Showing Images in the Browser

In this lesson, you will learn how to show images you uploaded to Firebase Storage in your app. After each upload, we will take the download URL and place it in Cloud Firestore. Then we will make a database listener for that collection. That is the final step that allows us to show the images to the user in the browser.

WE'LL COVER THE FOLLOWING

Add Cloud Firestore

We need a way to keep track of files we want to show the user so we will use the Cloud Firestore database for this. Add the CDN script to the head of your HTML file.

```html
<head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <meta http-equiv="X-UA-Compatible" content="ie=edge">
        <title>Image Sharing Application</title>
        <link rel="stylesheet" href="styles.css">
        <script src="https://www.gstatic.com/firebasejs/6.3.0/firebase-app.js"></script>
        <script src="https://www.gstatic.com/firebasejs/6.3.0/firebase-storage.js"></script>
        <script src="https://www.gstatic.com/firebasejs/6.3.0/firebase-firestore.js"></script
</head>
```

HTML

Where the images get placed

We make a `div` that holds all the images. We will inject are images into this div soon.

```
<div id="container">

                <div id="progress-container">
                        <progress max="100"></progress>
                </div>

                <div id="images"></div>

                <div class="buttons-grid">
                        <div>
                                <input type="file" id="upload-button">
                        </div>
                </div>

</div>
```

HTML

Push the Image URL to Firestore

When files or images get uploaded to Firebase Storage, we will store a reference to them in Cloud Firestore.

We will insert the code inside `.then()` of the `getDownloadURL()`.

```
// Every time we upload a image we also need to add a reference to the database
firebase.firestore().collection('images').add({
  url: url
})
.then(success => console.log(success))
.catch(error => console.log(error))
```

JavaScript

Configure the Cloud Firebstore database listener

We use a Firebase query to make a real-time listener of the **images** collection. We will get a snapshot back to which we attach a `forEach` loop. Inside `forEach`, we create `img` element dynamically with JavaScript using data coming from Cloud Firestore as the source of the image.

```
// listen to database in the images collection. Loop through returned data to create image el
firebase.firestore().collection('images').onSnapshot(snapshot => {
        document.querySelector('#images').innerHTML = ""
        snapshot.forEach(each => {
                console.log(each.data().url);
                let div = document.createElement('div')
                let image = document.createElement('img')
                image.setAttribute('src', each.data().url)
                div.append(image)

                document.querySelector('#images').append(div)
        })
})
```

JavaScript

Grid and styling

The images will possibly be different sizes if uploaded by many users so lets put them in a `grid` and set `width = 100%`. This will ensure that their width will constrain to the grid giving us some consistency and keep our application looking good.

```
img{
    width: 100%;
}

#images{
    display: grid;
    grid-template-columns: 1fr 1fr 1fr;
    grid-gap: 30px;
    margin-bottom: 25px;
}

#images > div {
    background-color: #EFEFEF;
    padding: 10px;
    border-radius: 10px;
}
```

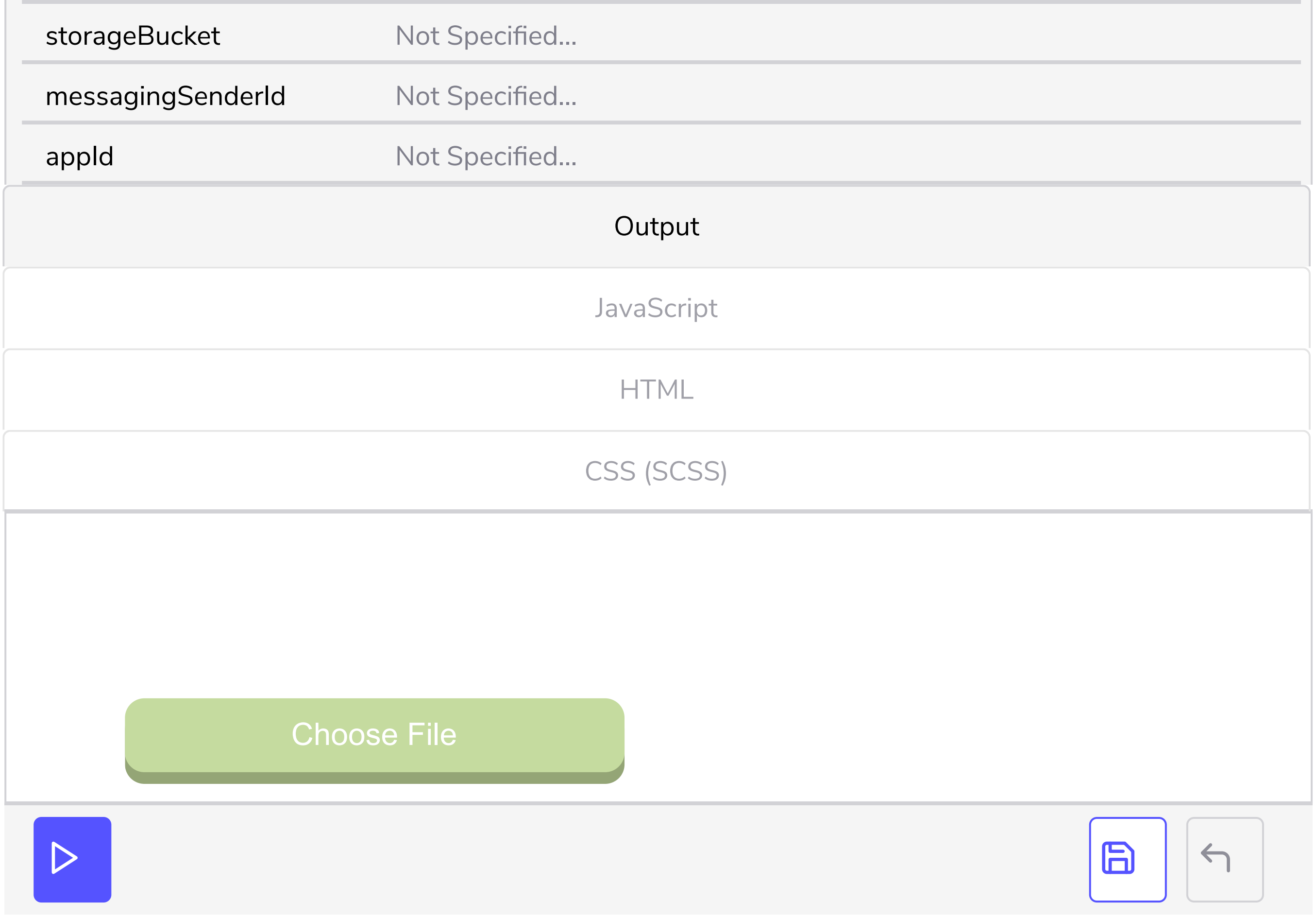
CSS

The Photo Sharing Application

Press the **Run** button to see how our real-time listener shows every uploaded image. Add a few new images to see it in action!

This code requires the following keys to execute:

Key:	Value:
apiKey	Not Specified...
authDomain	Not Specified...
databaseURL	Not Specified...
projectId	Not Specified...



storageBucket	Not Specified...
messagingSenderId	Not Specified...
appId	Not Specified...

In the next lesson, I am going to show you how to remove all the images from the database by deleting the entire collection.