Bahria University,

Karachi Campus



LAB EXPERIMENT NO.

**06**

LIST OF TASKS

|  |  |
| --- | --- |
| TASK NO | OBJECTIVE |
| 1 | **Create a function that calculates the power of 100 of a number entered as a parameter** |
| 2 | **Write a JavaScript function that takes an array of numbers and a target number. The function should find two different numbers in the array that, when added together, give the target number. For example: answer ([1,2,3], 4) should return [1,3].** |
| 3 | **Write a JavaScript function and ask user to enter the age, this function aim to show a message that a person can drive, if the age is greater than or equal to 18 otherwise can’t drive, by using a ternary operator instead of the**[**if-else**](https://www.javascripttutorial.net/javascript-if-else/)**statement.** |
| 4 | **Using switch in JavaScript, write a program to create any four browsers’ cases of your choice and generate alert (“I am using xyz browser) if user select any one of them.** |
| 5 | **Write a JavaScript arrow function named calculate Supply that: a. takes 2 arguments: age, amount per day. b. calculates the amount consumed for rest of the life (based on a constant max age). c. Outputs the result to the screen like so: "You will need NN to last you until the ripe old age of X"** |
| 6 | **Create an object to hold information on your favorite recipe. It should have properties for title (a string), servings (a number), and ingredients (an array of strings** |
| 7 | **Write a JavaScript program to get the below object to go from: let obj = {  my: 'name', is: 'Rudolf', the: 'raindeer'}** |
| 8 | **Design a registration form using Bootstrap and validate it using JavaScript** |

**Task 01: Create a function that calculates the power of 100 of a number entered as a parameter**

**Solution:**

**Index.html**

 <main>

        <nav>

            <ul class="navi" style="list-style: none;display: flex;justify-content: space-around;">

                <a href="task1.html" style="text-decoration:none">

                    <li>Calculate The Power Of 100</li>

                </a>

                <a href="task2.html" style="text-decoration:none">

                    <li>Two Number In Array Get The Added Array</li>

                </a>

                <a href="task3.html" style="text-decoration:none">

                    <li>Person Can Drive</li>

                </a>

                <a href="task4.html" style="text-decoration:none">

                    <li>Four browsers</li>

                </a>

               </ul>

            <ul class="navi" style="list-style: none;display: flex;justify-content: space-around;">

                <a href="task5.html" style="text-decoration:none">

                    <li>Arrow function</li>

                </a>

                <a href="task6.html" style="text-decoration:none">

                    <li>Object Of favorite recipe</li>

                </a>

                <a href="task7.html" style="text-decoration:none">

                    <li>Javascript program</li>

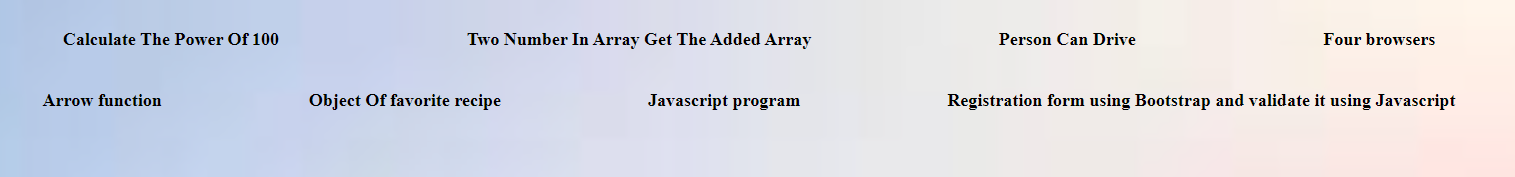
                </a>

                <a href="task8.html" style="text-decoration:none">

                    <li>Registration form using Bootstrap and validate it using Javascript </li>

                </a></ul></nav>

    </main>



**Task1.html**

<main>

        <section>

            <div class="main">

                <div class="child">

                    <div class="children">

                        <h1 class="heading">

                            Calculate The Power Of 100

                        </h1>

                    </div>

                    <div class="children">

                        <label for="" class="same" style="color: white;font-Size: larger"><b>Power</b></label>

                        <input type="number" id="input" class="same" placeholder="Enter Power Number">

                        <label for="" class="same" style="color: white;font-Size: larger"><b>Power of 100</b></label>

                        <input type="number" id="input2" class="" placeholder="Result Power of Entered Number">

                        <button id="btn" class="same" onclick="calculatepower()">Calculate</button>

                    </div>

                  </div></div>

        </section>

    </main>

**Task1.js**

var power=document.getElementById('input');

var volume=document.getElementById('input2');

var btn=document.getElementById('btn');

function calculatepower()

{

    if(power.value.length>0)

    {

        const result=Math.pow(power.value,100);

        volume.value=result;

        power.value='';

    }}

**Output:**

**Graphical user interface, application

Description automatically generated**

**Graphical user interface, application

Description automatically generated**

**Task 2: Write a JavaScript function that takes an array of numbers and a target number. The function should find two different numbers in the array that, when added together, give the target number. For example: answer ([1,2,3], 4) should return [1,3].**

**Solution:**

**Task2.html**

<main>

        <section>

            <div class="main">

                <div class="child">

                    <div class="children">

                        <h1 class="heading">

                            Two Number In Array Get The Added Array

                        </h1>

                    </div>

                    <div class="children">

                        <label for="" class="same" style="color: white;font-Size: larger"><b>First Number</b></label>

                        <input type="number" id="input" class="same" placeholder="Enter First  Number">

                        <label for="" class="same" style="color: white;font-Size: larger"><b>Second Number</b></label>

                        <input type="number" id="input2" class="same" placeholder="Enter Second Number">

                        <button id="btn" class="same" onclick="addedarray()">Add</button>

                        <textarea name="text" id="input3" cols="2" rows="3"></textarea>

                    </div>

               </div></div>

        </section>

    </main>

**Task2.js**

var num1=document.getElementById('input');

var num2=document.getElementById('input2');

var result=document.getElementById('input3');

function addedarray(){

const numbers = [2,4,6,8,10,12];

result.value=" ";

if(num1.value.length>0 && num2.value.length>0)

{

    const sum = parseInt (num1.value) + parseInt ( num2.value) ;

    for (var i= 0; i < numbers.length; i++) {

        if (numbers[i]===sum) {

            result.value= "Sum Of 2 Input Match Target => " + numbers[i] + " Index At " + i;

        break;

        }

        else{

            result.value="Sum Of 2 Input Not Match Target In An Array"

        }

        }}

num1.value=" ";

num2.value=" ";}

**Output:**

**Graphical user interface, application

Description automatically generated**

**Graphical user interface, application

Description automatically generated**

**Task 3: Write a JavaScript function and ask user to enter the age, this function aim to show a message that a person can drive, if the age is greater than or equal to 18 otherwise can’t drive, by using a ternary operator instead of the**[**if-else**](https://www.javascripttutorial.net/javascript-if-else/)**statement.**

**Solution:**

**Task3.html**

<main>

        <section>

            <div class="main">

                <div class="child">

                    <div class="children">

                        <h1 class="heading">

                            Person can Drive?

                        </h1>

                    </div>

                    <div class="children">

                        <label for="" class="same" style="color: white;font-Size: larger"><b>Age</b></label>

                        <input type="number" id="input" class="same" placeholder="Enter Age In Number">

                        <button id="btn" class="same" onclick="checkage()">Valid Age</button>

                    </div>

                </div></div>

        </section>

    </main>

**Task3.js**

var age=document.getElementById('input');

function checkage()

{

    if(age.value.length>0)

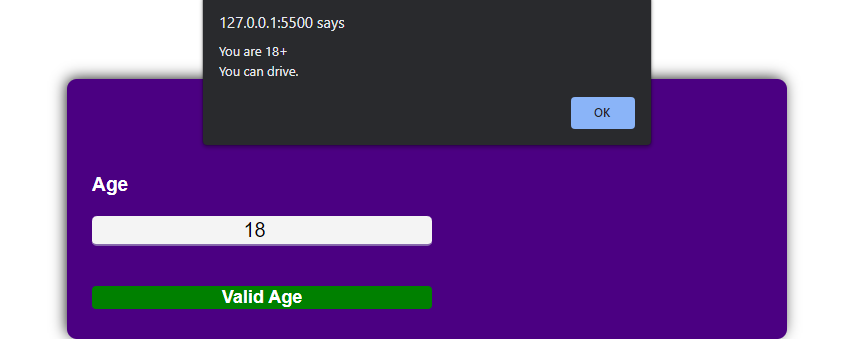
    {

        message = age.value >= 18 ? 'You are ' + age.value + '+ \nYou can drive.' : 'You are under Age \nYou cannot drive.';

        alert(message);

        age.value="";}}

**Output:**

****

**Graphical user interface, application

Description automatically generated**

**Task 4: Using switch in JavaScript, write a program to create any four browsers’ cases of your choice and generate alert (“I am using xyz browser) if user select any one of them.**

**Solution:**

**Task4.html**

 <main>

        <section>

            <div class="main">

                <div class="child">

                    <div class="children">

                        <h1 class="heading">

                            Browser Cases

                        </h1>

                    </div>

                    <div class="children">

                        <label for="" class="same" style="color: white;font-Size: larger"><b>Select Option</b></label>

                        <ol class="task4ol">

                            <li>Chrome</li>

                            <li>Opera</li>

                            <li>Mozilla</li>

                            <li>Edge</li>

                        </ol>

                        <input style="margin-top: 25px" type="number" id="input" class="same" placeholder="Enter Number">

                        <button id="btn" class="same" onclick="cases()">Enter</button>

                    </div>

                   </div></div>

        </section>

    </main>

**Task4.js**

var check=document.getElementById('input');

function cases()

{

    if(check.value.length>0)

    {

        switch (check.value) {

            case "1":

             alert("I am Using Chrome")

              break;

            case "2":

                alert("I am Using Opera")

              break;

            case "3":

                alert("I am Using Mozilla")

              break;

            case "4":

                alert("I am Using Edge")

              break;

            default:

            alert("Invalid Input")

            break;

          }

        check.value='';}}

**Output:**

**Graphical user interface, application

Description automatically generated**

**Graphical user interface, application, Teams

Description automatically generated**

**Task 5: Write a JavaScript arrow function named calculate Supply that:  
a. takes 2 arguments: age, amount per day.  
b. calculates the amount consumed for rest of the life (based on a constant max age).  
c. Outputs the result to the screen like so: "You will need NN to last you until the ripe old age of X"**

**Solution:**

**Task5.html**

<main>

        <section>

            <div class="main">

                <div class="child">

                    <div class="children">

                        <h1 class="heading">

                            Amount consumed For Life

                        </h1>

                    </div>

                    <div class="children">

                        <label for="" class="same" style="color: white;font-Size: larger"><b>Age</b></label>

                        <input type="number" id="input" class="same" placeholder="Enter Age">

                        <label for="" class="same" style="color: white;font-Size: larger"><b>Enter Amount</b></label>

                        <input type="number" id="input2" class="same" placeholder="Enter Amount Per day">

                        <button id="btn" class="same" onclick="consuming()">Calculate</button>

                    </div>

                </div></div>

        </section>

    </main>

**Task5.js**

var age=document.getElementById('input');

var amount=document.getElementById('input2');

function consuming(){

    if(age.value.length>0 && amount.value.length>0)

        {

            consumed(age.value,amount.value);

        }

        age.value='';

        amount.value='';

}

var consumed=(age,amount)=>

    {

           var mxage=60;

           var consume=mxage\*12\*30\*amount;

           var current=age\*12\*30\*amount;

           alert(`Current Consumed Amount Is ${current} \nYou Need ${consume-current} To Survive Until The Old Age Of ${mxage}`)}

**Output:**

**Graphical user interface, application, Teams

Description automatically generated**

**Task 6: Create an object to hold information on your favorite recipe. It should have properties for title (a string), servings (a number), and ingredients (an array of strings**

**Solution:**

**Task6.html**

 <main>

        <section>

            <div class="main">

                <div class="child">

                    <div class="children">

                        <h1 class="heading">

                            Information on your favorite recipe.

                        </h1>

                    </div>

                    <div class="children">

                        <textarea name="text" id="input" class="same" id="" cols="10" rows="5" readonly>

                        </textarea>

                        <button id="btn" class="same" onclick="check()">Check</button>

                    </div></div></div>

        </section></main>

**Task6.js**

var txtarea=document.getElementById('input');

var recipe = {

    title: "Tea",

    servings : 5,

    ingredients:["Sugar","Tea","Water","Milk","Elachi"],

    details : function() {

        console.log("Title: "+this.title)

        console.log("Serve: "+this.servings)

        console.log("Ingredients: "+this.ingredients)

        return "Title: "+this.title + "\nServe: " + this.servings+"\nIngredients: "+ this.ingredients;

    }};

function check(){

        txtarea.value=recipe.details();}

**Output:**

**Graphical user interface, text, application

Description automatically generated**

**Task 7: Write a JavaScript program to get the below object to go from:  
let obj = {  
 my: 'name',   
is: 'Rudolf',   
the: 'raindeer'}**

**Solution:  
Task7.html**

 <main>

        <section>

            <div class="main">

                <div class="child">

                    <div class="children">

                        <h1 class="heading">

                            Javascript program

                        </h1>

                    </div>

                    <div class="children">

                        <textarea name="text" id="input" class="same" id="" cols="30" rows="5" readonly>

                        </textarea>

                        <button id="btn" class="same" onclick="check()">Check</button>

                    </div></div></div></section>

    </main>

**Task7.js**

var txtarea=document.getElementById('input');

let obj = {

    my: 'name',

    is: 'Rudolf',

    the: 'raindeer'

  }

  // to this:

  'my name is Rudolf the raindeer'

function check(){

       txtarea.value=`my ${obj.my} is ${obj.is} the ${obj.the}`;    }

**Output:**

**Graphical user interface, text, application

Description automatically generated**

**Task 8: Design a registration form using Bootstrap and validate it using JavaScript**

**Solution:**

**Task8.html**

 <main>

    <section>

      <div class="main">

        <div class="child">

          <div class="children">

            <h1 class="heading">

              Registration Form

            </h1>

          </div>

          <form method="post" name="reg\_form" onsubmit="validateform()">

            <div style="margin: 50px;">

              <div class="form-group">

                <label for="fullname" style="color: white;font-Size: larger">Full Name</label>

                <input type="text" class="form-control " name="fullname" placeholder="Full Name">

              </div>

              <div class="form-group">

                <label for="email" style="color: white;font-Size: larger">Email Address</label>

                <input type="email" class="form-control" name="email" placeholder="Email Address">

              </div>

              <div class="form-group">

                <label for="phone" style="color: white;font-Size: larger">Phone(enter only 10 digit numbers)</label>

                <input type="number" class="form-control" name="ph" placeholder="Phone Number">

              </div>

              <div class="form-group">

                <label for="pwd" style="color: white;font-Size: larger">Password</label>

                <input type="password" class="form-control" name="pwd" placeholder="Password">

              </div>

              <div class="form-group">

                <label for="Confirmpwd" style="color: white;font-Size: larger">Confirm Password</label>

                <input type="password" class="form-control" name="Confirmpwd" placeholder=" Confirm Password">

              </div>

              <div class="col">

                <button type="submit" class="btn btn-primary mb-2" name="submit" value="Register">Register</button>

              </div>

            </div></form></div></div>

    </section>

  </main>

**Task8.js**

function validateform(){

    var fullname=document.reg\_form.fullname.value;

    var email=document.reg\_form.email.value;

    var ph=document.reg\_form.ph.value;

    var pwd=document.reg\_form.pwd.value;

    var Confirmpwd=document.reg\_form.Confirmpwd.value;

    if (fullname==""){

      alert("Please Enter Full Name.");

       return false;

    }

    else if (email==null || email==""){

      alert("Please Enter Email Address.");

      return false;

    }

          else if(ph.length>11){

  alert("Phone Number Greater Than 12")

  }

    else if(pwd==null || pwd==""){

      alert("Please Enter Password");

      return false;

      }

      {if(pwd==Confirmpwd){

      return true;

  }else{alert(" Password Must Be Same..! ");return false;}}}

**Output:**

**Graphical user interface, application

Description automatically generated**

**Graphical user interface, application, Teams

Description automatically generated**