Frontend Exercise

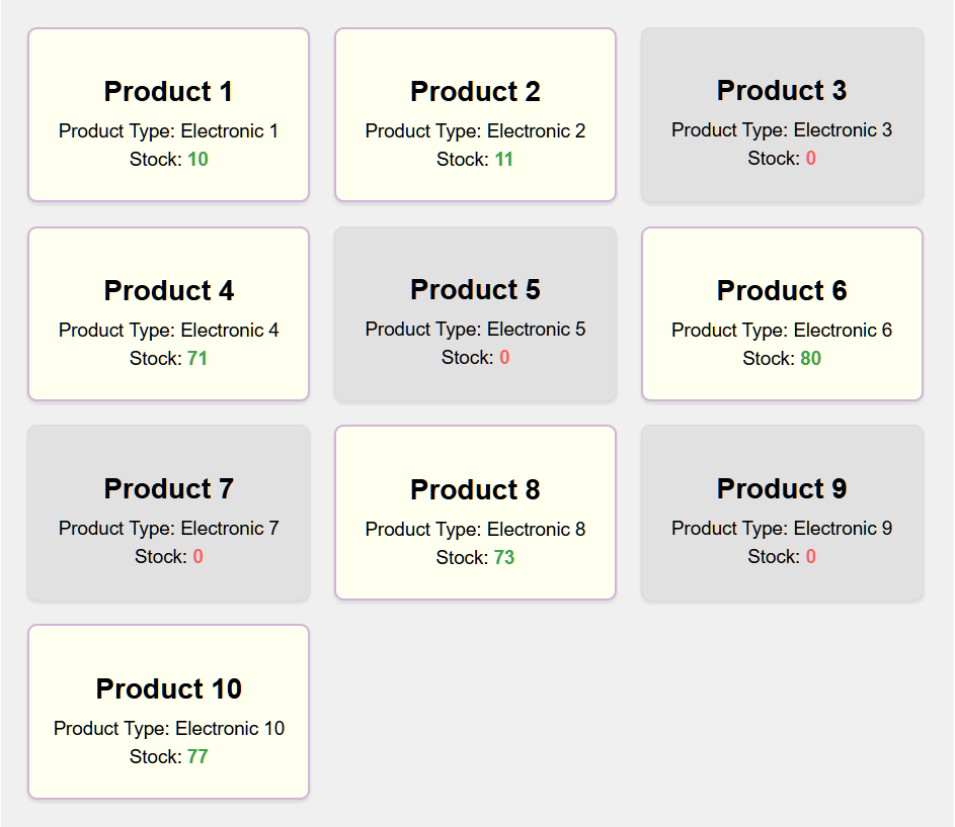
For this **frontend profiling exercise** we have the following first code below, which needs to be copied and pasted into an index.html file and then run with the Chrome browser:

```
<!DOCTYPE html>
<html lang="es">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Profiling Frontend</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            display: flex;
            justify-content: center;
            background-color: #f4f4f4;
        }

        .container {
            display: grid;
            grid-template-columns: repeat(3, 1fr);
            gap: 20px;
            padding: 20px;
        }

        .product-card {
            background-color: #fff;
            border: 1px solid #ddd;
            border-radius: 8px;
            box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
            padding: 20px;
            text-align: center;
        }

        .product-name {
            font-size: 1.5em;
            margin-bottom: 10px;
        }

        .product-type,
        .stock {
            font-size: 1em;
            margin: 5px 0;
        }

        .stock span {
            font-weight: bold;
        }

        .in-stock:hover {
            cursor: pointer;
            scale: 1.1;
        }
    </style>
```

```
</head>

<body>

    <div class="container">
        <div class="product-card">
            <h2 class="product-name">Product 1</h2>
            <p class="product-type">Product Type: Electronic 1</p>
            <p class="stock">Stock: <span>10</span></p>
        </div>
        <div class="product-card">
            <h2 class="product-name">Product 2</h2>
            <p class="product-type">Product Type: Electronic 2</p>
            <p class="stock">Stock: <span>11</span></p>
        </div>
        <div class="product-card">
            <h2 class="product-name">Product 3</h2>
            <p class="product-type">Product Type: Electronic 3</p>
            <p class="stock">Stock: <span>0</span></p>
        </div>
        <div class="product-card">
            <h2 class="product-name">Product 4</h2>
            <p class="product-type">Product Type: Electronic 4</p>
            <p class="stock">Stock: <span>71</span></p>
        </div>
        <div class="product-card">
            <h2 class="product-name">Product 5</h2>
            <p class="product-type">Product Type: Electronic 5</p>
            <p class="stock">Stock: <span>0</span></p>
        </div>
        <div class="product-card">
            <h2 class="product-name">Product 6</h2>
            <p class="product-type">Product Type: Electronic 6</p>
            <p class="stock">Stock: <span>80</span></p>
        </div>
        <div class="product-card">
            <h2 class="product-name">Product 7</h2>
            <p class="product-type">Product Type: Electronic 7</p>
            <p class="stock">Stock: <span>0</span></p>
        </div>
        <div class="product-card">
            <h2 class="product-name">Product 8</h2>
            <p class="product-type">Product Type: Electronic 8</p>
            <p class="stock">Stock: <span>73</span></p>
        </div>
        <div class="product-card">
            <h2 class="product-name">Product 9</h2>
            <p class="product-type">Product Type: Electronic 9</p>
            <p class="stock">Stock: <span>0</span></p>
        </div>
        <div class="product-card">
            <h2 class="product-name">Product 10</h2>
            <p class="product-type">Product Type: Electronic 10</p>
            <p class="stock">Stock: <span>77</span></p>
        </div>
```

```
    </div>

    <script>
        const products = document.querySelectorAll('.product-card');

        function verifyProductsWithoutStock() {
            products.forEach((productCard) => {
                setTimeout(() => {
                    let stockAvailable = productCard.querySelector('.stock span');
                    if (stockAvailable.innerText == 0) {
                        productCard.style.backgroundColor = '#e4e4e4';
                        stockAvailable.style.color = "#ff6161";
                    } else {
                        productCard.style.border = '2px solid #d7b7dc';
                        productCard.style.backgroundColor = '#fffff0';
                        stockAvailable.style.color = "#28a745";
                        productCard.classList.add('in-stock');
                    }
                }, 3200);
            });
        }

        window.addEventListener('load', verifyProductsWithoutStock);
    </script>
</body>

</html>
```

This first code when executed by the **Chrome** browser will show us the following:



Expected result:
This web application has problems mainly with **loading** that must be resolved by applying the frontend profiling process in Javascript and using the Chrome Profiler tool (Tab Performance) to perform the profiling analysis.

The expected result that should be achieved after applying profiling in this exercise should be a full page load time between 107 ms and 117 ms, similar to what is shown in the following image: