50
              output.innerHTML = "<a class='text-pink-400 font-semibold'>" + num + " is
51
              → ARMSTRONG</a>";
            } else {
              output.innerHTML = num + " is NOT armstrong</a>";
53
54
          }
55
        </script>
      </body>
57
   </html>
```

# **Prime or Armstrong**



# **Prime or Armstrong**



### 10 Fibonacci Series

### 10.1 Aim

• Write a program to display the first n terms of the Fibonacci series

### 10.2 Code

```
<html>
     <head>
2
       <title>Fibonacci Series</title>
3
       <script src="https://cdn.tailwindcss.com"></script>
     </head>
5
     <body>
6
       <section class="w-full h-screen flex flex-col justify-center items-center">
         <h1 class="text-pink-400 font-semibold text-3xl text-center mb-2">
           Fibonacci Series
9
         </h1>
10
         <div class="bg-slate-100 flex flex-col p-3 gap-2 rounded-lg w-96">
           <div class="flex flex-row justify-evenly">
12
             Enter the number of terms
13
             <input class="text-center w-32" type="number" id="number"/>
14
           </div>
           <button
16
             class="p-2 bg-slate-300 hover:bg-slate-200 w-32 self-center rounded-md
17

    text-x1

             onclick=getseries()
18
           > Find </button>
19
           20
         </div>
21
       </section>
22
       <script>
23
         function getseries() {
24
           let output = "";
25
           let number = document.getElementById("number").value;
           for (let i = 0; i < number; i++) {
27
             output += fibo(i) + " ";
28
           }
29
           document.getElementById("output").innerHTML = output;
30
         }
31
         function fibo(num) {
32
           return (num < 2)? num : fibo(num-1) + fibo(num-2);</pre>
         }
34
       </script>
35
     </body>
36
   </html>
```

### 10.3 Output

### Fibonacci Series



## 11 University Login

### 11.1 Aim

- Create a login page
- with fields name and enrollment number
- After submitting information, redirect to a welcome page

### 11.2 Code

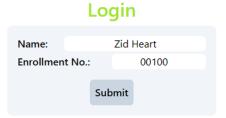
index.html

```
<html>
     <head>
2
       <title>University Login</title>
       <script src="https://cdn.tailwindcss.com"></script>
4
     </head>
5
     <body>
       <section class="w-full h-screen flex flex-col justify-center items-center">
         <h1 class="mb-2 text-3xl text-lime-400 font-semibold">
           Login
         </h1>
         <form
11
           class="bg-slate-100 flex flex-col p-4 gap-1 rounded-lg"
12
           action=login.html
13
           method="get"
15
           <div class="flex flex-row justify-between">
16
             Name:
17
             <input
               class="w-3/4 rounded-md text-center"
19
               name="name"
20
               type="text" required
21
             />
           </div>
23
           <div class="flex flex-row justify-between">
24
             Enrollment No.:
25
26
               class="w-2/4 rounded-md text-center"
27
               type="number" required
28
             />
           </div>
30
           <input
31
             class="bg-slate-300 w-fit self-center p-2 rounded-md mt-3 font-semibold
32
              → cursor-pointer hover:bg-slate-200"
             type="submit" value="Submit"
33
           />
34
         </form>
35
       </section>
     </body>
37
   </html>
38
```

login.html

```
<html>
     <head>
        <title>University Login</title>
3
        <script src="https://cdn.tailwindcss.com"></script>
4
     </head>
6
     <body>
        <section class="w-full h-screen flex flex-col justify-center items-center">
          <h1 class="mb-2 text-6xl text-slate-800 font-semibold">
            Welcome <a class="text-lime-300" id="name"></a>
          </h1>
10
          <h1 class="mb-2 text-xl text-slate-700 font-semibold">
11
            Login Successful
12
          </h1>
        </section>
14
        <script>
15
         let url = window.location.href;
16
         url = url
            .split('?')[1]
18
            // regex for removing + from GET
19
            .split('=')[1].replace(/\+/g, ' ');
20
          document.getElementById("name").innerHTML = url;
        </script>
22
      </body>
23
   </html>
```

### 11.3 Output





Login Successful

### 12 First Vowel

### 12.1 Aim

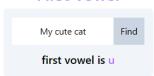
• Write a JavaScript program to find the first vowel in a string

### 12.2 Code

```
<html>
     <head>
2
       <title>First Vowel</title>
3
       <script src="https://cdn.tailwindcss.com"></script>
     </head>
5
     <body>
6
       <section class="w-full h-screen flex flex-col justify-center items-center">
         <h1 class="text-3xl font-semibold text-purple-400 mb-2">First Vowel</h1>
         <div class="bg-slate-100 flex flex-col p-4 gap-1 rounded-lg">
9
           <div class="flex flex-row">
10
             <input
               class="text-center"
12
               placeholder="Enter a String"
13
               id="input"
14
             />
             <button
16
               class="bg-slate-300 hover:bg-slate-200 p-3"
17
               onclick=firstvowel()
             > Find </button>
20
           21
         </div>
22
       </section>
       <script>
24
       function firstvowel() {
25
         let input = document.getElementById("input").value;
         let output = document.getElementById("output");
         let style = "<a class='text-purple-400'>";
28
         for (let ch of input.split("")) {
29
           if ("aeiouAEIOU".includes(ch)) {
30
             output.innerHTML = "first vowel is " + style + ch + "</a>";
31
             return;
32
           }
         }
34
         output.innerHTML = "No vowels found";
35
36
       </script>
     </body>
38
   </html>
39
```

### 12.3 Output

### **First Vowel**



### 13 Basic Calculator

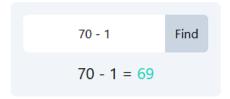
### 13.1 Aim

• Write a JavaScript program implementing a Simple Calculator

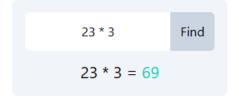
```
<html>
     <head>
2
       <title>Basic Calculator</title>
3
       <script src="https://cdn.tailwindcss.com"></script>
     </head>
5
     <body>
6
       <section class="w-full h-screen flex flex-col justify-center items-center">
         <h1 class="text-3xl font-semibold text-teal-400 mb-2">Calculator</h1>
         <div class="bg-slate-100 flex flex-col p-4 gap-1 rounded-lg">
9
           <div class="flex flex-row rounded-md overflow-hidden">
10
             <input
               class="text-center"
12
               placeholder="Enter Expression"
13
               id="input"
14
             />
             <button
16
               class="bg-slate-300 hover:bg-slate-200 p-3 active:bg-slate-400"
17
               onclick=compute()
             > Find </button>
19
20
           21
         </div>
22
       </section>
       <script>
24
       function compute() {
25
         let input = document.getElementById("input")
26
            .value.trim().split(' ');
         let output = document.getElementById("output");
28
         let style = "<a class='text-teal-400'>";
29
         let result = input[0] + " " + input[1] + " " + input[2] + " = " + style;
30
         if (input.length != 3) { output.innerHTML = "Invalid Expression"; return; }
31
         switch (input[1]) {
           case "+": result += (Number(input[0]) + Number(input[2])); break;
33
           case "-": result += Number(input[0]) - Number(input[2]); break;
34
           case "*": result += Number(input[0]) * Number(input[2]); break;
35
           case "/": result += Number(input[0]) / Number(input[2]); break;
           default: output.innerHTML = "Invalid Expression"; break;
37
38
         output.innerHTML = result + "</a>";
       }
40
       </script>
41
     </body>
42
   </html>
```



# **Calculator**



# **Calculator**



# **Calculator**



## 14 Company Profile Form

### 14.1 Aim

- Create a form for entering A company Profile
- The form should have an update button
- update button should update the profile

```
<!DOCTYPE html>
   <ht.ml>
     <head>
       <title>Company information</title>
4
       <script src="https://cdn.tailwindcss.com"></script>
5
     </head>
     <body>
       <section class="w-full h-screen flex flex-col justify-center items-center">
        <h1 class="text-3xl font-semibold text-purple-400 mb-2">Company Form</h1>
        <div class="flex flex-row gap-8 items-center">
          <div class="bg-slate-100 flex flex-col p-4 gap-1 rounded-md">
            Employee Name
12
            <input
13
              type="text" id="name" value="Ann Rexi"
              class="text-center" required
15
16
            Address
17
              type="text" id="addr" value="Kochi, Kerala"
19
              class="text-center" required
20
21
            Email
23
              type="email" id="email" value="annrexie@gmail.com"
24
              class="text-center" required
25
            />
            <button
27
              class="bg-slate-300 hover:bg-slate-200 active:bg-slate-400 p-3
28

→ cursor-pointer mt-2 rounded-md"

              onclick=update()
            >Update</button>
30
          </div>
31
          <div class="bg-slate-100 flex flex-col p-4 text-2xl h-fit rounded-md">
            34
            35
          </div>
36
        </div>
37
       </section>
38
       <script>
39
        update(); // call once to display initial value
        function update() {
41
          let name = document.getElementById("name").value;
42
          let addr = document.getElementById("addr").value;
43
          let email = document.getElementById("email").value;
          let output = document.getElementsByName("output");
45
          let style = "<a class='text-pink-400 font-semibold'>"
46
```

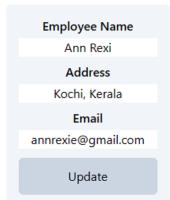
```
output[0].innerHTML = "Employee: " + style + name + "</a>"

output[1].innerHTML = "Address: " + style + addr + "</a>";

output[2].innerHTML = "Email: " + style + email + "</a>";

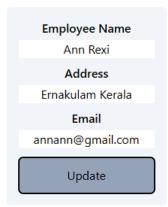
//script>
//script>
//body>
//html>
```

# **Company Form**



Employee: Ann Rexi Address: Kochi, Kerala Email: annrexie@gmail.com

# **Company Form**



Employee: Ann Rexi Address: Ernakulam Kerala Email: annann@gmail.com

### 15 Random Number

### 15.1 Aim

- Write a JavaScript program to perform the following
- validation checks on text and email fields of a form
- Generate a random number when a Button is clicked

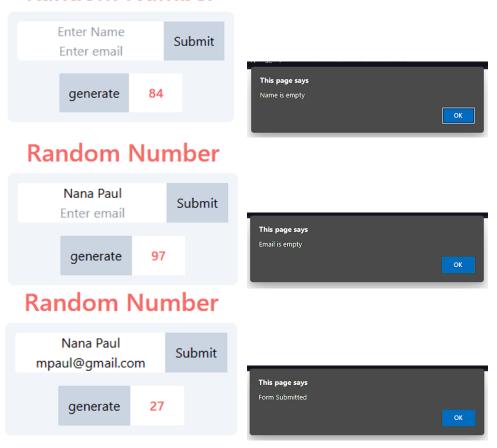
```
<html>
      <head>
2
        <title>Random Number</title>
        <script src="https://cdn.tailwindcss.com"></script>
4
      </head>
5
     <body>
        <section class="w-full h-screen flex flex-col justify-center items-center">
          <h1 class="text-3xl font-semibold text-red-400 mb-2">Random Number</h1>
          <div class="bg-slate-100 flex flex-col p-3 rounded-lg">
            <form class="flex flex-row overflow-hidden rounded-s" onsubmit="validate()">
              <div class="flex flex-col">
                <input
12
                  type="text" placeholder="Enter Name"
13
                  class="text-center" name="name"
                />
15
                <input
16
                  type="email" placeholder="Enter email"
17
                  class="text-center" name="email"
                />
19
              </div>
20
              <input type="submit"</pre>
21
                class="bg-slate-300 hover:bg-slate-200 active:bg-slate-400 p-3
                    cursor-pointer"
              />
23
            </form>
24
            <div class="flex flex-row rounded-sm overflow-hidden w-fit self-center">
26
                class="bg-slate-300 hover:bg-slate-200 active:bg-slate-400 p-3
27

    cursor-pointer"

                onclick=random()
              > generate </button>
29
              30
                class="bg-white flex flex-col justify-center p-3 pl-6 pr-6 text-red-400
                 \hookrightarrow font-semibold"
              > 84 
32
            </div>
33
          </div>
34
        </section>
35
        <script>
36
        document.forms[0].addEventListener("submit", function (e) { e.preventDefault() });
37
        function random() {
          document.getElementById("rand")
39
            .innerHTML = Math.floor(Math.random() * 100)
40
41
       function validate() {
42
          let form = document.forms[0];
43
          if (form["name"].value == "") {
44
```

```
alert("Name is empty")
45
46
          else if (form["email"].value == "") {
            alert("Email is empty")
48
          } else {
49
            alert("Form Submitted")
50
51
52
        </script>
53
      </body>
   </html>
55
```

# **Random Number**



## 16 Company Login page

### 16.1 Aim

- Design a login page of a company
- with feilds name and password
- redirect to the company homepage after clicking login
- the homepage must display details of the company

#### 16.2 Code

index.html

```
<html>
2
       <title>University Login</title>
3
       <script src="https://cdn.tailwindcss.com"></script>
     </head>
     <body class="bg-[url('https://wallpaperaccess.com/full/3480773.jpg')]">
       <section class="w-full h-screen flex flex-col justify-center items-center">
         <form
           class="bg-slate-950 flex flex-col p-4 gap-3 rounded-md text-white
            → bg-opacity-55 w-1/5"
           action=webpage.html
10
           method="get"
11
         >
12
           <h1 class="mb-4 text-3xl text-amber-500 font-semibold text-center">
13
             Login
           </h1>
           <div class="flex flex-row justify-between">
16
             Name:
17
             <input
18
               class="w-3/4 rounded-md text-center bg-transparent border-slate-200
                → border-2"
               name="name"
20
               type="text" required
             />
22
           </div>
23
           <div class="flex flex-row justify-between">
24
             Password:
25
             <input
               class="w-2/4 rounded-md text-center bg-transparent border-slate-200
27
                → border-2"
               type="password" required
             />
29
           </div>
30
           <input
31
             class="w-1/2 self-center p-3 rounded-md mt-3 font-semibold cursor-pointer
              → hover:border-slate-200 border-2 border-transparent"
             type="submit" value="Submit"
33
           />
34
         </form>
       </section>
36
     </body>
37
   </html>
38
```

webpage.html

```
<html>
     <head>
2
       <title>University Login</title>
3
       <script src="https://cdn.tailwindcss.com"></script>
4
     </head>
5
     <body class="bg-[url('https://wallpaperaccess.com/full/3480773.jpg')] bg-fixed flex</pre>

    flex-col pt-10 pb-10 gap-4">

       <h1 class="text-6xl text-slate-50 font-semibold text-center drop-shadow-xl">
         Welcome <a class="text-amber-500" id="name"></a>
       </h1>
       <div class="flex flex-row w-full justify-center">
10
         <div class="bg-slate-950 bg-opacity-50 p-3 pt-10 pb-10 flex flex-col gap-5</pre>
11

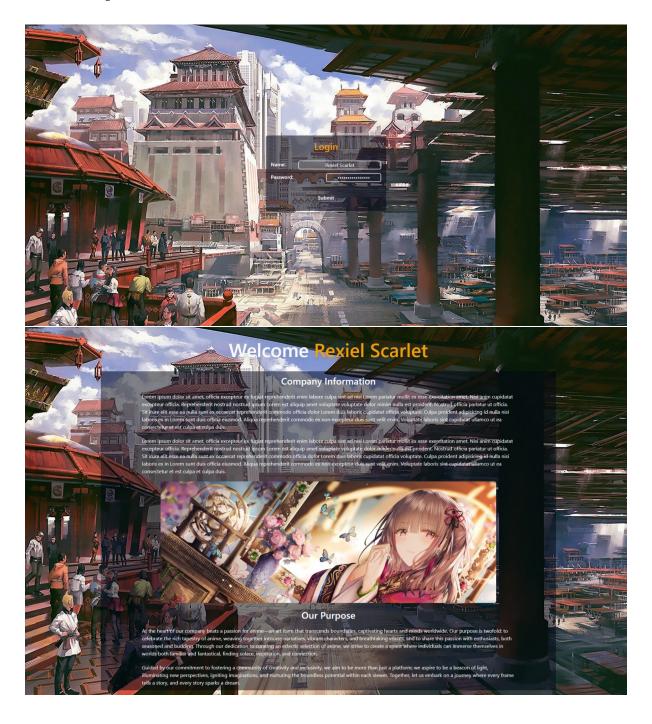
→ text-slate-50 w-3/4 items-center rounded-sm">
           <h1 class="text-3x1 font-semibold"> Company Information </h1>
12
           p class="w-5/6">
13
             Lorem ipsum dolor sit amet, officia excepteur ex fugiat reprehenderit enim
14
              \hookrightarrow labore culpa sint ad nisi Lorem pariatur
             mollit ex esse exercitation amet. Nisi anim cupidatat excepteur officia.
15
              \hookrightarrow Reprehenderit nostrud nostrud ipsum Lorem est
             aliquip amet voluptate voluptate dolor minim nulla est proident. Nostrud
              \hookrightarrow officia pariatur ut officia. Sit irure elit
             esse ea nulla sunt ex occaecat reprehenderit commodo officia dolor Lorem
              → duis laboris cupidatat officia voluptate. Culpa
             proident adipisicing id nulla nisi laboris ex in Lorem sunt duis officia
              \rightarrow eiusmod. Aliqua reprehenderit commodo ex non
             excepteur duis sunt velit enim. Voluptate laboris sint cupidatat ullamco ut
19
                 ea consectetur et est culpa et culpa duis.
           20
           p class="w-5/6">
21
             Lorem ipsum dolor sit amet, officia excepteur ex fugiat reprehenderit enim
22
              \hookrightarrow labore culpa sint ad nisi Lorem pariatur
             mollit ex esse exercitation amet. Nisi anim cupidatat excepteur officia.
23
              \hookrightarrow Reprehenderit nostrud nostrud ipsum Lorem est
             aliquip amet voluptate voluptate dolor minim nulla est proident. Nostrud
24
              esse ea nulla sunt ex occaecat reprehenderit commodo officia dolor Lorem
25
              proident adipisicing id nulla nisi laboris ex in Lorem sunt duis officia
              \rightarrow eiusmod. Aliqua reprehenderit commodo ex non
             excepteur duis sunt velit enim. Voluptate laboris sint cupidatat ullamco ut
                 ea consectetur et est culpa et culpa duis.
           28
           <div
29
             class="bg-[url('https://wallpapercave.com/wp/wp6257941.jpg')] bg-cover h-96
30
              → rounded-md w-3/4 self-center"
           ></div>
31
           <h1 class="text-3xl text-center font-semibold"> Our Purpose </h1>
32
           p class="w-5/6">
33
             At the heart of our company beats a passion for anime an art form that
              → transcends boundaries, captivating hearts and
             minds worldwide. Our purpose is twofold: to celebrate the rich tapestry of
35
              \rightarrow anime, weaving together intricate narratives,
             vibrant characters, and breathtaking visuals, and to share this passion with
36

→ enthusiasts, both seasoned and budding.
```

```
Through our dedication to curating an eclectic selection of anime, we strive
37
              immerse themselves in worlds both familiar and fantastical, finding solace,
              \hookrightarrow inspiration, and connection.
            39
            p class="w-5/6">
             Guided by our commitment to fostering a community of creativity and

→ inclusivity, we aim to be more than just a platform;

             we aspire to be a beacon of light, illuminating new perspectives, igniting
42
              _{\ensuremath{\rightarrow}} imaginations, and nurturing the boundless
             potential within each viewer. Together, let us embark on a journey where
43
              \hookrightarrow every frame tells a story, and every story
             sparks a dream.
44
            45
         </div>
46
        </div>
47
        <script>
48
         let url = window.location.href;
         url = url
50
            .split('?')[1]
51
            // regex for removing + from GET
            .split('=')[1].replace(/\+/g, ' ');
         document.getElementById("name").innerHTML = String(url);
54
        </script>
55
     </body>
56
   </html>
```



## 17 Registration Form

### 17.1 Aim

- Write a Javascript program to validate a form with the following fields
- Name, Email, Country code (text)
- Zip Code (Drop Down)

```
<html>
      <head>
2
        <title>Registration Form</title>
        <script src="https://cdn.tailwindcss.com"></script>
4
      </head>
5
      <body>
        <section class="w-full h-screen flex flex-col justify-center items-center">
          <h1 class="text-3xl text-blue-400 font-semibold mb-2">Register</h1>
          <form
            name="registration"
            onsubmit=validate()
            class="bg-white flex flex-col p-10 rounded-lg gap-8 font-semibold
12
                drop-shadow-xl *:flex *:flex-row *:justify-between *:gap-10
                *:items-center"
          >
13
            <div>
14
              Name
              <input type="text"</pre>
                name="name"
17
                class="text-center font-normal focus:outline-none border-b-2
18
                    border-blue-300 focus:border-blue-400 drop-shadow-md bg-transparent"
              />
            </div>
20
            <div>
21
              Zip Code
              <select class="font-normal bg-blue-400 rounded-md px-2 py-1 text-white</pre>
23
               → focus:outline-none">
                <option>2018</option>
24
                <option>8123</option>
                <option>1243</option>
26
              </select>
27
            </div>
            <div>
29
              Email id
30
              <input type="email"</pre>
31
                name="email"
32
                class="text-center font-normal focus:outline-none border-b-2
33
                    border-blue-300 focus:border-blue-400 drop-shadow-md bg-transparent"
              />
34
            </div>
            <div>
36
              Country code
37
              <input type="text"</pre>
38
                name="country"
                class="text-center font-normal focus:outline-none border-b-2
40
                 → border-blue-300 focus:border-blue-400 drop-shadow-md bg-transparent"
```

```
/>
41
            </div>
42
            <input type="submit"</pre>
              class="bg-blue-400 hover:bg-blue-500 w-[100px] text p-3 rounded-md
44

→ cursor-pointer text-white text-center font-semibold drop-shadow-md"

            />
45
          </form>
46
        </section>
47
        <script>
48
          document.getElementsByName("registration")[0].addEventListener("submit",

    function (e) { e.preventDefault() });

          function validate() {
50
            let form = document.forms["registration"]
51
            if (form["name"].value == "") {
52
              alert("name is empty")
53
            } else if (form["email"].value == "") {
54
              alert("email is empty")
            } else if (form["country"].value == "") {
56
              alert("country code is empty")
57
            } else {
              alert("Form Submitted Successfully")
60
          }
61
        </script>
62
      </body>
63
   </html>
64
```

# Register

