Creating Your First “To-Do” Item

This lesson explains how to add to-do list items to the Cloud Firestore database.

We'll cover the following

Enable Cloud Firestore

Start by initializing Cloud Firestore in your project. When doing this, please remember that you need to set your security rules to *test mode*. This was covered in the second section of this course if you need a refresher. I will show you how to secure the database in the upcoming lesson **Cloud Firestore security**.

To-do List Item Form

We create a form that will add to-do items.

```
        <!-- Dashboard -->
        <div id="dashboard" class="hide-when-signed-out">

                <div>
                        <form id="to-do-list-form">
                                <h1>New task</h1>
                                <input type="text" id="item" placeholder="Task" , required autocom
                                <button type="submit">Add</button>
                        </form>
                </div>

                <div>
                        placeholder
                </div>

                <div>
                        <div id="account">
                                <h1>Account</h1>
                                <button class="auth" auth="sign-out">sign out</button>
                        </div>
                </div>

        </div>
```

HTML

Styling the form button

```
#to-do-list-form > button {
    max-width: 150px;
    margin-top: 30px;
}
```

Container For to-do Items

We create an HTML div element that will serve as your injection point for all of your to-do items. We give it an ID of `to-do-list-items`.

```
<!-- Dashboard -->
<div id="dashboard" class="hide-when-signed-out">

        <div>
                <form id="to-do-list-form">
                        <h1>New task</h1>
                        <input type="text" id="item" placeholder="Task" , required autocom
                        <button type="submit">Add</button>
                </form>
        </div>

        <div>
                <h1>To do list</h1>
                <div id="to-do-list-items"></div>
        </div>

        <div>
                <div id="account">
                        <h1>Account</h1>
                        <button class="auth" auth="sign-out">sign out</button>
                </div>
        </div>

</div>
```

HTML

Real-time Listener for to-do Items

Setting up the real-time listener right now is a good idea because once to-do items are added, we will see them immediately. We are going to place this real-time listener in the authentication state listener because the script will run once a user is authenticated. We need to know who the user is in order to make this work.

```
db.collection('to-do-lists').doc(uid).collection('my-list')
                .onSnapshot(snapshot => {
                        // generate to-do item and delete button for each entry in your collection
                });
```

JavaScript

Generate to-do Items

As we loop through our collection, `my-list`, we will create a paragraph and fill it with text from each document.

```
db.collection('to-do-lists').doc(uid).collection('my-list')
                .onSnapshot(snapshot => {
                        document.getElementById('to-do-list-items').innerHTML = '';
                        // loop throug all document in the my-list collection
                        snapshot.forEach(element => {
                                // creat a paragraph for each item
                                let p = document.createElement('p');
                                // fill the paragrahp with the text of the to-do
                                p.textContent = element.data().item;
                                // append the paragraph as they are made to the DOM using the elem
                                document.getElementById('to-do-list-items').appendChild(p);
                        });
                });
```

JavaScript

Access to-do Item Add Form

Before we can add items, we will need to get access to the form HTML element with the id of `to-do-list-form`.

```
// Get the to do list form for item submissions
const toDoListForm = document.getElementById('to-do-list-form');
```

JavaScript

Submit Event and Database Entry

In earlier lessons, we covered submit events and database entries. The only

In earlier lessons, we covered submit events and database entries. The only difference with the following code is that it's adding a document and setting the key of the new document as the UID of the user who stores it.

```javascript
// Add to-do item submit event
toDoListForm.addEventListener('submit', event => {
        event.preventDefault()
        // Send value to Firebase
        db.collection('to-do-lists').doc(uid).collection('my-list').add({
                // Grab value from from form
                item: document.getElementById('item').value,
        });
        // reset form
        toDoListForm.reset()
});
```

JavaScript

To-Do List Application

Run the code below and add a few to-do items.

This code requires the following API keys to execute:

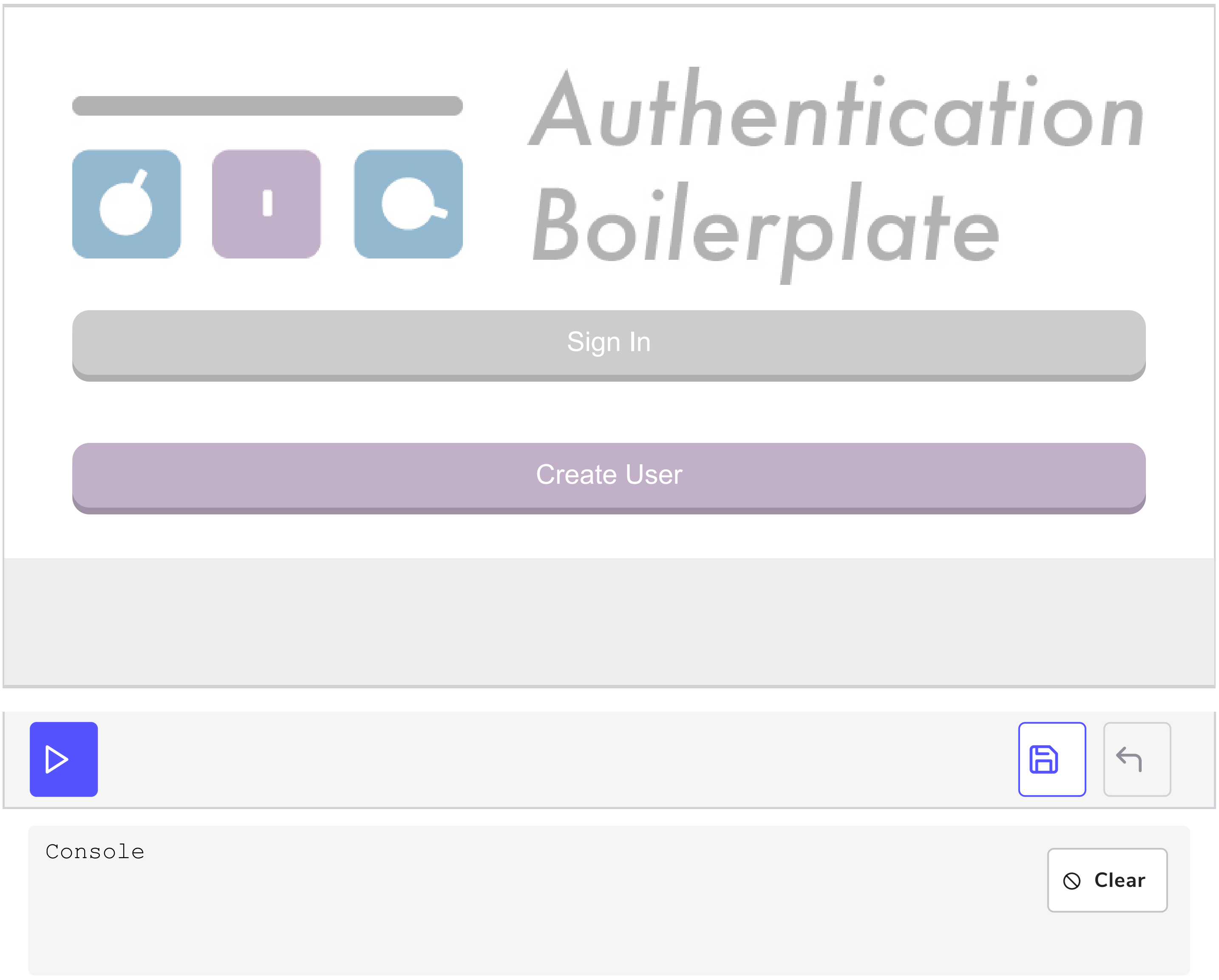
apiKey	Not Specified...
authDomain	Not Specified...
databaseURL	Not Specified...
projectId	Not Specified...
storageBucket	Not Specified...
messagingSenderId	Not Specified...
appId	Not Specified...

Output

JavaScript

HTML

CSS (SCSS)



In the next lesson, I will show you how to delete to-do items. Think of removing them from your list as your way of ‘completing’ them.