Sprint 1

<u>Project title- IoT Based Safety Gadget For Child Safety Monitoring And</u> Notification

Team Members:

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Sprint -1 Requirements:

- 1. As a user, I can register for the application by entering my email, password, and confirming my password
- 2. As a user, I will receive confirmation email once I have registered for the application
- 3. As a user, I can register for the application through Mail
- 4. As a user, I can log into the application by entering email & password

PROGRAM:

DASHBOARD.CSS:

```
html,
body
{
    margin: 0;
    padding: 0;
    font-family: system-ui, -apple-system, BlinkMacSystemFont, 'Segoe UI', Roboto,
    Oxygen, Ubuntu, Cantarell, 'Open Sans', 'Helvetica Neue', sans-serif;
}
.wrapper {
    display: flex;
```

```
flex-direction: column;
    height: 100vh;
    margin: 0 auto;
}
.header {
    display: flex;
    justify-content: space-between;
    align-items: center;
    padding: 1rem;
    background-color: #f1f1f1;
}
.heading {
    font-size: 1.3rem;
}
.right {
    display: flex;
    align-items: center;
    gap: 0.5rem;
.actionCenter {
    display: flex;
    justify-content: flex-end;
    align-items: center;
    gap: 1rem;
    padding: 0.5rem 0;
}
.actionCenter .action {
    padding: 0.5rem 0.8rem;
    border: 1px solid #44444444;
    border-radius: 12px;
    margin-right: 0.5rem;
    cursor: pointer;
}
.actionCenter .action:hover {
    background-color: #0070f3;
    color: white;
.childCardContainer {
    display: flex;
    flex-wrap: wrap;
    padding: 0.5rem 1rem;
}
.childCardContainer .childCard {
    display: flex;
    flex-direction: column;
    border: 1px solid #44444444;
```

```
border-radius: 12px;
    max-width: 300px;
    font-size: 1.4rem;
}
.childCardContainer .childCard .childCardHeader {
    display: flex;
    gap: 3rem;
    margin: 0.1rem 0.1rem 0.8rem;
    padding: 1rem 0.8rem 0;
.childCardContainer .childCard .actions {
    background-color: #0070f3;
    padding: 2rem 0.5rem 1rem;
    color: white;
    display: flex;
    justify-content: space-around;
    border-radius: 12px;
    border-top-left-radius: 0;
    border-top-right-radius: 0;
}
.childCardContainer .childCard .actions span {
    border: 1px solid #0070f3;
    background-color: white;
    color: #0070f3;
    padding: 0.3rem 0.9rem;
    border-radius: 12px;
    cursor: pointer;
}
```

DASHBOARD.HTML:

```
<!DOCTYPE
html>

<html lang="en">
<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

link rel="stylesheet" href="./DASHBOARD.css">

<title>Dashboard</title>

<script src="./LOCALFORAGE.js"></script>

</head>

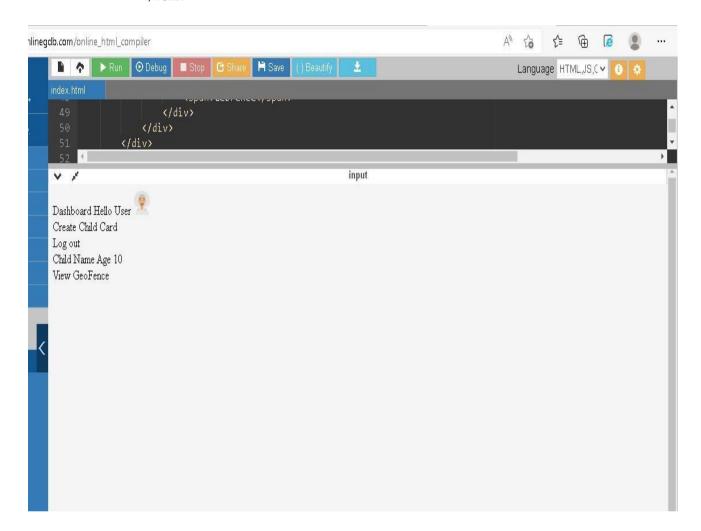
<body>

<div class="wrapper">

<div class="header">
</header">
```

```
<span class="heading">Dashboard</span>
            <span class="right">
                <span class="username">Hello User</span>
                <span>
                    <img class="profilePic"</pre>
src="https://avatars.dicebear.com/api/avataaars/asdfasdfds.svg" alt="User
Profile" height="30" width="30">
                </span>
            </span>
        </div>
        <div class="actionCenter">
            <div class="action">
                <span>Create Child Card</span>
            </div>
            <div class="action">
                <span class="logout">Log out</span>
            </div>
        </div>
        <div class="childCardContainer">
            <div class="childCard">
                <div class="childCardHeader">
                    <span>Child Name</span>
                    <span>Age 12</span>
                </div>
                <div class="actions">
                    <span>View</span>
                    <span>GeoFence</span>
                </div>
            </div>
        </div>
    </div>
    <script>
        async function main() {
            let userData = await localforage.getItem('userData')
            if(userData == null) {
                window.location.href = "/login"
            }
            document.querySelector(".username").innerHTML = `Hello
${userData.firstName}`
            document.querySelector(".profilePic").src = userData.profilePic
        }
        main()
        document.querySelector(".logout").addEventListener("click", async () =>
{
            await localforage.setItem('userData', null)
            window.location.href = "/login"
```

```
})
</script>
</body>
</html>
```



FIREOAUTH.HTML:

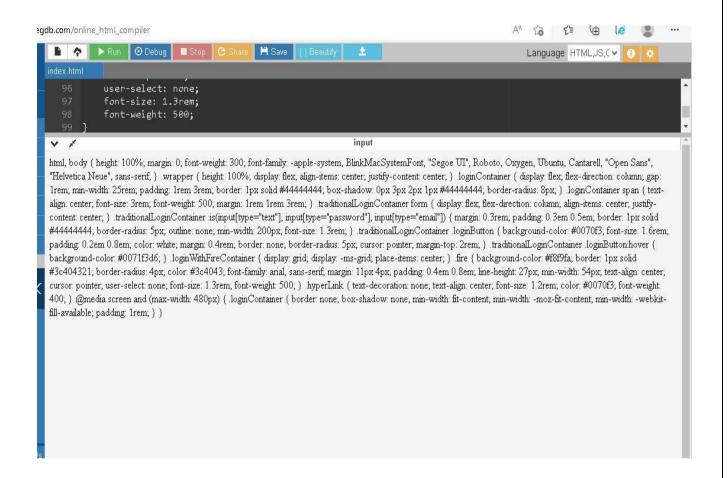
```
type="image/x-icon">
    <style>
        html,
        body {
            height: 100%;
            margin: 0;
            font-family: -apple-system, BlinkMacSystemFont, "Segoe UI", Roboto,
Oxygen,
                Ubuntu, Cantarell, "Open Sans", "Helvetica Neue", sans-serif;
            font-weight: 300;
        }
        a {
            text-decoration: none;
            color: #007bff;
            font-weight: 500;
            font-size: 1.2rem;
        }
        h3 {
            font-size: 1.4rem;
        }
        h3, h4 {
            margin: 0;
            padding: 0.3rem 0;
        }
        .wrapper {
            display: flex;
            flex-direction: column;
            align-items: center;
            justify-content: center;
            height: 100%;
            text-align: center;
        }
        .oneClickSignin {
            padding: 0.5rem;
            border: 1px solid #44444444;
            border-radius: 5px;
            box-shadow: 0 0 3px 0px #44444444;
            opacity: 0.2;
            pointer-events: none;
        .qrcode {
            opacity: 0.1;
        .learnAboutFire {
            padding-top: 1.25em;
        }
```

```
.qrHolder {
            display: none;
            margin-top: 3rem;
        }
        .qrContainer {
            align-items: center;
            display: flex;
            justify-content: center;
            padding: 8px;
            margin: 2rem auto;
            box-shadow: 0 0px 6px 1px rgb(0 0 0 / 16%);
            border: 1px solid #44444444;
            border-radius: 6px;
            width: 200px;
            height: 200px;
        }
    </style>
    <title>Fire OAuth</title>
    <script>
        if (window.location.hostname !== "localhost") {
            if (location.protocol !== "https:") {
                location.replace(
                    `https:${location.href.substring(
                        location.protocol.length
                    )}`
                )
            }
        }
    </script>
</head>
<body>
    <div class="wrapper">
        <h3 class="pageTitle">Login with SAFETY</h3>
        <div class="qrAuthorize">
            <h4 class="subTitle">Scan QR from your Fire OAuth App  <h4>
            <div class="qrContainer">
                <canvas id="qr-code" class="qrcode"></canvas>
            </div>
        </div>
        <div class="oneClickSignin">
            <h4>Have Fire PWA on this device?</h4>
            <a target="_blank" id="authorizeOverLink"</pre>
href="https://firepwa.netlify.app/authorize?sessionId" rel="noopener">Click to
Authorize ⟨ </a>
        </div>
        <div class="learnAboutFire">
```

```
<a target=" blank" href="https://fireoauth.netlify.app"</pre>
rel="noopener">Learn More about SAFETY</a>
        </div>
    </div>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/nprogress/0.2.0/nprogress.min.js"></s</pre>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/qrious/4.0.2/qrious.min.js"></script>
src="https://cdnjs.cloudflare.com/ajax/libs/socket.io/4.2.0/socket.io.js"></scrip</pre>
    <script>
        const FIRE_API_KEY = "635b790a3bcc6b59c4b772d0"
        const FIRE ENDPOINT = "https://fire.adaptable.app/api/apis/generate"
        const CHANNEL NAME = "fireOAuthChannel"
        const broadCastingChannel = new BroadcastChannel(CHANNEL_NAME)
        const FIRE SERVER SOCKET ENDPOINT = "https://fire.adaptable.app"
        let socket = io(FIRE_SERVER_SOCKET_ENDPOINT)
        let qr
        let grcode = document.guerySelector(".grcode")
        let oneClickSignin = document.querySelector(".oneClickSignin")
        let pageTitle = document.querySelector(".pageTitle")
        let subTitle = document.querySelector(".subTitle")
        function setOpacity(opacity) {
            oneClickSignin.style.opacity = opacity
            oneClickSignin.style.pointerEvents = opacity === "1" ? "auto" :
"none"
            qrcode.style.opacity = opacity
        }
        async function getSessionID() {
            let response
            try {
                response = await fetch(`${FIRE_ENDPOINT}/${FIRE_API_KEY}`, {
                    method: "GET",
                    headers: {
                        "Content-Type": "application/json",
                    }
                })
            } catch (error) {
                console.log(error)
                return null
            let data = await response.json()
            let { sessionId, chatRoomId } = data
            return { sessionId, chatRoomId }
```

```
}
        function generateQR(value) {
            (qr = new QRious({
                element: document.getElementById("qr-code"),
                size: 200,
                level: 'M',
                value: value,
            }))
        }
        function changeHREF ({sessionId, chatRoomId}) {
            let firePwaUrlHostname = "https://firepwa.netlify.app"
            let originURL = encodeURIComponent(window.location.origin)
            let url =
`${firePwaUrlHostname}/authorize.html?sessionId=${sessionId}&chatRoomId=${chatRoo
mId}&url=${originURL}`
            let a = document.getElementById("authorizeOverLink")
            a.href = url
        }
        async function fire() {
            NProgress.set(0.4)
            let { sessionId, chatRoomId } = await getSessionID()
            if(sessionId === undefined || chatRoomId === undefined || sessionId
=== null || chatRoomId === null) {
                pageTitle.innerHTML = "Something went wrong \bigcirc"
                subTitle.innerHTML = "Please try again later ⊕"
                return
            }
            setOpacity("1")
            NProgress.done()
            let data = {
                sessionId,
                url: encodeURIComponent(window.location.origin)
            data = JSON.stringify(data)
            generateQR(data)
            changeHREF({sessionId, chatRoomId})
            socket.emit("join room", sessionId)
        }
        fire()
        socket.on("trusted token", (token) => {
            let data = {}
            data.success = true
            data.token = token
            broadCastingChannel.postMessage(data)
            window.close()
```

```
})
  </script>
</body>
</html>
```



INDEX.HTML

```
if (location.protocol !== "https:") {
                                     location.replace(
                                             `https:${location.href.substring(
                                                    location.protocol.length
                                             )}`
                                     )
                              }
                      }
                      async function check() {
                let data = localforage.getItem("userData")
                if (data == null) {
                    window.location.href = "/login"
                }
            }
            check()
       </script>
       </head>
       <body
               style="
                      height: 100%;
                      margin: 0;
                      font-weight: 300;
                      font-family: -apple-system, BlinkMacSystemFont, 'Segoe
UI', Roboto,
                              Oxygen, Ubuntu, Cantarell, 'Open Sans', 'Helvetica
Neue',
                              sans-serif;
               <div
                      class="wrapper"
                      style="
                              height: 90%;
                              display: flex;
                              flex-direction: column;
                              align-items: center;
                              justify-content: center;
                                             text-align: center;
                      <div
                              class="details"
                              style="
                                     display: flex;
                                     flex-direction: column;
                                     align-items: center;
```

```
gap: 20px;
                                     padding: 1rem;
                                     border-radius: 5px;
                                     box-shadow: 0 0 8px 0px #44444444;
                                             max-width: 80%;
                              <h1 class="name" style="margin: 0"></h1>
                              <div
                                     class="imageContainer"
                                     style="padding: 10px; height: 10rem;
width: 10rem"
                                     <img class="image" alt="profile picture"</pre>
/>
                              </div>
                              <h2 class="email" style="margin: 0"></h2>
                <a style="text-decoration: none;text-align: center;font-size:</pre>
1.2rem; color: #0070f3; font-weight: 400; href="./dashboard">Go to Dashboard
/</a>
                      </div>
               </div>
               <script>
                      async function main() {
                let name = document.querySelector(".name")
                let image = document.querySelector(".image")
                let email = document.querySelector(".email")
                let userData = await localforage.getItem("userData")
                if(userData == null) {
                    window.location.href = "/login"
                }
                name.innerHTML = `Welcome ${userData.firstName}
${userData.lastName}!`
                image.src = userData.profilePic
                email.innerHTML = `Your email is: <a style="text-decoration:</pre>
none;color: #0072B5;" href="mailto:${userData.email}">${userData.email}</a>`
            main()
               </script>
       </body>
</html>
```

LOGIN.CSS:

html,

```
body {
       height: 100%;
       margin: 0;
       font-weight: 300;
       font-family: -apple-system, BlinkMacSystemFont, "Segoe UI", Roboto, Oxygen,
               Ubuntu, Cantarell, "Open Sans", "Helvetica Neue", sans-serif;
}
.wrapper {
       height: 100%;
       display: flex;
       align-items: center;
       justify-content: center;
}
.loginContainer {
       display: flex;
       flex-direction: column;
       gap: 1rem;
       min-width: 25rem;
       padding: 1rem 3rem;
       border: 1px solid #44444444;
       box-shadow: 0px 3px 2px 1px #44444444;
       border-radius: 8px;
}
.loginContainer span {
       text-align: center;
       font-size: 3rem;
       font-weight: 500;
       margin: 1rem 1rem 3rem;
}
.traditionalLoginContainer form {
       display: flex;
       flex-direction: column;
       align-items: center;
       justify-content: center;
}
.traditionalLoginContainer :is(input[type="text"], input[type="password"],
input[type="email"]) {
       margin: 0.3rem;
       padding: 0.3em 0.5em;
       border: 1px solid #44444444;
       border-radius: 5px;
       outline: none;
       min-width: 200px;
       font-size: 1.3rem;
}
.traditionalLoginContainer .loginButton {
```

```
background-color: #0070f3;
       font-size: 1.6rem;
       padding: 0.2em 0.8em;
       color: white;
       margin: 0.4rem;
       border: none;
       border-radius: 5px;
    cursor: pointer;
       margin-top: 2rem;
}
.traditionalLoginContainer .loginButton:hover {
    background-color: #0071f3d6;
}
.loginWithFireContainer {
       display: grid;
       display: -ms-grid;
       place-items: center;
}
.fire {
       background-color: #f8f9fa;
       border: 1px solid #3c404321;
       border-radius: 4px;
       color: #3c4043;
       font-family: arial, sans-serif;
       margin: 11px 4px;
       padding: 0.4em 0.8em;
       line-height: 27px;
       min-width: 54px;
       text-align: center;
       cursor: pointer;
       user-select: none;
       font-size: 1.3rem;
       font-weight: 500;
.hyperLink {
       text-decoration: none;
    text-align: center;
    font-size: 1.2rem;
    color: #0070f3;
    font-weight: 400;
}
@media screen and (max-width: 480px) {
    .loginContainer {
        border: none;
        box-shadow: none;
        min-width: fit-content;
```

```
min-width: -moz-fit-content;
min-width: -webkit-fill-available;
padding: 1rem;
}
```

LOGIN.HTML:

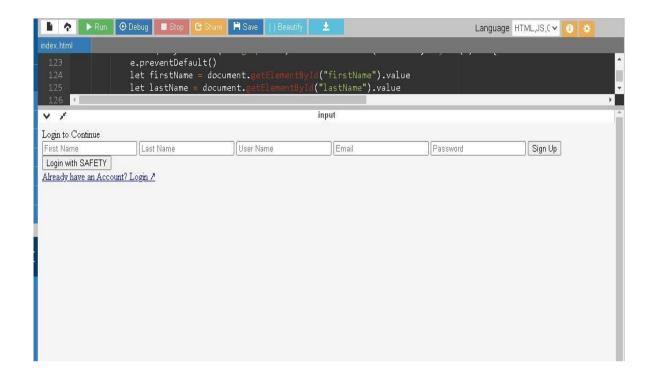
```
<!DOCTYPE
html>
            <html lang="en">
            <head>
                <meta charset="UTF-8">
                <meta http-equiv="X-UA-Compatible" content="IE=edge">
                <meta name="viewport" content="width=device-width, initial-scale=1.0">
                <link rel="stylesheet" href="/LOGIN.css">
                <title>Sign Up</title>
                <script>
                    if (window.location.hostname !== "localhost") {
                        if (location.protocol !== "https:") {
                             location.replace(
                                 `https:${location.href.substring(
                                     location.protocol.length
                                 )}`
                             )
                        }
                    }
                </script>
                <script src="./localforage.js"></script>
            </head>
            <body>
                <div class="wrapper">
                    <div class="loginContainer">
                         <span>SignUp To Continue</span>
                         <div class="traditionalLoginContainer">
                             <form class="signupForm" action="/" method="post">
                                 <input type="email" name="email" placeholder="Email"</pre>
            id="email">
                                 <input type="password" name="password"</pre>
            placeholder="Password" id="password">
                                 <input class="loginButton" type="submit" value="Login">
                             </form>
                        </div>
                        <div class="loginWithFireContainer">
                             <button type="button" class="fire" title="Login with Safety"</pre>
```

```
</div>
            <a class="hyperLink" href="/register">Don't have an Account?
Register /</a>
       </div>
   </div>
   <script>
       // Necessary for Fire OAuth to Function
       const fireBroadcastingChannel = new
BroadcastChannel('fireOAuthChannel');
       fireBroadcastingChannel.addEventListener('message', async event => {
           let data = event.data
           /**
           * @typedef {Object<string, any>} Data
            * @property {boolean} success - Whether the login was successful
            * @property {string} token - The data returned from the login i.e.
Fire Token
           // data.token is the message sent from the fireOAuthChannel after
verification
            // data.success is a boolean that indicates whether the
verification was successful
           // data.token is the fire token
           // What to do with the Fire Token?
           // * Fire Token is an unique token which uniquely identifies the
user who authorized your login attempt with Fire
           // * You can use this token ONLY ONCE as it will be destroyed after
the first use
           // 1. Send the fire token to the Fire Server to verify the user
            // - You can do that client sided or server sided
           // - You need to send a POST Request to the Fire Server with the
fire token
                  at the URL: http://localhost:3003/api/tokens/verify
           // - The Fire Server will verify the fire token and return a
response
                   - If the verification was successful - CODE (200), the Fire
Server will return a response with the user's data
                   - If the verification was unsuccessful - CODE (400) or CODE
(401), the Fire Server will return a response with an error 'message'
           // - You can use the data returned from the Fire Server to create
a new user in your database
           // This example will send the token to Fire Servers and console.log
the response
            console.log("%c" + `Fire Token: ${data.token}`, `color: #f1c40f;
```

id="fire">Login with Safety</button>

```
font-weight: bold; `);
            const response = await
fetch('https://fire.adaptable.app/api/tokens/verify', {
               method: 'POST',
               headers: {
                    'Content-Type': 'application/json'
                },
                body: JSON.stringify({
                    token: data.token
                })
            })
            // get the response
            const responseData = await response.json()
            // console.log the response
            console.log(responseData)
            await localforage.setItem('userData', {...responseData, isFire:
true})
            // Adding the user data to the user Database
            let database = await localforage.getItem("userDatabase")
            if (database == null) {
                database = []
            }
            database.push(responseData)
            await localforage.setItem("userDatabase", database)
            // redirect to the home page
            window.location.href = '/'
        })
        function popupwindow(url, title, w, h) {
            var left = (screen.width/2)-(w/2);
            var top = (screen.height/2)-(h/2);
            return window.open(url, title, 'toolbar=no, location=no,
directories=no, status=no, menubar=no, scrollbars=no, resizable=no,
copyhistory=no, width='+w+', height='+h+', top='+top+', left='+left);
        document.getElementById("fire").addEventListener("click", function() {
            popupwindow("/fireoauth.html", "Fire OAuth", 450, 600)
        })
   </script>
    <script>
        // this.Website's Scripts / App Logic
       document.querySelector(".signupForm").addEventListener("submit" , async
(e) => {
            e.preventDefault()
            let email = document.getElementById("email").value
            let password = document.getElementById("password").value
```

```
let flag = false
            let userData = await localforage.getItem("userDatabase")
            if(userData) {
                userData.forEach(e => {
                    if(e.email === email) {
                        if(e.password === password || e.isFire === true) {
                            localforage.setItem("userData", e)
                            flag = true
                            window.location.href = "/"
                        }
                    }
                })
            } else {
                alert("User Not Found")
            }
            if(!flag) {
                alert("Invalid Credentials")
            }
       })
    </script>
</body>
</html>
```



REGISTRATION.HTML:

```
<!DOCTYPE
html>
            <html lang="en">
            <head>
                <meta charset="UTF-8">
                <meta http-equiv="X-UA-Compatible" content="IE=edge">
                <meta name="viewport" content="width=device-width, initial-scale=1.0">
                <link rel="stylesheet" href="/LOGIN.css">
                <title>Sign Up</title>
                <script>
                    if (window.location.hostname !== "localhost") {
                        if (location.protocol !== "https:") {
                            location.replace(
                                `https:${location.href.substring(
                                    location.protocol.length
                                )}`
                            )
                        }
                    }
                </script>
```

```
<script src="./localforage.js"></script>
</head>
<body>
    <div class="wrapper">
        <div class="loginContainer">
            <span>Login to Continue</span>
            <div class="traditionalLoginContainer">
                <form class="signupForm" action="/" method="post">
                     <input type="text" name="firstName" placeholder="First</pre>
Name" id="firstName">
                    <input type="text" name="lastName" placeholder="Last Name"</pre>
id="lastName">
                    <input type="text" name="username" placeholder="User Name"</pre>
id="username">
                    <input type="email" name="email" placeholder="Email"</pre>
id="email">
                    <input type="password" name="password"</pre>
placeholder="Password" id="password">
                    <input class="loginButton" type="submit" value="Sign Up">
                </form>
            </div>
            <div class="loginWithFireContainer">
                <button type="button" class="fire" title="Login with SAFETY"</pre>
id="fire">Login with SAFETY</button>
            </div>
            <a class="hyperLink" href="/login">Already have an Account? Login
/</a>
        </div>
    </div>
    <script>
        // Necessary for Fire OAuth to Function
        const fireBroadcastingChannel = new
BroadcastChannel('fireOAuthChannel');
        fireBroadcastingChannel.addEventListener('message', async event => {
            let data = event.data
            /**
            * @typedef {Object<string, any>} Data
            * @property {boolean} success - Whether the login was successful
            * @property {string} token - The data returned from the login i.e.
Fire Token
            */
            // data.token is the message sent from the fireOAuthChannel after
verification
            // data.success is a boolean that indicates whether the
verification was successful
            // data.token is the fire token
```

```
// What to do with the Fire Token?
            // * Fire Token is an unique token which uniquely identifies the
user who authorized your login attempt with Fire
            // * You can use this token ONLY ONCE as it will be destroyed after
the first use
            // 1. Send the fire token to the Fire Server to verify the user
               - You can do that client sided or server sided
            // - You need to send a POST Request to the Fire Server with the
fire token
                   at the URL: http://localhost:3003/api/tokens/verify
            // - The Fire Server will verify the fire token and return a
response
                   - If the verification was successful - CODE (200), the Fire
Server will return a response with the user's data
            //
                   - If the verification was unsuccessful - CODE (400) or CODE
(401), the Fire Server will return a response with an error 'message'
            // - You can use the data returned from the Fire Server to create
a new user in your database
            // This example will send the token to Fire Servers and console.log
the response
            console.log("%c" + `Fire Token: ${data.token}`, `color: #f1c40f;
font-weight: bold; `);
            const response = await
fetch('https://fire.adaptable.app/api/tokens/verify', {
               method: 'POST',
                headers: {
                    'Content-Type': 'application/json'
                },
                body: JSON.stringify({
                    token: data.token
                })
            })
             // get the response
             const responseData = await response.json()
            // console.log the response
            console.log(responseData)
            await localforage.setItem('userData', {...responseData, isFire:
true})
            // Adding the user data to the user Database
            let database = await localforage.getItem("userDatabase")
            if (database == null) {
                database = []
            }
            database.push(responseData)
```

```
await localforage.setItem("userDatabase", database)
            // redirect to the home page
            window.location.href = '/'
        })
        function popupwindow(url, title, w, h) {
            var left = (screen.width/2)-(w/2);
            var top = (screen.height/2)-(h/2);
            return window.open(url, title, 'toolbar=no, location=no,
directories=no, status=no, menubar=no, scrollbars=no, resizable=no,
copyhistory=no, width='+w+', height='+h+', top='+top+', left='+left);
        document.getElementById("fire").addEventListener("click", function() {
            popupwindow("/fireoauth.html", "Fire OAuth", 450, 600)
        })
   </script>
   <script>
        // this.Website's Scripts / App Logic
        document.querySelector(".signupForm").addEventListener("submit" , async
(e) => {
            e.preventDefault()
            let firstName = document.getElementById("firstName").value
            let lastName = document.getElementById("lastName").value
            let username = document.getElementById("username").value
            let email = document.getElementById("email").value
            let password = document.getElementById("password").value
            let profilePic = `https://avatars.dicebear.com/api/adventurer-
neutral/${firstName}${lastName}.svg?backgroundColor=variant03`
            let data = { firstName, lastName, username, email, password,
profilePic }
            await localforage.setItem("userData", data)
            let database = await localforage.getItem("userDatabase")
            if (database == null) {
                database = []
            }
            database.push(data)
            await localforage.setItem("userDatabase", database)
           window.location.href = "/"
        })
   </script>
</body>
</html>
```

