VRINDA GAUR

2055991580

BTECH IT

FED Assignment-1

Q1. Design a web page to take input of a candidate's profile using a form. Convert the data in

a properly designed portfolio. Validations and drop down should be proper. Populate

Country with state and district, you may limit it to India but all the states and districts

should be there in alphabetic order. Use CSS and Java script where required.

Validations:

Mobile number (no special character, should start with 6 or more, length should be 10)

E-mail ID (should have . and @, cannot have more than on @, @ should come before last

".")

First name and last name are a must

Skills should have values related with B.Tech IT only.

Zip/Pin code should be of 6 characters

Profile should have your image, size of image cannot be over 400 KB

❖ HTML Code:-

```
<!DOCTYPE html>
<html>
    <head>
        <title>
            assignment_question_1
        </title>
        <link rel="stylesheet" type="text/css" href="q1.css">
    </head>
<body>
    <div class="container">
            <form id="profile-form" action="#">
            <h2 id="heading">Candidate Profile Form</h2>
```

```html
            <div class="form-group">
                <label for="first-name">First Name:</label>
                <input type="text" id="first-name" name="first-name">
            </div>
            <div class="form-group">
                <label for="middle-name">Middle Name:</label>
                <input type="text" id="middle-name" name="middle-name">
            </div>
            <div class="form-group">
                <label for="last-name">Last Name:</label>
                <input type="text" id="last-name" name="last-name">
            </div>
            <div class="form-group">
                <label for="email">Email:</label>
                <input type="email" id="email" name="email">
            </div>
            <div class="form-group">
                <label for="phone">Mobile:</label>
                <input type="tel" id="phone" name="phone">
            </div>
        <div class="form-group">
                <label for="country">Country:</label>
            <select id="country" name="country" required>
                <option value="">Select a country</option>
                <option value="India">India</option>
            </select>
        </div>
        <div class="form-group">
            <label for="state">State:</label>
            <select id="state" name="state" required>
                <option value="">Select a state</option>
            </select>
        </div>
        <div class="form-group">
            <label for="district">District:</label>
            <select id="district" name="district" required>
                <option value="">Select a district</option>
            </select>
        </div>
            <div class="form-group">
                <label for="pincode">Pincode:</label>
                <input type="text" id="pincode" name="pincode">
            </div>
            <div class="form-group">
                <label for="skills">Skills:</label>
                <input type="text" id="skills" name="skills" required>
```

```
                        </div>
                        <div class="form-group">
                            <label for="photo">Upload Photo:</label>
                            <input type="file" id="fileInput" required>
                        </div>
                        <button type="submit">Submit</button>
                </form>
            </div>
        <div id="portfolio">
        </div>


<script src="q1.js"> </script>
</body>
</html>
```

❖ **CSS Code:-**

```css
body {
    font-family: Arial, sans-serif;
    background-color: grey;
  }

  .form-group {
    margin-bottom: 2px;
  }

  label {
    display: block;
    margin-bottom: 5px;
  }

  form {
    text-align: center;
  }

  .container {
    text-align: center;
    margin: 0 auto;
    padding: 10px;
    border: 2px solid black;
    border-radius: 6px;
    width: 50%;
    background-color: white;
  }

  input[type="text"],
```

```css
input[type="email"],
input[type="tel"],
select {
  padding: 8px;
  border: 1px solid #ccc;
  border-radius: 4px;
  box-sizing: border-box;
  width: 70%;
  font-size: 16px;
}

button[type="submit"] {
  margin-top: 10px;
  margin-top: 10px;
  background-color: #4CAF50;
  color: white;
  padding: 8px 16px;
  border: none;
  border-radius: 4px;
  cursor: pointer;
  font-size: 16px;
}

button:hover {
  background-color: #45a049;
}

#portfolio {
  margin: 0 auto;
  display: none;
  border: 2px solid black;
  border-radius: 6px;
  padding: 10px;
  background-color: white;
  width: 50%;
}

h2 {
  color: cadetblue;
}

#myemail {
  color: blue;
}

img {
  padding: 10px;
  float: right;
```

```css
    margin-left: 10px;
    margin-right: 80px;
    height: 150px;
    width: 140px;
    border-radius: 50%;
  }
```

❖ **JS Code:-**

```javascript
function validateForm()
    {
      var firstName = document.getElementById('first-name').value.trim();
      var middleName = document.getElementById('middle-name').value.trim();
      var lastName = document.getElementById('last-name').value.trim();
      var email = document.getElementById('email').value.trim();
      var phone = document.getElementById('phone').value.trim();
      var country = document.getElementById('country').value.trim();
      var state = document.getElementById('state').value.trim();
      var district = document.getElementById('district').value.trim();
      var pincode = document.getElementById('pincode').value.trim();
      var skills = document.getElementById('skills').value.trim();

      if (firstName === '')
      {
        alert('First name is required');
        return false;
      }

      if (lastName === '')
      {
        alert('Last name is required');
        return false;
      }

      if(email === ''){
        alert("Email is required");
        return false;
      }

      if(email.indexOf('@') == -1 || email.lastIndexOf('.') == -1){
        alert("Email is not valid");
        return false;
      }

      if(email.indexOf('@') > email.lastIndexOf('.')){
        alert("Email is not valid");
```

```javascript
      return false;
    }

    if(phone[0]<=5 || phone.length != 10){
      alert('Phone is Not Valid')
      return false;
    }

    if(pincode.length != 6){
      alert('Pincode should be 6 digits');
      return false;
    }
    return true;
  }
  const countryDropdown = document.getElementById("country");
  const stateDropdown = document.getElementById("state");
  const districtDropdown = document.getElementById("district");

  const statesByCountry = {
    "India": [
    "Andaman and Nicobar","Andhra Pradesh","Arunachal
Pradesh","Assam","Bihar",
    "Chandigarh","Chhattisgarh","Dadra Nagar Haveli", "Daman Diu","Delhi",
    "Goa","Gujarat","Haryana","Himachal Pradesh","Jammu and
Kashmir","Jharkhand","Karnataka",
    "Kerala","Ladakh","Lakshadweep","Madhya
Pradesh","Maharashtra","Manipur","Meghalaya",
    "Mizoram","Nagaland","Odisha","Puducherry","Punjab","Rajasthan",
    "Sikkim","Tamil Nadu","Telangana","Tripura","Uttar
Pradesh","Uttarakhand","West Bengal"

    ]
  };

  const districtByState = {
    "Andaman and Nicobar": [
    "Nicobar","North Middle Andaman","South Andaman"
    ],
    "Andhra Pradesh": [
    "Anantapur","Chittoor","East Godavari","Alluri Sitarama Raju",
    "Anakapalli","Annamaya","Bapatla","Eluru","Guntur","Kadapa","Kakinada
",
    "Konaseema","Krishna","Kurnool","Manyam","N T Rama
Rao","Nandyal","Nellore",
    "Palnadu","Prakasam","Sri Balaji","Sri Satya
Sai","Srikakulam","Visakhapatnam",
    "Vizianagaram","West Godavari"
    ],
```

```
        "Arunachal Pradesh": [
        "Anjaw","Changlang","Dibang Valley","East Kameng","East
Siang","Itanagar Capital Complex",
        "Kamle","Kra Daadi","Kurung Kumey","Lepa
Rada","Lohit","Longding","Lower Dibang Valley",
        "Lower Siang","Lower Subansiri","Namsai","Pakke Kessang","Papum
Pare","Shi Yomi",
        "Siang","Tawang","Tirap","Upper Dibang Valley","Upper Siang","Upper
Subansiri","West Kameng",
        "West Siang"
        ],
        "Assam": [

"Baksa","Barpeta","Biswanath","Bongaigaon","Cachar","Charaideo","Chirang","Dar
rang",
        "Dhemaji","Dhubri","Dibrugarh","Dima
Hasao","Goalpara","Golaghat","Hailakandi","Hojai",
        "Jorhat","Kamrup","Kamrup Metropolitan","Karbi
Anglong","Karimganj","Kokrajhar",

"Lakhimpur","Majuli","Morigaon","Nagaon","Nalbari","Sivasagar","Sonitpur","Sou
th Salmara-Mankachar",
        "Tinsukia","Udalguri","West Karbi Anglong"
        ],
        "Bihar": [

"Araria","Arwal","Aurangabad","Banka","Begusarai","Bhagalpur","Bhojpur","Buxar
",
        "Darbhanga","East
Champaran","Gaya","Gopalganj","Jamui","Jehanabad","Kaimur",

"Katihar","Khagaria","Kishanganj","Lakhisarai","Madhepura","Madhubani","Munger
",

"Muzaffarpur","Nalanda","Nawada","Patna","Purnia","Rohtas","Saharsa","Samastip
ur",

"Saran","Sheikhpura","Sheohar","Sitamarhi","Siwan","Supaul","Vaishali","West
Champaran"
        ],
        "Chandigarh": [
        "Chandigarh"
        ],
        "Chhattisgarh": [
        "Balod","Baloda
Bazar","Balrampur","Bastar","Bemetara","Bijapur","Bilaspur",
        "Dantewada","Dhamtari","Durg","Gariaband","Gaurella Pendra
Marwahi","Janjgir-Champa",
```

```
"Jashpur","Kabirdham","Kanker","Kondagaon","Korba","Koriya","Mahasamund","Mung
eli",

"Narayanpur","Raigarh","Raipur","Rajnandgaon","Sukma","Surajpur","Surguja"
        ],
        "Dadra Nagar Haveli": [
        "Dadra Nagar Haveli"
        ],
        "Daman Diu": [
        "Daman","Diu"
        ],
        "Delhi": [
        "Central Delhi","East Delhi","New Delhi","North Delhi","North East
Delhi",
        "North West Delhi","Shahdara","South Delhi","South East Delhi","South
West Delhi",
        "West Delhi"
        ],
        "Goa": [
        "North Goa","South Goa"
        ],
        "Gujarat": [

"Ahmedabad","Amreli","Anand","Aravalli","Banaskantha","Bharuch","Bhavnagar",
        "Botad","Chhota Udepur","Dahod","Dang","Devbhoomi
Dwarka","Gandhinagar",
        "Gir
Somnath","Jamnagar","Junagadh","Kheda","Kutch","Mahisagar","Mehsana",
        "Morbi","Narmada","Navsari","Panchmahal","Patan","Porbandar","Rajkot",
        "Sabarkantha","Surat","Surendranagar","Tapi","Vadodara","Valsad"
        ],
        "Haryana": [
        "Ambala","Bhiwani","Charkhi Dadri","Faridabad","Fatehabad","Gurugram",

"Hisar","Jhajjar","Jind","Kaithal","Karnal","Kurukshetra","Mahendragarh",
        "Nuh","Palwal","Panchkula","Panipat","Rewari","Rohtak","Sirsa",
        "Sonipat","Yamunanagar"
        ],
        "Himachal Pradesh": [
        "Bilaspur","Chamba","Hamirpur","Kangra","Kinnaur","Kullu","Lahaul and
Spiti",
        "Mandi","Shimla","Sirmaur","Solan","Una"
        ],
        "Jammu and Kashmir": [

"Anantnag","Bandipore","Baramulla","Budgam","Doda","Ganderbal","Jammu",
        "Kathua","Kishtwar","Kulgam","Kupwara","Poonch","Pulwama","Rajouri",
```

```
        "Ramban","Reasi","Samba","Shopian","Srinagar","Udhampur"
    ],
    "Jharkhand": [
    "Bokaro","Chatra","Deoghar","Dhanbad","Dumka","East Singhbhum",
    "Garhwa","Giridih","Godda","Gumla","Hazaribagh","Jamtara","Khunti",
    "Koderma","Latehar","Lohardaga","Pakur","Palamu","Ramgarh",
    "Ranchi","Sahibganj","Seraikela Kharsawan","Simdega","West Singhbhum"
    ],
    "Karnataka": [
    "Bagalkot","Bangalore Rural","Bangalore Urban","Belgaum","Bellary",
    "Bidar","Bijapur","Chamarajanagar","Chikkaballapura","Chikmagalur",
    "Chitradurga","Dakshina Kannada","Davangere","Dharwad","Gadag",
    "Gulbarga","Hassan","Haveri","Kodagu","Kolar","Koppal","Mandya",
    "Mysore","Raichur","Ramanagara","Shimoga","Tumkur","Udupi","Uttara
Kannada",
    "Vijayapura","Yadgir"
    ],
    "Kerala": [

"Alappuzha","Ernakulam","Idukki","Kannur","Kasaragod","Kollam","Kottayam",

"Kozhikode","Malappuram","Palakkad","Pathanamthitta","Thrissur","Thiruvanantha
puram",
    "Wayanad"
    ],
    "Ladakh": [
    "Kargil","Leh"
    ],
    "Lakshadweep": [

"Agatti","Amini","Androth","Bithra","Chethlath","Kavaratti","Kadmat","Kalpeni"
,
    "Kilthan","Minicoy"
    ],
    "Madhya Pradesh": [
    "Alirajpur","Anuppur","Ashok Nagar","Balaghat","Barwani","Betul",
    "Bhind","Bhopal","Burhanpur","Chhatarpur","Chhindwara","Damoh",

"Datia","Dewas","Dhar","Dindori","Guna","Gwalior","Harda","Hoshangabad",
    "Indore","Jabalpur","Jhabua","Katni","Khandwa","Khargone","Mandla",

"Mandsaur","Morena","Narsinghpur","Neemuch","Panna","Raisen","Rajgarh",
    "Ratlam","Rewa","Sagar","Satna","Sehore","Seoni","Shahdol","Shajapur",

"Sheopur","Shivpuri","Sidhi","Singrauli","Tikamgarh","Ujjain","Umaria",
    "Vidisha"
    ],
    "Maharashtra": [
```

```
"Ahmednagar","Akola","Amravati","Aurangabad","Beed","Bhandara","Buldhana",

"Chandrapur","Dhule","Gadchiroli","Gondia","Hingoli","Jalgaon","Jalna",
        "Kolhapur","Latur","Mumbai City","Mumbai Suburban","Nagpur","Nanded",
        "Nandurbar","Nashik","Osmanabad","Palghar","Parbhani","Pune","Raigad",

"Ratnagiri","Sangli","Satara","Sindhudurg","Solapur","Thane","Wardha","Washim"
,
        "Yavatmal"
        ],
        "Manipur": [
        "Bishnupur","Chandel","Churachandpur","Imphal East","Imphal
West","Jiribam",

"Kakching","Kamjong","Kangpokpi","Noney","Pherzawl","Senapati","Tamenglong",
        "Tengnoupal","Thoubal","Ukhrul"
        ],
        "Meghalaya": [
        "East Garo Hills","East Jaintia Hills","East Khasi Hills","North Garo
Hills",
        "Ri Bhoi","South Garo Hills","South West Garo Hills","South West Khasi
Hills",
        "West Garo Hills","West Jaintia Hills","West Khasi Hills"
        ],
        "Mizoram": [
        "Aizawl","Champhai","Kolasib","Lawngtlai","Lunglei","Mamit","Saiha",
        "Serchhip"
        ],
        "Nagaland": [

"Dimapur","Kiphire","Kohima","Longleng","Mokokchung","Mon","Peren","Phek",
        "Tuensang","Wokha","Zunheboto"
        ],
        "Odisha": [

"Angul","Balangir","Balasore","Bargarh","Bhadrak","Boudh","Cuttack","Deogarh",

"Dhenkanal","Gajapati","Ganjam","Jagatsinghapur","Jajpur","Jharsuguda",
        "Kalahandi","Kandhamal","Kendrapara","Kendujhar","Khordha","Koraput",

"Malkangiri","Mayurbhanj","Nabarangpur","Nayagarh","Nuapada","Puri","Rayagada"
,
        "Sambalpur","Sonepur","Sundargarh"
        ],
        "Puducherry": [
        "Karaikal","Mahe","Puducherry","Yanam"
        ],
```

```
        "Punjab": [
        "Amritsar","Barnala","Bathinda","Faridkot","Fatehgarh
Sahib","Fazilka",

"Ferozepur","Gurdaspur","Hoshiarpur","Jalandhar","Kapurthala","Ludhiana",

"Mansa","Moga","Muktsar","Nawanshahr","Pathankot","Patiala","Rupnagar",
        "Sahibzada Ajit Singh Nagar","Sangrur","Tarn Taran"
        ],
        "Rajasthan": [

"Ajmer","Alwar","Banswara","Baran","Barmer","Bharatpur","Bhilwara","Bikaner",

"Bundi","Chittorgarh","Churu","Dausa","Dholpur","Dungarpur","Ganganagar",

"Hanumangarh","Jaipur","Jaisalmer","Jalore","Jhalawar","Jhunjhunu","Jodhpur",
        "Karauli","Kota","Nagaur","Pali","Rajsamand","Sawai
Madhopur","Sikar","Sirohi",
        "Tonk","Udaipur"
        ],
        "Sikkim": [
        "East Sikkim","North Sikkim","South Sikkim","West Sikkim"
        ],
        "Tamil Nadu": [

"Ariyalur","Chengalpattu","Chennai","Coimbatore","Cuddalore","Dharmapuri",

"Dindigul","Erode","Kallakurichi","Kanchipuram","Kanyakumari","Karur","Krishna
giri",

"Madurai","Mayiladuthurai","Nagapattinam","Namakkal","Nilgiris","Perambalur",

"Pudukkottai","Ramanathapuram","Ranipet","Salem","Sivaganga","Tenkasi",

"Thanjavur","Theni","Thiruvallur","Thiruvarur","Thoothukudi","Tiruchirappalli"
,

"Tirunelveli","Tirupathur","Tiruppur","Tiruvannamalai","Vellore","Viluppuram",
        "Virudhunagar"
        ],
        "Telangana": [
        "Adilabad","Hyderabad","Jagitial","Jangaon","Jayashankar
Bhoopalpally",
        "Jogulamba Gadwal","Kamareddy","Karimnagar","Khammam","Komaram Bheem",
        "Mahabubabad","Mahabubnagar","Mancherial","Medak","Medchal-
Malkajgiri","Mulugu",

"Nagarkurnool","Nalgonda","Narayanpet","Nirmal","Nizamabad","Peddapalli",
```

```
        "Rajanna Sircilla","Ranga
Reddy","Sangareddy","Siddipet","Suryapet","Vikarabad",
        "Wanaparthy","Warangal Rural","Warangal Urban","Yadadri Bhuvanagiri"
        ],
        "Tripura": [
        "Dhalai","Gomati","Khowai","North Tripura","Sepahijala","South
Tripura",
        "Unakoti","West Tripura"
        ],
        "Uttar Pradesh": [
        "Agra","Aligarh","Allahabad","Ambedkar Nagar","Amethi",
        "Amroha","Auraiya","Azamgarh","Badaun","Baghpat","Bahraich",
        "Ballia","Balrampur","Banda","Bara Banki","Bareilly",
        "Basti","Bijnor","Budaun","Bulandshahr","Chandauli",
        "Chitrakoot","Deoria","Etah","Etawah","Faizabad",
        "Farrukhabad","Fatehpur","Firozabad","Gautam Buddha Nagar",
        "Ghaziabad","Ghazipur","Gonda","Gorakhpur","Hamirpur",
        "Hapur","Hardoi","Hathras","Jalaun","Jaunpur",
        "Jhansi","Kannauj","Kanpur Dehat","Kanpur Nagar","Kasganj",
        "Kaushambi","Kushinagar","Lakhimpur Kheri","Lalitpur","Lucknow",
        "Maharajganj","Mahoba","Mainpuri","Mathura","Mau",
        "Meerut","Mirzapur","Moradabad","Muzaffarnagar","Pilibhit",
        "Pratapgarh","Raebareli","Rampur","Saharanpur","Sambhal",
        "Sant Kabir
Nagar","Shahjahanpur","Shamli","Shrawasti","Siddharthnagar",
        "Sitapur","Sonbhadra","Sultanpur","Unnao","Varanasi"
        ],
        "Uttarakhand": [
        "Almora","Bageshwar","Chamoli","Champawat","Dehradun",
        "Haridwar","Nainital","Pauri Garhwal","Pithoragarh","Rudraprayag",
        "Tehri Garhwal","Udham Singh Nagar","Uttarkashi"
        ],
        "West Bengal": [
        "Alipurduar","Bankura","Birbhum","Cooch Behar","Dakshin Dinajpur",
        "Darjeeling","Hooghly","Howrah","Jalpaiguri","Jhargram",
        "Kalimpong","Kolkata","Malda","Murshidabad","Nadia",
        "North 24 Parganas","Paschim Bardhaman","Paschim Medinipur","Purba
Bardhaman","Purba Medinipur",
        "Purulia","South 24 Parganas","Uttar Dinajpur"
        ]
      }

      countryDropdown.addEventListener("change", () => {
        const selectedCountry = countryDropdown.value;

        if (selectedCountry) {
          const states = statesByCountry[selectedCountry];
          stateDropdown.addEventListener("click", () => {
```

```javascript
      const selectedState = stateDropdown.value;
      const districts = districtByState[selectedState];

      districtDropdown.innerHTML = "";

      for (const district of districts) {
        const option = document.createElement("option");
        option.value = district;
        option.text = district;
        districtDropdown.add(option);
      }

  })

      stateDropdown.innerHTML = "";

      for (const state of states) {
        const option = document.createElement("option");
        option.value = state;
        option.text = state;
        stateDropdown.add(option);
      }

      stateDropdown.disabled = false;
    }
    else
    {
      stateDropdown.innerHTML = "";
      districtDropdown.innerHTML = "";
      stateDropdown.disabled = true;
    }
});
  const form = document.getElementById("profile-form");

  form.addEventListener("submit", function(event) {
    event.preventDefault();
    if (!validateForm()) {
      return;
    }

  var firstName = document.getElementById('first-name').value+" ";
  var middleName = document.getElementById('middle-name').value+" ";
  var lastName = document.getElementById('last-name').value;
  var email = document.getElementById('email').value;
  var phone = document.getElementById('phone').value;
  var country = document.getElementById('country').value;
  var state = document.getElementById('state').value;
  var district = document.getElementById('district').value;
```

```javascript
        var pincode = document.getElementById('pincode').value;
        var skills = document.getElementById('skills').value;
        var fileInput = document.getElementById('fileInput');

        const formData = {
            fileInput,
            firstName,
            middleName,
            lastName,
            email,
            phone,
            country,
            state,
            district,
            pincode,
            skills
        };

        displayPortfolio(formData);

        });

        function displayPortfolio(formData) {
            const form = document.getElementById("profile-form");
            form.style.display = "none";
            const portfolio = document.getElementById("portfolio");
            portfolio.style.display = "block"

            var fileInput = document.getElementById('fileInput');
            var file = fileInput.files[0];
            var reader = new FileReader();
            reader.onload = function() {
              var imageUrl = reader.result;
              var img = document.createElement('img');
              img.src = imageUrl;

              portfolio.appendChild(img);

              var a = document.createElement('a');
              a.href = imageUrl;
              a.download = file.name;
              a.click();
              const nameElement = document.createElement("h2");
              nameElement.setAttribute("id", "myname");
              nameElement.textContent =
formData.firstName+formData.middleName+formData.lastName;

              const emailElement = document.createElement("p");
```

```javascript
            emailElement.setAttribute("id", "myemail");
            emailElement.textContent = formData.email;

            const phoneElement = document.createElement("p");
            phoneElement.textContent = formData.phone;

            const cityElement = document.createElement("p");
            cityElement.textContent = formData.district+",
"+formData.state+", "+formData.country+".";

            const pincodeElement = document.createElement("p");
            pincodeElement.textContent = formData.pincode;

            const skillsElement = document.createElement("p");
            skillsElement.innerHTML = "IT Skills: "+formData.skills;


            portfolio.appendChild(nameElement);
            portfolio.appendChild(emailElement);
            portfolio.appendChild(phoneElement);
            portfolio.appendChild(cityElement);
            portfolio.appendChild(pincodeElement);
            portfolio.appendChild(skillsElement);
        };
        reader.readAsDataURL(file);
    }
```

❖ **Output:-**

Vrin

Middle Name:

Last Name:

Gaur

Email:

missvrindagaur@gmail.com

Mobile:

69034247730

Country:

India

State:

Haryana

District:

Ambala

Pincode:

140301

Skills:

Html, CSS, JavaScript, C++, Java, Python, Cloud Computing, Networ

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Vrinda Gaur

missvrindagaur@gmail.com

9034247730

Ambala, Haryana, India.

136135

IT Skills: Html, CSS, JavaScript, C++, Java, Python, Cloud Computing, Networking.

Q2. Solve the following questions using Java Script.

1) Write a javascript to shuffle an array.

❖ **Code:-**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>
        assignment_question_2.1
    </title>
</head>
<body>
    <h2>Shuffling an array</h2>

    <script type="text/javascript">
        function shuffle(array){
            for(var i=array.length-1; i>0; i--){
                const j = Math.floor(Math.random()*(i+1));
                [array[i], array[j]] = [array[j], array[i]];
            }
            return array;
        }

        const arr = [1,2,3,4,5,6];
        shuffle(arr);
        document.write(arr);

    </script>

</body>
</html>
```

❖ **Output:-**

Shuffling an array

5,1,4,2,6,3

2) Write a javascript program to generate a random sting of length n

❖ **Code:-**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>
        assignment_question_2.2
    </title>
</head>
<body>
    <h2>Generating a random string of length n</h2>

    <script type="text/javascript">
        function generate(n){
            const chars =
"abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ";
            let result = "";
            for(let i =0;i<n;i++){
                const index = Math.floor(Math.random()*chars.length)
                result += chars[index];
            }
            return result;
        }

        const str = generate(10);
        document.write(str);

    </script>

</body>
</html>
```

❖ **Output:-**

3) Write a JavaScript to flatten an array

❖ **Code:-**

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>
        assignment_question_2.3
    </title>
</head>
<body>
    <h2> Flatten an array </h2>
    <script>
        const arr = [1,2,[3,4],[5,[6,7]]];
        document.write(JSON.stringify(arr.flat(Infinity)))
    </script>
</body>
</html>
```

❖ **Output:-**

Flatten an array

[1,2,3,4,5,6,7]

4) find factorial of the given number using javascript

❖ **Code:-**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>
        assignment_question_2.4
    </title>
</head>
<body>
    <h2>
        Factorial of given number
    </h2>
    <script type="text/javascript">
        function fac(n){
            let temp = n;
            for(let i=temp-1;i>1;i--){
                temp *= i;
            }
            return temp;
        }

        const num = 5;
        document.write("factorial of "+num+":- "+fac(num));

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

❖ **Output:-**

Factorial of given number

factorial of 5:- 120

5) Write a javascript to check if the number is prime or not

❖ **Code:-**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>
        assignment_question_2.5
    </title>
</head>
<body>
    <h2>
        Checking Prime Number
    </h2>
    <script type="text/javascript">
        function isPrime(n){
            if(num<2){
                return document.write(num+" is not a Prime Number");
            }
            for (let i=2;i<=Math.sqrt(n);i++){
                if(n%i==0){
                    return document.write(num+" is not a Prime Number");
                }
            }
            return document.write(num+" is a Prime Number");
        }

        const num = 5;
        isPrime(num);

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

❖ **Output:-**

Checking Prime Number

5 is a Prime Number

6) Write a Javascript to reverse a string

❖ **Code:-**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>
        assignment_question_2.6
    </title>
</head>
<body>
    <h2>Reversing a string</h2>

    <script type="text/javascript">
        function rev(s){
            let result = '';
            for(let i=s.length-1;i>=0;i--){
                result += s[i];
            }
            return result;
        }

        const str = "vrinda";
        document.write(rev(str));

    </script>

</body>
</html>
```

❖ **Output:-**

Reversing a string

adnirv

7) Write a javascript to convert Fahrenheit to Celsius

❖ **Code:-**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>
        assignment_question_2.7
    </title>
</head>
<body>
    <h2>Fahrenheit to Celsius</h2>

    <script type="text/javascript">
        function convert(f){
            const c = (f-32)*5/9;
            return c;
        }

        const f = 68;
        document.write(f+"&#8457; is equal to "+convert(f)+"&#8451;");

    </script>

</body>
</html>
```

❖ **Output:-**

Fahrenheit to Celsius

68°F is equal to 20°C

8) write a Javascript to find sum of an Array

❖ **Code:-**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>
        assignment_question_2.8
    </title>
</head>
<body>
    <h2>Sum of an array</h2>

    <script type="text/javascript">
        function sum(array){
            let sum = 0;
            for(var i=0; i<array.length; i++){
                sum += array[i];
            }
            return sum;
        }

        const arr = [1,2,3,4,5];
        document.write("Sum of array is = "+sum(arr));

    </script>

</body>
</html>
```

❖ **Output:-**

Sum of an array

Sum of array is = 15