UNIVERSITI MALAYSIA TERENGGANU

Faculty of Computer Sciences and Mathematics

Front-End Programming
CSM3103

Lab Report 6

Prepared for:

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Bachelor of Computer Science (Mobile Computing) with Honors

Semester II 2023/2024

Task 2

a. Codes:

task2.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Lab 6 : Firebase</title>
</head>
<body>

    <h2>Simple Input</h2>

    <div class="row">
        <h4>Enter ID</h4>
        <input type="text" id="inputID">
        <h4>Enter Name</h4>
        <input type="text" id="inputName">
        <h4>Enter Age</h4>
        <input type="number" id="inputAge">
        <br>
        <br>
        <button id="btnInsert">Insert Data</button>
    </div>

    <script type="module">
        // Import the functions you need from the SDKs you need
        import { initializeApp } from
"https://www.gstatic.com/firebasejs/10.12.0/firebase-app.js";
        // TODO: Add SDKs for Firebase products that you want to use
        // https://firebase.google.com/docs/web/setup#available-libraries

        // Your web app's Firebase configuration
        const firebaseConfig = {
            apiKey: "AIzaSyAg9iqUE0H0YA8WZFXhWVwDVRa6qw_kURw",
            authDomain: "csm3103-lab6-399fb.firebaseapp.com",
            databaseURL: "https://csm3103-lab6-399fb-default-rtdb.asia-southeast1.firebasedatabase.app",
            projectId: "csm3103-lab6-399fb",
            storageBucket: "csm3103-lab6-399fb.appspot.com",
            messagingSenderId: "19925079351",
            appId: "1:19925079351:web:56f3bcb737a683cb2df6b2"
        };

        // Initialize Firebase
        const app = initializeApp(firebaseConfig);

        // Import the selected method from google related to Firebase-Database
        import {getDatabase, set, get, remove, update, ref, child}
```

```
            from "https://www.gstatic.com/firebasejs/10.12.0/firebase-
database.js";

        // Create the holder for the database using the imported
method getDatabase()
        const db = getDatabase();

        // Retrieve the object from html into the JavaScript
        var inputID = document.getElementById('inputID');
        var inputName = document.getElementById('inputName');
        var inputAge = document.getElementById('inputAge');

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

        // Add a listener for a click event on btnInsert
        btnInsert.addEventListener("click", funInsertData);

        // Add the function funInsertData
        function funInsertData() {
            set(ref(db, "People/" + inputID.value), {
                ID: inputID.value,
                name: inputName.value,
                age: inputAge.value
            })
            .then(()=>{
                alert("Data added successfully!");
            })
            .catch((error)=>{
                alert(error);
            });
        }
    </script>

</body>
</html>
```

task2 form.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Lab 6 : Firebase</title>
</head>
<body>

    <h2>Simple Input</h2>

    <form id="myForm">
        <table>
            <tr>
                <td><label for="inputID">ID</label></td>
                <td><input type="text" id="inputID"></td>
            </tr>
            <tr>
```

```html
                <td><label for="inputName">Name</label></td>
                <td><input type="text" id="inputName"></td>
            </tr>
            <tr>
                <td><label for="inputAge">Age</label></td>
                <td><input type="number" id="inputAge"></td>
            </tr>
            <tr>
                <td>
                    <br>
                    <button type="button" id="btnInsert">Insert
Data</button>
                </td>
            </tr>
        </table>
    </form>

    <script type="module">
        // Import the functions you need from the SDKs you need
        import { initializeApp } from
"https://www.gstatic.com/firebasejs/10.12.0/firebase-app.js";
        // TODO: Add SDKs for Firebase products that you want to use
        // https://firebase.google.com/docs/web/setup#available-
libraries

        // Your web app's Firebase configuration
        const firebaseConfig = {
            apiKey: "AIzaSyAg9iqUE0H0YA8WZFXhWVwDVRa6qw_kURw",
            authDomain: "csm3103-lab6-399fb.firebaseapp.com",
            databaseURL: "https://csm3103-lab6-399fb-default-
rtdb.asia-southeast1.firebasedatabase.app",
            projectId: "csm3103-lab6-399fb",
            storageBucket: "csm3103-lab6-399fb.appspot.com",
            messagingSenderId: "19925079351",
            appId: "1:19925079351:web:56f3bcb737a683cb2df6b2"
        };

        // Initialize Firebase
        const app = initializeApp(firebaseConfig);

        // Import the selected method from google related to Firebase-
Database
        import {getDatabase, set, get, remove, update, ref, child}
        from "https://www.gstatic.com/firebasejs/10.12.0/firebase-
database.js";

        // Create the holder for the database using the imported
method getDatabase()
        const db = getDatabase();

        // Retrieve the object from html into the JavaScript
        var form = document.getElementById('myForm');

        var inputID = document.getElementById('inputID');
        var inputName = document.getElementById('inputName');
        var inputAge = document.getElementById('inputAge');

        var btnInsert = document.getElementById('btnInsert');
```

```
            btnInsert.addEventListener("click", funInsertData);

            function funInsertData() {
                set(ref(db, "People/" + inputID.value), {
                    ID: inputID.value,
                    name: inputName.value,
                    age: inputAge.value
                })
                .then(()=>{
                    alert("Data added successfully!")
                })
                .catch((error)=>{
                    alert(error)
                });
            }
        </script>

    </body>
    </html>
```

task2 delete.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Lab 6 : Firebase</title>
</head>
<body>

    <h2>Simple Input</h2>

    <form id="myForm">
        <table>
            <tr>
                <td><label for="inputID">ID</label></td>
                <td><input type="text" id="inputID"></td>
            </tr>
            <tr>
                <td><label for="inputName">Name</label></td>
                <td><input type="text" id="inputName"></td>
            </tr>
            <tr>
                <td><label for="inputAge">Age</label></td>
                <td><input type="number" id="inputAge"></td>
            </tr>
        </table>
        <br>
        <button type="button" id="btnInsert">Insert Data</button>
        <button type="button" id="btnDelete">Delete Data</button>
    </form>

    <script type="module">
        // Import the functions you need from the SDKs you need
```

```
        import { initializeApp } from
"https://www.gstatic.com/firebasejs/10.12.0/firebase-app.js";
        // TODO: Add SDKs for Firebase products that you want to use
        // https://firebase.google.com/docs/web/setup#available-
libraries

        // Your web app's Firebase configuration
        const firebaseConfig = {
            apiKey: "AIzaSyAg9iqUE0H0YA8WZFXhWVwDVRa6qw_kURw",
            authDomain: "csm3103-lab6-399fb.firebaseapp.com",
            databaseURL: "https://csm3103-lab6-399fb-default-
rtdb.asia-southeast1.firebasedatabase.app",
            projectId: "csm3103-lab6-399fb",
            storageBucket: "csm3103-lab6-399fb.appspot.com",
            messagingSenderId: "19925079351",
            appId: "1:19925079351:web:56f3bcb737a683cb2df6b2"
        };

        // Initialize Firebase
        const app = initializeApp(firebaseConfig);

        // Import the selected method from google related to Firebase-
Database
        import {getDatabase, set, get, remove, update, ref, child}
        from "https://www.gstatic.com/firebasejs/10.12.0/firebase-
database.js";

        // Create the holder for the database using the imported
method getDatabase()
        const db = getDatabase();

        // Retrieve the object from html into the JavaScript
        var form = document.getElementById('myForm');

        var inputID = document.getElementById('inputID');
        var inputName = document.getElementById('inputName');
        var inputAge = document.getElementById('inputAge');

        var btnInsert = document.getElementById('btnInsert');
        var btnDelete = document.getElementById('btnDelete');

        btnInsert.addEventListener('click', insertData);
        btnDelete.addEventListener('click', deleteData);

        function insertData() {
            set(ref(db, "People/" + inputID.value), {
                ID: inputID.value,
                name: inputName.value,
                age: inputAge.value
            })
            .then(()=>{
                alert("Data added successfully!")
            })
            .catch((error)=>{
                alert(error)
            });
        }

        function deleteData() {
```

```
            remove(ref(db, "People/" + inputID.value))
            .then(()=>{
                alert("Data removed successfully!")
            })
            .catch((error)=>{
                alert(error)
            });
        }
    </script>

</body>
</html>
```

b. Outputs:
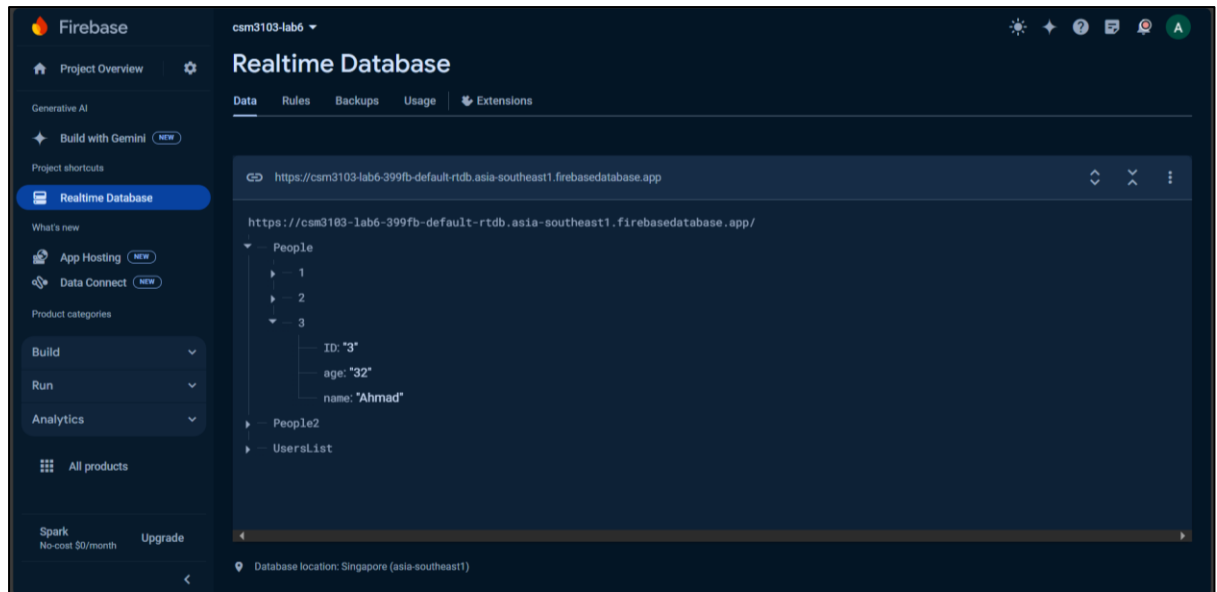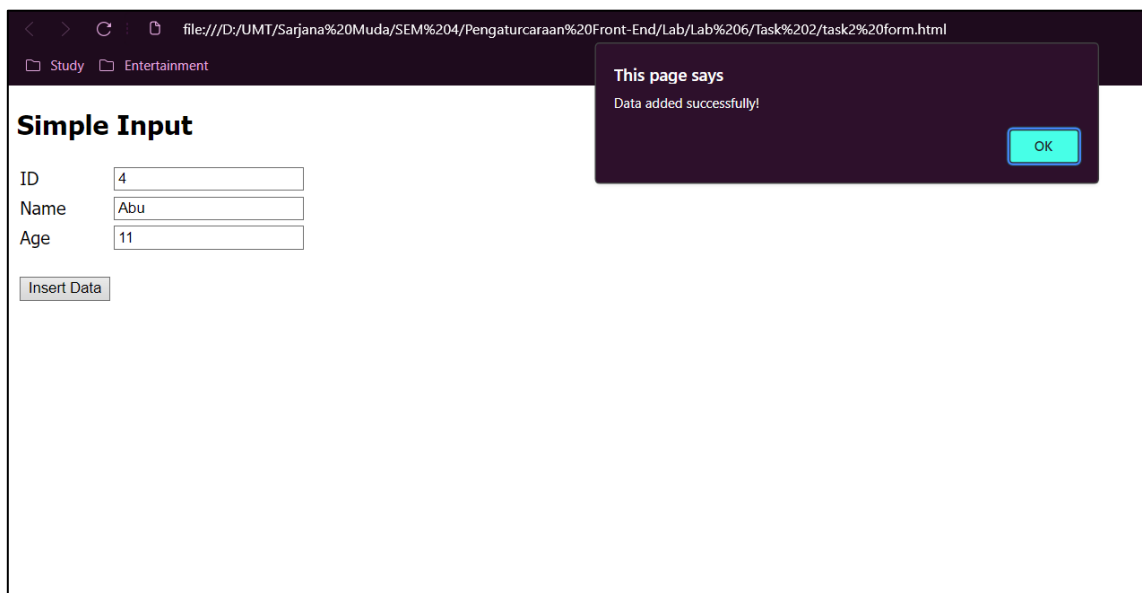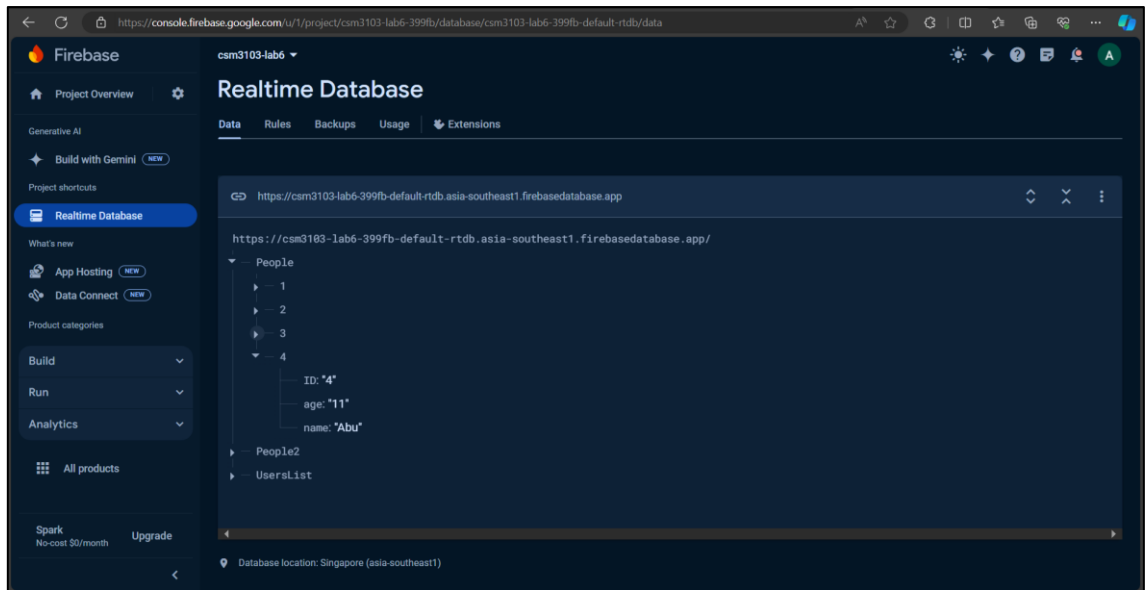
Task 3

a. Codes:
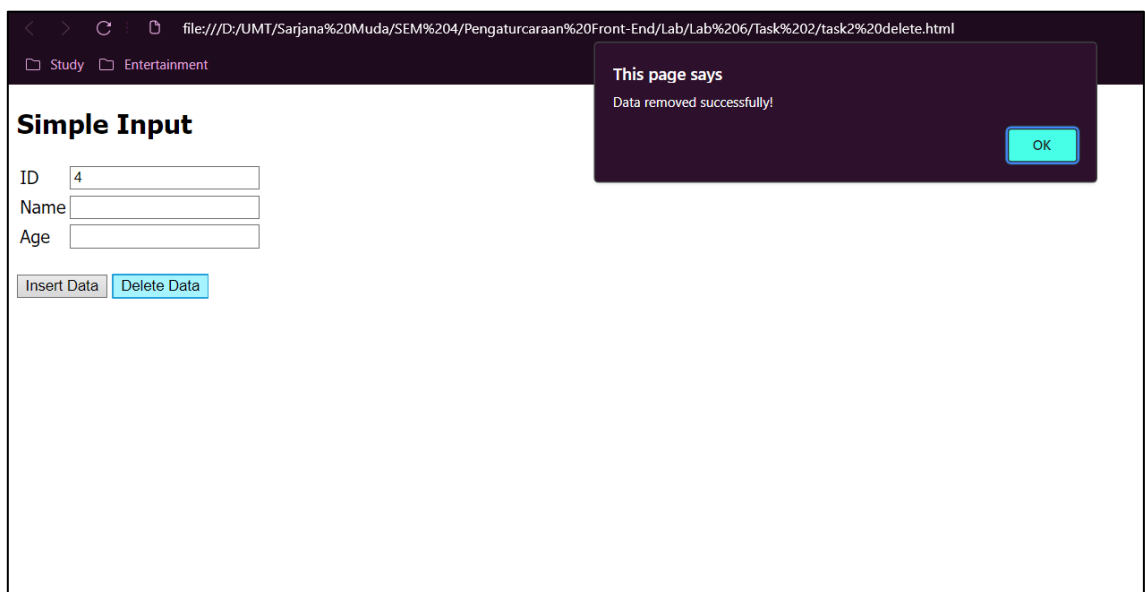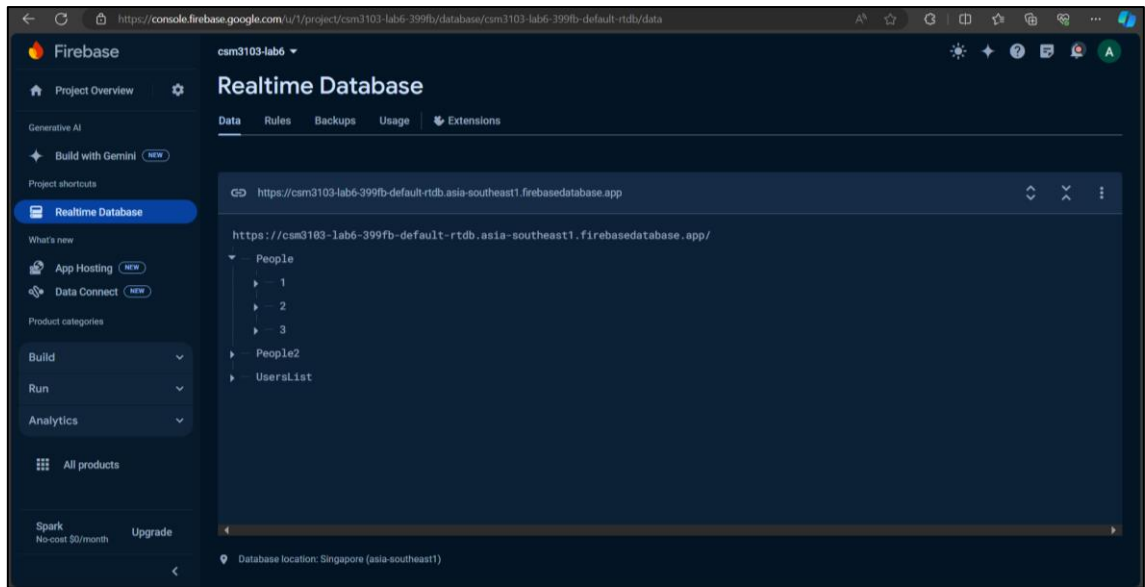
register.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Sign Up</title>
    <script src="https://cdnjs.cloudflare.com/ajax/libs/crypto-
js/4.2.0/crypto-js.min.js" integrity="sha512-
a+SUDuwNzXDvz4XrIcXHuCf089/iJAoN4lmrXJg18XnduKK6YlDHNRalv4yd1N40OKI80t
FidF+rqTFKGPoWFQ==" referrerpolicy="no-referrer"></script>
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.4.1/dist/css/bootstrap.
min.css" integrity="sha384-
Vkoo8x4CGsO3+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh"
crossorigin="anonymous">
    <style>
        body {
            display: flex;
            justify-content: center;
            align-items: center;
            height: 100vh;
            width: 100vw;
            margin: 0;
        }
    </style>
</head>
<body>

    <div class="mb-5">
        <h3 class="mb-3">Sign Up</h3>
        <input type="text" placeholder="Fullname" id="inputFullname"
class="form-control mb-3">
        <input type="text" placeholder="Email" id="inputEmail"
class="form-control mb-3">
        <input type="text" placeholder="Username" id="inputUsername"
class="form-control mb-3">
        <input type="password" placeholder="Password"
id="inputPassword" class="form-control mb-3">
        <button type="button" id="btnSignUp" class="btn btn-outline-
primary mb-3 w-100">Sign Up</button>
        <a href="login.html" class="badge badge-secondary py-1 w-
100">Already have an account?</a>
    </div>

    <script type="module">
        // Import the functions you need from the SDKs you need
        import { initializeApp } from
"https://www.gstatic.com/firebasejs/10.12.0/firebase-app.js";
```

```
            // Your web app's Firebase configuration
        const firebaseConfig = {
            apiKey: "AIzaSyAg9iqUE0H0YA8WZFXhWVwDVRa6qw_kURw",
            authDomain: "csm3103-lab6-399fb.firebaseapp.com",
            databaseURL: "https://csm3103-lab6-399fb-default-
rtdb.asia-southeast1.firebasedatabase.app",
            projectId: "csm3103-lab6-399fb",
            storageBucket: "csm3103-lab6-399fb.appspot.com",
            messagingSenderId: "19925079351",
            appId: "1:19925079351:web:56f3bcb737a683cb2df6b2"
        };

        // Initialize Firebase
        const app = initializeApp(firebaseConfig);

        // Import the selected method from google related to Firebase-
Database
        import { getDatabase, set, get, remove, update, ref, child }
        from "https://www.gstatic.com/firebasejs/10.12.0/firebase-
database.js";

        // Create the holder for the database using the imported
method getDatabase()
        const db = getDatabase();

        // References
        var inputFullname = document.getElementById('inputFullname');
        var inputEmail = document.getElementById('inputEmail');
        var inputUsername = document.getElementById('inputUsername');
        var inputPassword = document.getElementById('inputPassword');
        var btnSignUp = document.getElementById('btnSignUp');

        // Validation
        function validateInput() {
            let fullnameRegex = /^[a-zA-Z\s]+$/;
            let emailRegex = /^[a-zA-Z0-
9]+@(gmail|yahoo|outlook)\.com$/;
            let usernameRegex = /^[a-zA-Z0-9]{5,}$/;

            if (isEmptyorSpaces(inputFullname.value) ||
isEmptyorSpaces(inputEmail.value)
                || isEmptyorSpaces(inputUsername.value) ||
isEmptyorSpaces(inputPassword.value)) {
                alert("You cannot left any field empty.");
                return false;
            }

            if (!fullnameRegex.test(inputFullname.value)) {
                alert("The name should only contain alphabets!");
                return false;
            }

            if (!emailRegex.test(inputEmail.value)) {
                alert("Invalid email!");
                return false;
            }

            if (!usernameRegex.test(inputUsername.value)) {
```

```
                    alert("Username can only be alphanumeric\nUsername
must be at least 5 characters\nUsername cannot contain space");
                return false;
            }

            return true;
        }

        function isEmptyorSpaces(str) {
            return str === null || str.match(/^ *$/) !== null;
        }

        // Password encryption
        function encryptPassword() {
            var encryptedPassword =
CryptoJS.AES.encrypt(inputPassword.value, inputPassword.value);
            return encryptedPassword.toString();
        }

        // Register user to firebase
        function registerUser() {
            if (!validateInput()) {
                return;
            }

            get(child(ref(db), "UsersList/" + inputUsername.value))
            .then((snapshot)=>{
                if (snapshot.exists()) {
                    alert("Account already exist!");
                }
                else {
                    set(ref(db, "UsersList/" + inputUsername.value), {
                        fullname: inputFullname.value,
                        email: inputEmail.value,
                        username: inputUsername.value.toLowerCase(),
                        password: encryptPassword()
                    })
                    .then(() => {
                        alert("Account created successfully!");
                        window.location = "login.html";
                    })
                    .catch((error) => {
                        alert(error);
                    })
                }
            })
            .catch((error) => {
                console.error(error);
            });
        }

        // Assign the events
        btnSignUp.addEventListener('click', registerUser);
    </script>
</body>
</html>
```

login.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Log In</title>
    <script src="https://cdnjs.cloudflare.com/ajax/libs/crypto-
js/4.2.0/crypto-js.min.js" integrity="sha512-
a+SUDuwNzXDvz4XrIcXHuCf089/iJAoN4lmrXJg18XnduKK6YlDHNRalv4yd1N40OKI80t
FidF+rqTFKGPoWFQ==" crossorigin="anonymous" referrerpolicy="no-
referrer"></script>
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.4.1/dist/css/bootstrap.
min.css" integrity="sha384-
Vkoo8x4CGsO3+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh"
crossorigin="anonymous">
    <style>
        body {
            display: flex;
            justify-content: center;
            align-items: center;
            height: 100vh;
            width: 100vw;
            margin: 0;
        }
    </style>
</head>
<body>

    <div class="mb-5">
        <h3 class="mb-3">Log In</h3>
        <input type="text" placeholder="Username" id="inputUsername"
class="form-control mb-3">
        <input type="password" placeholder="Password"
id="inputPassword" class="form-control mb-3">
        <div class="custom-control custom-switch mb-3">
            <input type="checkbox" class="custom-control-input"
id="switchKeepLoggedIn">
            <label class="custom-control-label"
for="switchKeepLoggedIn">Keep me logged in</label>
        </div>
        <button type="button" id="btnLogIn" class="btn btn-outline-
primary mb-3 w-100">Log In</button>
        <a href="register.html" class="badge badge-secondary py-1 w-
100">Create a new account</a>
    </div>

    <script type="module">
        // Import the functions you need from the SDKs you need
        import { initializeApp } from
"https://www.gstatic.com/firebasejs/10.12.0/firebase-app.js";

        // Your web app's Firebase configuration
        const firebaseConfig = {
            apiKey: "AIzaSyAg9iqUE0H0YA8WZFXhWVwDVRa6qw_kURw",
```

```
            authDomain: "csm3103-lab6-399fb.firebaseapp.com",
            databaseURL: "https://csm3103-lab6-399fb-default-
rtdb.asia-southeast1.firebasedatabase.app",
            projectId: "csm3103-lab6-399fb",
            storageBucket: "csm3103-lab6-399fb.appspot.com",
            messagingSenderId: "19925079351",
            appId: "1:19925079351:web:56f3bcb737a683cb2df6b2"
        };

        // Initialize Firebase
        const app = initializeApp(firebaseConfig);

        // Import the selected method from google related to Firebase-
Database
        import { getDatabase, set, get, remove, update, ref, child }
        from "https://www.gstatic.com/firebasejs/10.12.0/firebase-
database.js";

        // Create the holder for the database using the imported
method getDatabase()
        const db = getDatabase();

        // References
        var inputUsername = document.getElementById('inputUsername');
        var inputPassword = document.getElementById('inputPassword');
        var btnLogIn = document.getElementById('btnLogIn');

        // Authentication process
        function authenticateUser() {
            get(child(ref(db), "UsersList/" + inputUsername.value))
            .then((snapshot)=>{
                if (snapshot.exists()) {
                    let dbPassword =
decryptPassword(snapshot.val().password);
                    if (inputPassword.value.toLowerCase() ==
dbPassword) {

                        login(snapshot.val());
                    }
                    else {
                        alert("User does not exist!");
                    }
                }
                else {
                    alert("Invalid username or password!");
                }
            })
            .catch((error) => {
                console.error(error);
            });
        }

        // Password decryption
        function decryptPassword(dbPassword) {
            var decryptedPassword = CryptoJS.AES.decrypt(dbPassword,
inputPassword.value);
            return decryptedPassword.toString(CryptoJS.enc.Utf8);
        }

        // Login
```

```
        function login(user) {
            let keepLoggedIn =
document.getElementById('switchKeepLoggedIn').checked;

            if (!keepLoggedIn) {
                sessionStorage.setItem('user', JSON.stringify(user));
                window.location = "home.html";
            }
            else {
                localStorage.setItem('keepLoggedIn', 'Yes');
                localStorage.setItem('user', JSON.stringify(user));
                window.location = "home.html";
            }
        }

        // Assign the events
        btnLogIn.addEventListener('click', authenticateUser);
    </script>
</body>
</html>
```

home.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Home</title>
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.4.1/dist/css/bootstrap.
min.css" integrity="sha384-
Vkoo8x4CGsO3+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh"
crossorigin="anonymous">
    <script src="https://kit.fontawesome.com/aa5de83a5b.js"
crossorigin="anonymous"></script>
</head>
<body>

    <nav class="navbar navbar-expand-lg navbar-dark bg-dark">
        <a class="navbar-brand" href="#">CSM3103</a>
        <button class="navbar-toggler" type="button" data-
toggle="collapse" data-target="#navbarSupportedContent" aria-
controls="navbarSupportedContent" aria-expanded="false" aria-
label="Toggle navigation">
            <span class="navbar-toggler-icon"></span>
        </button>

        <div class="collapse navbar-collapse"
id="navbarSupportedContent">
            <ul class="navbar-nav mr-auto">
                <li class="nav-item active">
                    <a class="nav-link" href="home.html">Home<span
class="sr-only">(current)</span></a>
                </li>
                <li class="nav-item">
```

```html
                    <a id="navTable" class="nav-link"
href="table.html">Table</a>
                </li>
            </ul>
            <form class="form-inline my-2 my-lg-0">
                <ul class="navbar-nav mr-auto">
                    <li class="nav-item mx-1">
                        <a class="nav-link" href="#"
id="linkUsername">Username</a>
                    </li>
                    <li class="nav-item mx-1">
                        <a class="nav-link" href="#"
id="linkSignOut">Sign Out</a>
                    </li>
                </ul>
            </form>
        </div>
    </nav>

    <div class="mx-auto mt-5 text-center">
        <h1 id="header"></h1>
    </div>

    <script>
        // References
        var linkUsername = document.getElementById('linkUsername');
        var linkSignOut = document.getElementById('linkSignOut');
        var header = document.getElementById('header');
        var navTable = document.getElementById('navTable');
        var currentUser = null;

        // Functions
        function getUsername() {
            let keepLoggedIn = localStorage.getItem("keepLoggedIn");

            if (keepLoggedIn == "Yes") {
                currentUser =
JSON.parse(localStorage.getItem('user'));
            }
            else {
                currentUser =
JSON.parse(sessionStorage.getItem('user'));
            }
        }

        function signOut() {
            sessionStorage.removeItem('user');
            localStorage.removeItem('user');
            localStorage.removeItem('keepLoggedIn');
            window.location = "home.html";
        }

        // Windows load
        window.onload = function() {
            getUsername();

            if (currentUser == null) {
                linkUsername.innerText = "Create New Account";
                linkUsername.classList.replace("nav-link", "btn");
```

```
                    linkUsername.classList.add("btn-light");
                    linkUsername.href = "register.html";

                    linkSignOut.innerText = "Log In";
                    linkSignOut.classList.replace("nav-link", "btn");
                    linkSignOut.classList.add("btn-secondary");
                    linkSignOut.href = "login.html";

                    navTable.classList.add("disabled");
                }
                else {
                    linkUsername.innerText = currentUser.username;
                    linkUsername.classList.replace("btn", "nav-link");
                    linkUsername.classList.remove("btn-light");
                    linkUsername.href = "#";

                    linkSignOut.innerText = "Sign Out";
                    linkSignOut.classList.replace("btn", "nav-link");
                    linkSignOut.classList.remove("btn-secondary");
                    linkSignOut.href = "javascript:signOut()";

                    navTable.classList.remove("disabled");

                    header.innerText = "Welcome " + currentUser.fullname;
                }
            }
        </script>

</body>
</html>
```

table.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Table</title>
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.4.1/dist/css/bootstrap.
min.css" integrity="sha384-
Vkoo8x4CGsO3+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh"
crossorigin="anonymous">
    <script src="https://kit.fontawesome.com/aa5de83a5b.js"
crossorigin="anonymous"></script>
    <style>
        #rowAdd {
            cursor: pointer;
        }
    </style>
</head>
<body>

    <nav class="navbar navbar-expand-lg navbar-dark bg-dark">
        <a class="navbar-brand" href="#">CSM3103</a>
```

```html
        <button class="navbar-toggler" type="button" data-
toggle="collapse" data-target="#navbarSupportedContent" aria-
controls="navbarSupportedContent" aria-expanded="false" aria-
label="Toggle navigation">
            <span class="navbar-toggler-icon"></span>
        </button>

        <div class="collapse navbar-collapse"
id="navbarSupportedContent">
            <ul class="navbar-nav mr-auto">
                <li class="nav-item">
                    <a class="nav-link" href="home.html">Home</a>
                </li>
                <li class="nav-item active">
                    <a class="nav-link" href="table.html">Table<span
class="sr-only">(current)</span></a>
                </li>
            </ul>
            <form class="form-inline my-2 my-lg-0">
                <ul class="navbar-nav mr-auto">
                    <li class="nav-item mx-1">
                        <a class="nav-link" href="#"
id="linkUsername">Username</a>
                    </li>
                    <li class="nav-item mx-1">
                        <a class="nav-link" href="#"
id="linkSignOut">Sign Out</a>
                    </li>
                </ul>
            </form>
        </div>
    </nav>

    <div class="container mt-3">
        <div class="table-responsive-lg">
            <table class="table">
                <thead class="thead-dark">
                    <th scope="col">No.</th>
                    <th scope="col">Name</th>
                    <th scope="col">Address</th>
                    <th scope="col">Phone No.</th>
                </thead>
                <tbody id="tbody">
                    <tr class="text-center" id="rowAdd">
                        <td class="table-secondary" colspan="4"><i
class="fa-solid fa-plus"></i></td>
                    </tr>
                </tbody>
            </table>
        </div>
    </div>

    <script>
        // References
        var linkUsername = document.getElementById('linkUsername');
        var linkSignOut = document.getElementById('linkSignOut');
        var header = document.getElementById('header');
        var rowAdd = document.getElementById('rowAdd');
        var currentUser = null;
```

```
        // Functions
        function getUsername() {
            let keepLoggedIn = localStorage.getItem("keepLoggedIn");

            if (keepLoggedIn == "Yes") {
                currentUser =
JSON.parse(localStorage.getItem('user'));
            }
            else {
                currentUser =
JSON.parse(sessionStorage.getItem('user'));
            }
        }

        function signOut() {
            sessionStorage.removeItem('user');
            localStorage.removeItem('user');
            localStorage.removeItem('keepLoggedIn');
            window.location = "home.html";
        }

        // Add event listener
        rowAdd.addEventListener('click', () => {
            window.location = "form.html";
        });

        // Windows load
        window.onload = function() {
            getUsername();

            if (currentUser == null) {
                linkUsername.innerText = "Create New Account";
                linkUsername.classList.replace("nav-link", "btn");
                linkUsername.classList.add("btn-light");
                linkUsername.href = "register.html";

                linkSignOut.innerText = "Log In";
                linkSignOut.classList.replace("nav-link", "btn");
                linkSignOut.classList.add("btn-secondary");
                linkSignOut.href = "login.html";
            }
            else {
                linkUsername.innerText = currentUser.username;
                linkUsername.classList.replace("btn", "nav-link");
                linkUsername.classList.remove("btn-light");
                linkUsername.href = "#";

                linkSignOut.innerText = "Sign Out";
                linkSignOut.classList.replace("btn", "nav-link");
                linkSignOut.classList.remove("btn-secondary");
                linkSignOut.href = "javascript:signOut()";
            }
        }
    </script>

    <script type="module">
        // Import the functions you need from the SDKs you need
```

```javascript
        import { initializeApp } from
"https://www.gstatic.com/firebasejs/10.12.0/firebase-app.js";

        // Your web app's Firebase configuration
        const firebaseConfig = {
            apiKey: "AIzaSyAg9iqUEOHOYA8WZFXhWVwDVRa6qw_kURw",
            authDomain: "csm3103-lab6-399fb.firebaseapp.com",
            databaseURL: "https://csm3103-lab6-399fb-default-
rtdb.asia-southeast1.firebasedatabase.app",
            projectId: "csm3103-lab6-399fb",
            storageBucket: "csm3103-lab6-399fb.appspot.com",
            messagingSenderId: "19925079351",
            appId: "1:19925079351:web:56f3bcb737a683cb2df6b2"
        };

        // Initialize Firebase
        const app = initializeApp(firebaseConfig);

        // Import the selected method from google related to Firebase-
Database
        import { getDatabase, set, get, remove, update, ref, child,
query, limitToFirst, limitToLast, orderByChild, startAt, startAfter,
endAt, endBefore, equalTo }
        from "https://www.gstatic.com/firebasejs/10.12.0/firebase-
database.js";

        // Create the holder for the database using the imported
method getDatabase()
        const db = getDatabase();

        // References
        var no = 0;
        var tbody = document.getElementById('tbody');
        var rowAdd = document.getElementById('rowAdd');

        // Functions
        function addItemToTable(name, address, phoneNo) {
            let trow = document.createElement('tr');
            let tdNo = document.createElement('td');
            let tdName = document.createElement('td');
            let tdAddress = document.createElement('td');
            let tdPhone = document.createElement('td');

            tdNo.innerHTML = ++no;
            tdName.innerHTML = name;
            tdAddress.innerHTML = address;
            tdPhone.innerHTML = phoneNo;

            trow.appendChild(tdNo);
            trow.appendChild(tdName);
            trow.appendChild(tdAddress);
            trow.appendChild(tdPhone);

            tbody.insertBefore(trow, rowAdd);
        }

        function addAllItemsToTable(people) {
            no = 0;
            people.forEach(element => {
```

```
                addItemToTable(element.name, element.address,
element.phoneNo);
            });
        }

        function getAllDataOnce() {
            //const query = query(ref(db, "People2"),
limitToFirst(6)); // can use orderByChild("name")

            get(child(ref(db), "People2"))
            .then((snapshot) => {
                var people = [];

                snapshot.forEach(childSnapshot => {
                    people.push(childSnapshot.val());
                });

                addAllItemsToTable(people);
            })
        }

        getAllDataOnce();
    </script>

</body>
</html>
```

form.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Form</title>
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.4.1/dist/css/bootstrap.
min.css" integrity="sha384-
Vkoo8x4CGsO3+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh"
crossorigin="anonymous">
</head>
<body>

    <nav class="navbar navbar-expand-lg navbar-dark bg-dark">
        <a class="navbar-brand" href="#">CSM3103</a>
        <button class="navbar-toggler" type="button" data-
toggle="collapse" data-target="#navbarSupportedContent" aria-
controls="navbarSupportedContent" aria-expanded="false" aria-
label="Toggle navigation">
            <span class="navbar-toggler-icon"></span>
        </button>

        <div class="collapse navbar-collapse"
id="navbarSupportedContent">
            <ul class="navbar-nav mr-auto">
                <li class="nav-item">
```

```
                    <a class="nav-link" href="home.html">Home</a>
                </li>
                <li class="nav-item active">
                    <a class="nav-link" href="table.html">Table<span
class="sr-only">(current)</span></a>
                </li>
            </ul>
            <form class="form-inline my-2 my-lg-0">
                <ul class="navbar-nav mr-auto">
                    <li class="nav-item mx-1">
                        <a class="nav-link" href="#"
id="linkUsername">Username</a>
                    </li>
                    <li class="nav-item mx-1">
                        <a class="nav-link" href="#"
id="linkSignOut">Sign Out</a>
                    </li>
                </ul>
            </form>
        </div>
    </nav>

    <div class="container mt-3">
        <form>
            <div class="form-group">
                <label for="inputName">Name</label>
                <input type="text" placeholder="Enter name"
id="inputName" class="form-control" required>
            </div>
            <div class="form-group">
                <label for="inputAddress">Address</label>
                <input type="text" placeholder="Enter address"
id="inputAddress" class="form-control" required>
            </div>
            <div class="form-group">
                <label for="inputPhoneNo">Phone number</label>
                <input type="text" placeholder="Enter phone number
(e.g. 01XXXXXXXXX)" id="inputPhoneNo" class="form-control" required>
            </div>
            <div class="d-flex justify-content-end">
                <button type="reset" class="btn">Clear</button>
                <button type="button" class="btn btn-dark"
id="btnSubmit">Submit</button>
            </div>
        </form>
    </div>

    <script>
        // References
        var linkUsername = document.getElementById('linkUsername');
        var linkSignOut = document.getElementById('linkSignOut');
        var currentUser = null;

        // Functions
        function getUsername() {
            let keepLoggedIn = localStorage.getItem("keepLoggedIn");

            if (keepLoggedIn == "Yes") {
```

```
                currentUser =
JSON.parse(localStorage.getItem('user'));
            }
            else {
                currentUser =
JSON.parse(sessionStorage.getItem('user'));
            }
        }

        function signOut() {
            sessionStorage.removeItem('user');
            localStorage.removeItem('user');
            localStorage.removeItem('keepLoggedIn');
            window.location = "home.html";
        }

        // Windows load
        window.onload = function() {
            getUsername();

            if (currentUser == null) {
                linkUsername.innerText = "Create New Account";
                linkUsername.classList.replace("nav-link", "btn");
                linkUsername.classList.add("btn-light");
                linkUsername.href = "register.html";

                linkSignOut.innerText = "Log In";
                linkSignOut.classList.replace("nav-link", "btn");
                linkSignOut.classList.add("btn-secondary");
                linkSignOut.href = "login.html";
            }
            else {
                linkUsername.innerText = currentUser.username;
                linkUsername.classList.replace("btn", "nav-link");
                linkUsername.classList.remove("btn-light");
                linkUsername.href = "#";

                linkSignOut.innerText = "Sign Out";
                linkSignOut.classList.replace("btn", "nav-link");
                linkSignOut.classList.remove("btn-secondary");
                linkSignOut.href = "javascript:signOut()";
            }
        }
    </script>

    <script type="module">
        // Import the functions you need from the SDKs you need
        import { initializeApp } from
"https://www.gstatic.com/firebasejs/10.12.0/firebase-app.js";

        // Your web app's Firebase configuration
        const firebaseConfig = {
            apiKey: "AIzaSyAg9iqUE0H0YA8WZFXhWVwDVRa6qw_kURw",
            authDomain: "csm3103-lab6-399fb.firebaseapp.com",
            databaseURL: "https://csm3103-lab6-399fb-default-
rtdb.asia-southeast1.firebasedatabase.app",
            projectId: "csm3103-lab6-399fb",
            storageBucket: "csm3103-lab6-399fb.appspot.com",
            messagingSenderId: "19925079351",
```

```javascript
        appId: "1:19925079351:web:56f3bcb737a683cb2df6b2"
    };

    // Initialize Firebase
    const app = initializeApp(firebaseConfig);

    // Import the selected method from google related to Firebase-
Database
    import { getDatabase, set, get, remove, update, ref, child }
    from "https://www.gstatic.com/firebasejs/10.12.0/firebase-
database.js";

    // Create the holder for the database using the imported
method getDatabase()
    const db = getDatabase();

    // References
    var inputName = document.getElementById('inputName');
    var inputAddress = document.getElementById('inputAddress');
    var inputPhoneNo = document.getElementById('inputPhoneNo');
    var btnSubmit = document.getElementById('btnSubmit');

    // Functions
    function validateInput() {
        let nameRegex = /^[a-zA-Z\s]+$/;
        let phoneNoRegex = /^01[0-9]{8,9}$/;

        if (!nameRegex.test(nameRegex.value)) {
            alert("The name should only contain alphabets!");
            return false;
        }
        if (!phoneNoRegex.test(inputPhoneNo.value)) {
            alert("Invalid phone number");
            return false;
        }

        return true;
    }

    function addData() {
        if (!validateInput()) {
            return;
        }

        set(ref(db, "People2/" + inputName.value), {
            name: inputName.value.toUpperCase(),
            address: inputAddress.value.toUpperCase(),
            phoneNo: inputPhoneNo.value
        })
        .then( () => {
            alert("Data added successfully!");
            window.location = "table.html";
        })
        .catch((error) => {
            alert(error);
        });
    };

    // Add event listener
```
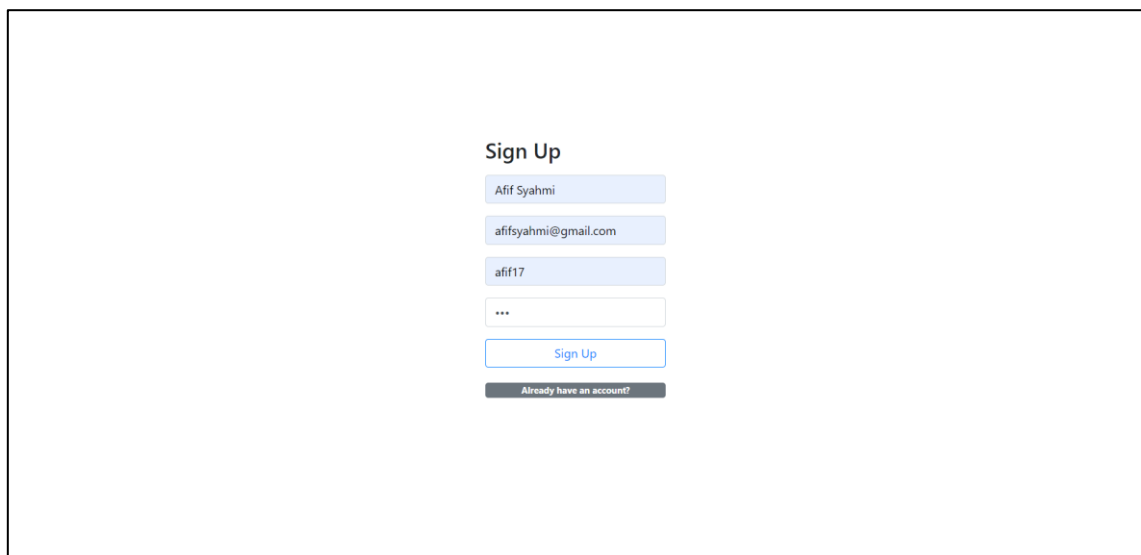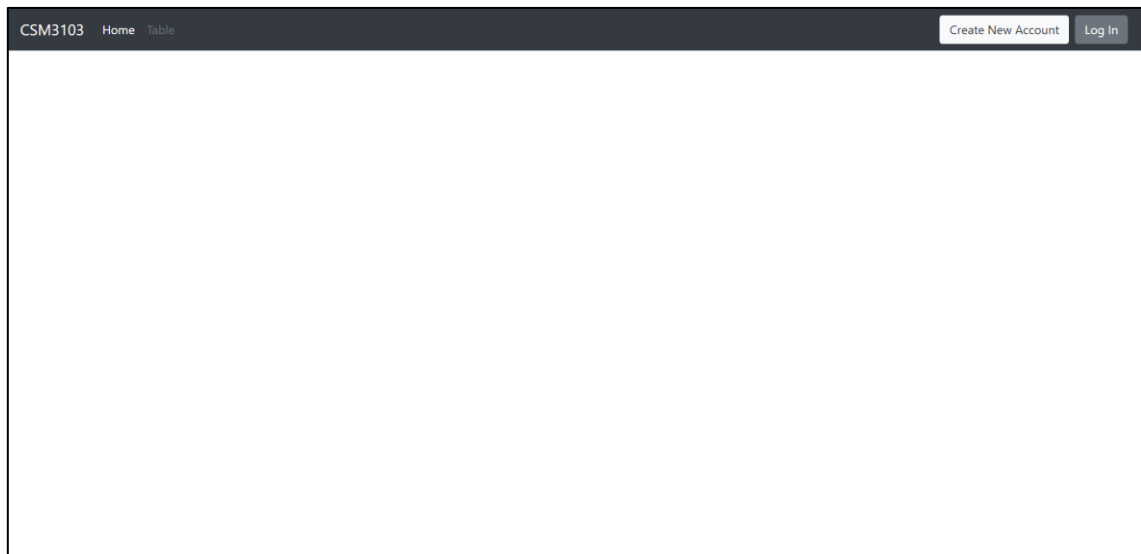
```
            btnSubmit.addEventListener('click', addData);
    </script>

</body>
</html>
```

b. Output:

This page says

Account created successfully!

OK

Sign Up

Afif Syahmi

afifsyahmi@gmail.com

afif17

•••

Sign Up

Already have an account?

Log In

afif17

•••

Keep me logged in

Log In

Create a new account

CSM3103   **Home**   Table   afif17   Sign Out

Welcome Afif Syahmi

No.	Name	Address	Phone No.
+			

Name

Afif

Address

LOT 1234, Jln Limau, Kg Limau, 23000 Dungun, Terengganu

Phone number

01123456789

Clear   Submit

Study   Entertainment

This page says

Data added successfully!

OK

Name

Afif

Address

LOT 1234, Jln Limau, Kg Limau, 23000 Dungun, Terengganu

Phone number

01123456789

Clear   Submit

Link GitHub: