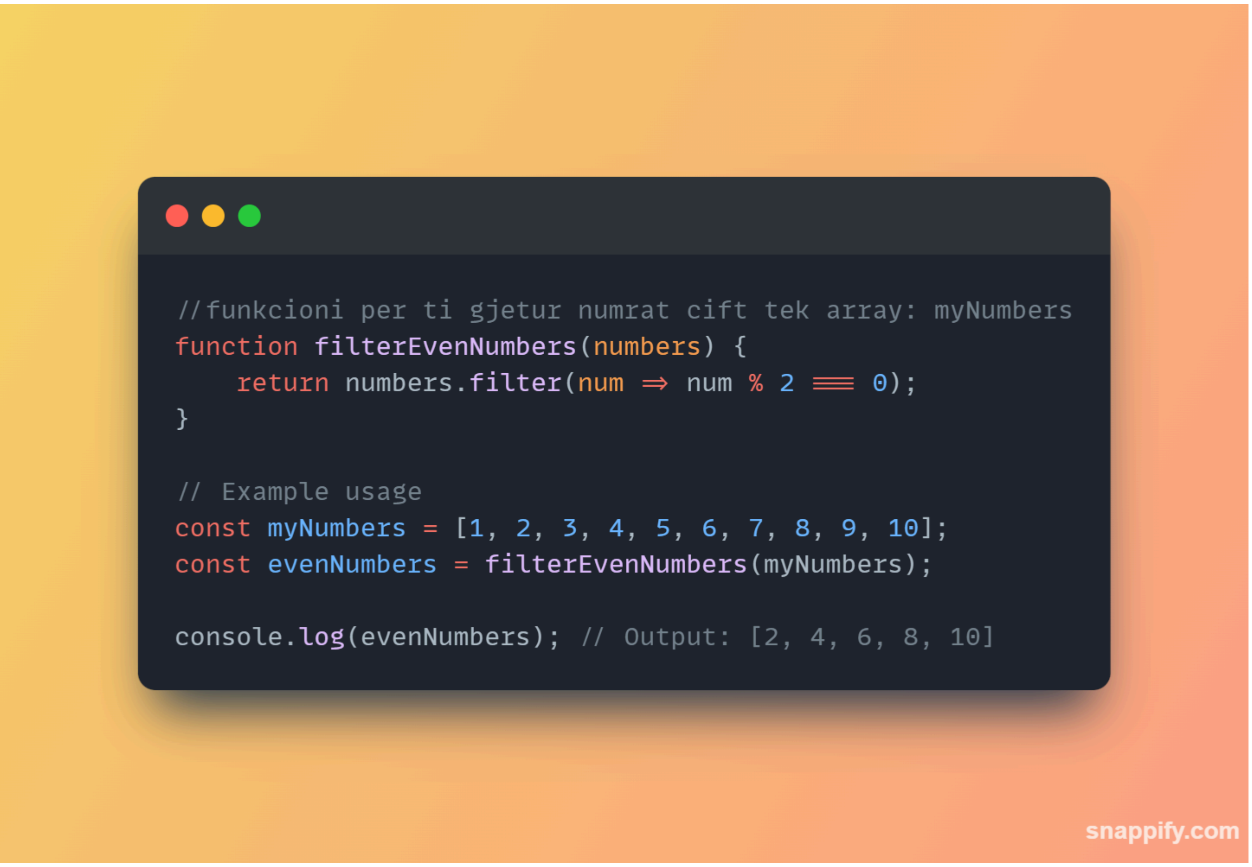
Materiali mesimor per javen 3 - 7 mars 2025 Scantech

E hane - 3 mars 2025:
Sesioni i pare: Perseritje me funksione (definimi dhe thirrja e funkcionit, arrow functions)
Sesioni i dyte: Implement a function that filters even numbers from an array.

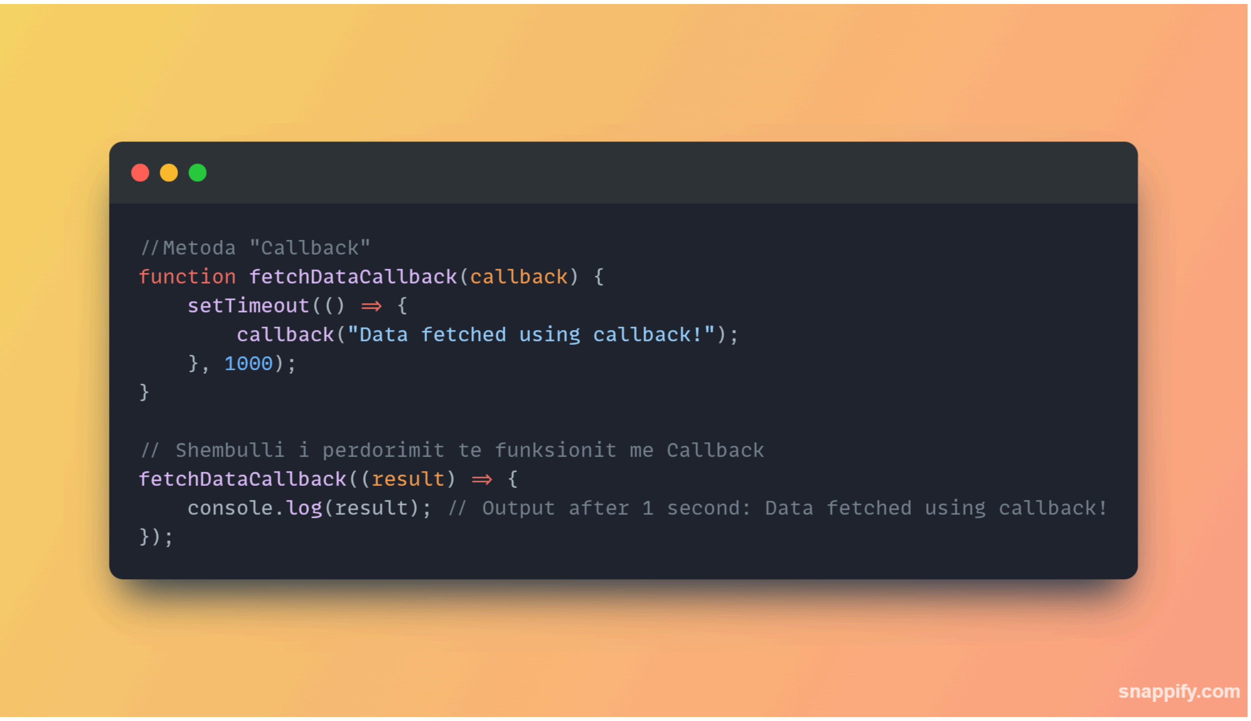


```javascript
//funkcioni per ti gjetur numrat cift tek array: myNumbers
function filterEvenNumbers(numbers) {
    return numbers.filter(num => num % 2 === 0);
}

// Example usage
const myNumbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];
const evenNumbers = filterEvenNumbers(myNumbers);

console.log(evenNumbers); // Output: [2, 4, 6, 8, 10]
```

E merkure - 5 mars 2025:

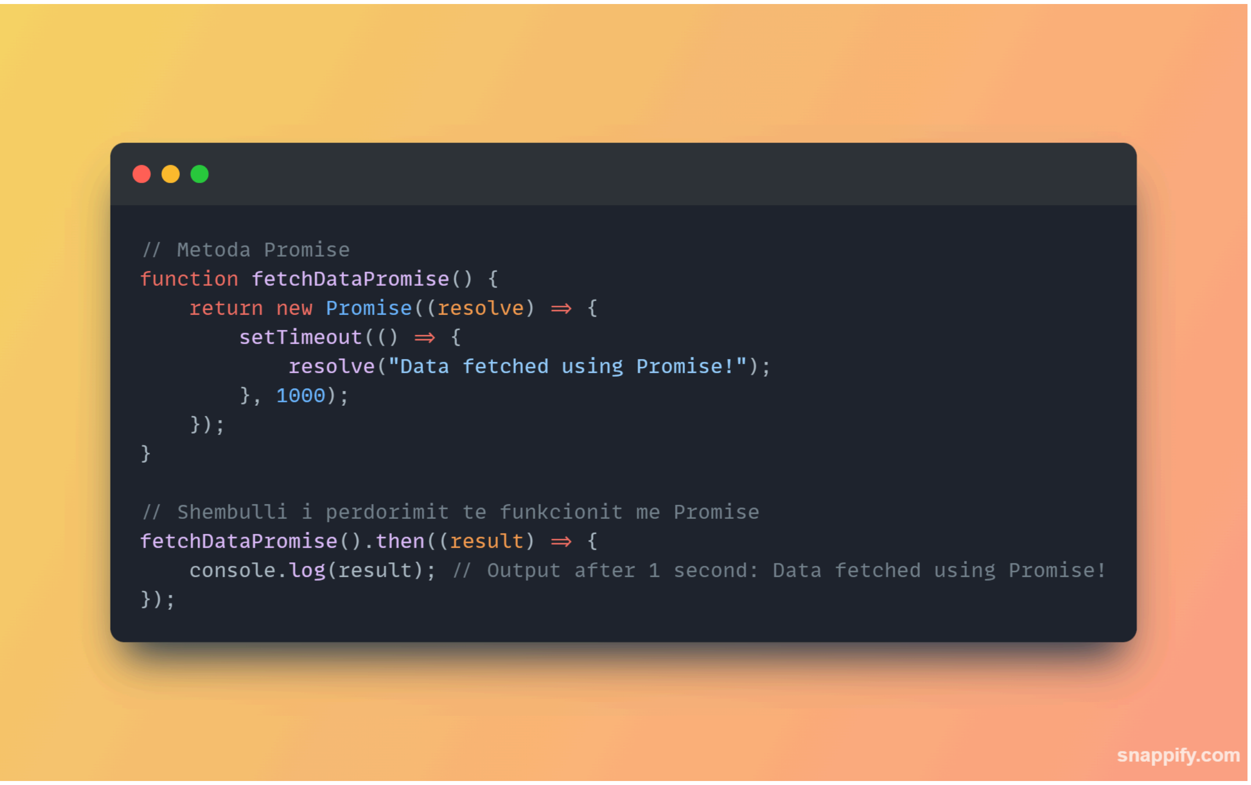
Sesioni i pare: Callbacks and problem “callback hell” and solution with Promises (and a small introduction to async/await)

Shembulli i nje asynchronous callback te thjeshte:



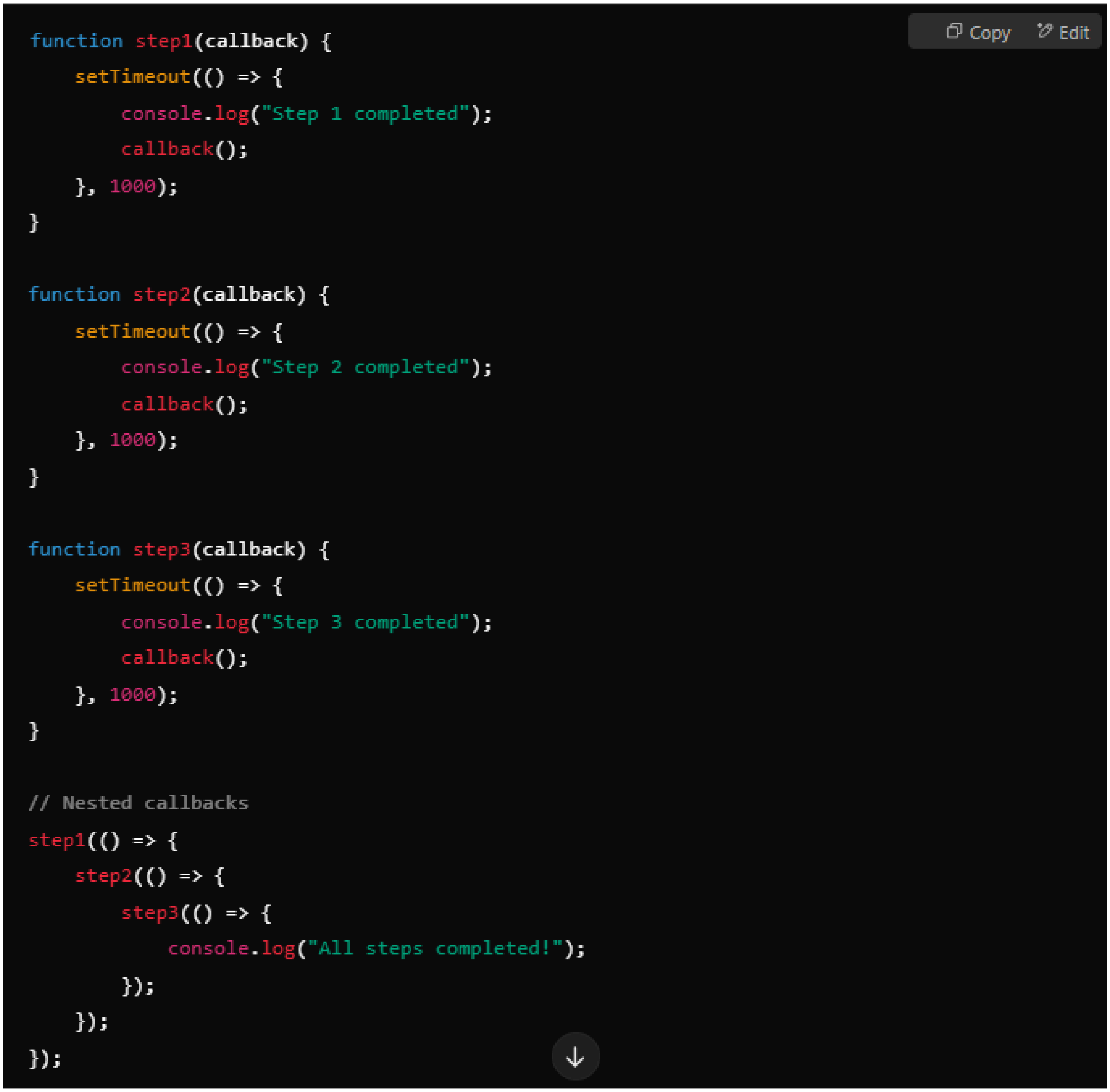
```javascript
//Metoda "Callback"
function fetchDataCallback(callback) {
    setTimeout(() => {
        callback("Data fetched using callback!");
    }, 1000);
}

// Shembulli i perdorimit te funksionit me Callback
fetchDataCallback((result) => {
    console.log(result); // Output after 1 second: Data fetched using callback!
});
```

Shembulli i njejte por me Promise:



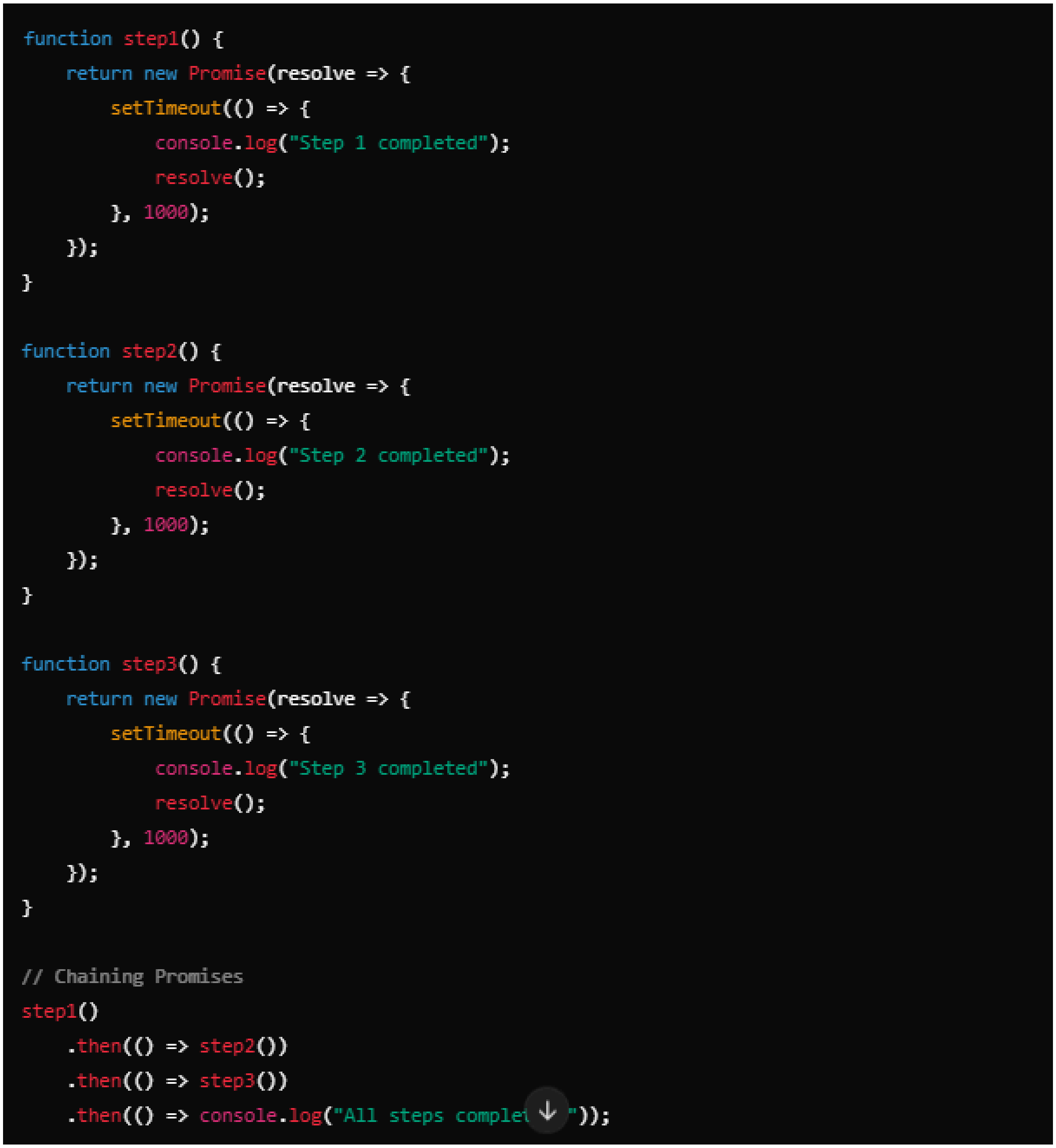
```javascript
// Metoda Promise
function fetchDataPromise() {
    return new Promise((resolve) => {
        setTimeout(() => {
            resolve("Data fetched using Promise!");
        }, 1000);
    });
}

// Shembulli i perdorimit te funkcionit me Promise
fetchDataPromise().then((result) => {
    console.log(result); // Output after 1 second: Data fetched using Promise!
});
```

Shembull i “callback hell”:



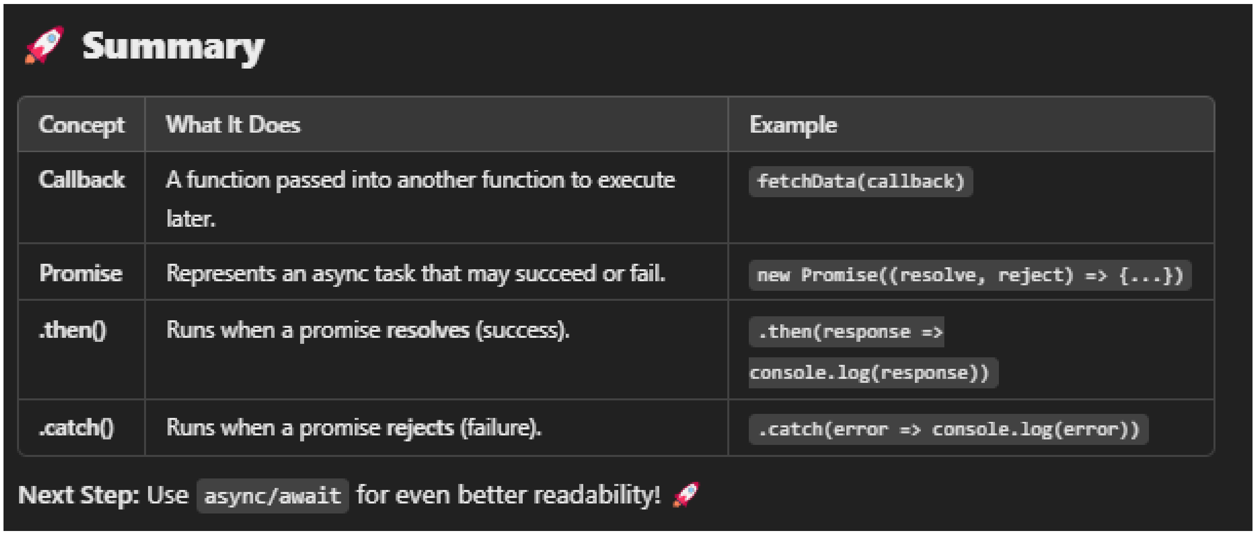
```
function step1(callback) {
    setTimeout(() => {
        console.log("Step 1 completed");
        callback();
    }, 1000);
}

function step2(callback) {
    setTimeout(() => {
        console.log("Step 2 completed");
        callback();
    }, 1000);
}

function step3(callback) {
    setTimeout(() => {
        console.log("Step 3 completed");
        callback();
    }, 1000);
}

// Nested callbacks
step1(() => {
    step2(() => {
        step3(() => {
            console.log("All steps completed!");
        });
    });
});
```

Zgjidhje Promises:



```
function step1() {
    return new Promise(resolve => {
        setTimeout(() => {
            console.log("Step 1 completed");
            resolve();
        }, 1000);
    });
}

function step2() {
    return new Promise(resolve => {
        setTimeout(() => {
            console.log("Step 2 completed");
            resolve();
        }, 1000);
    });
}

function step3() {
    return new Promise(resolve => {
        setTimeout(() => {
            console.log("Step 3 completed");
            resolve();
        }, 1000);
    });
}

// Chaining Promises
step1()
    .then(() => step2())
    .then(() => step3())
    .then(() => console.log("All steps complet    "));
```

Permbledhje:



🚀 Summary

Concept	What It Does	Example
Callback	A function passed into another function to execute later.	`fetchData(callback)`
Promise	Represents an async task that may succeed or fail.	`new Promise((resolve, reject) => {...})`
.then()	Runs when a promise **resolves** (success).	`.then(response => console.log(response))`
.catch()	Runs when a promise **rejects** (failure).	`.catch(error => console.log(error))`

Next Step: Use `async/await` for even better readability! 🚀

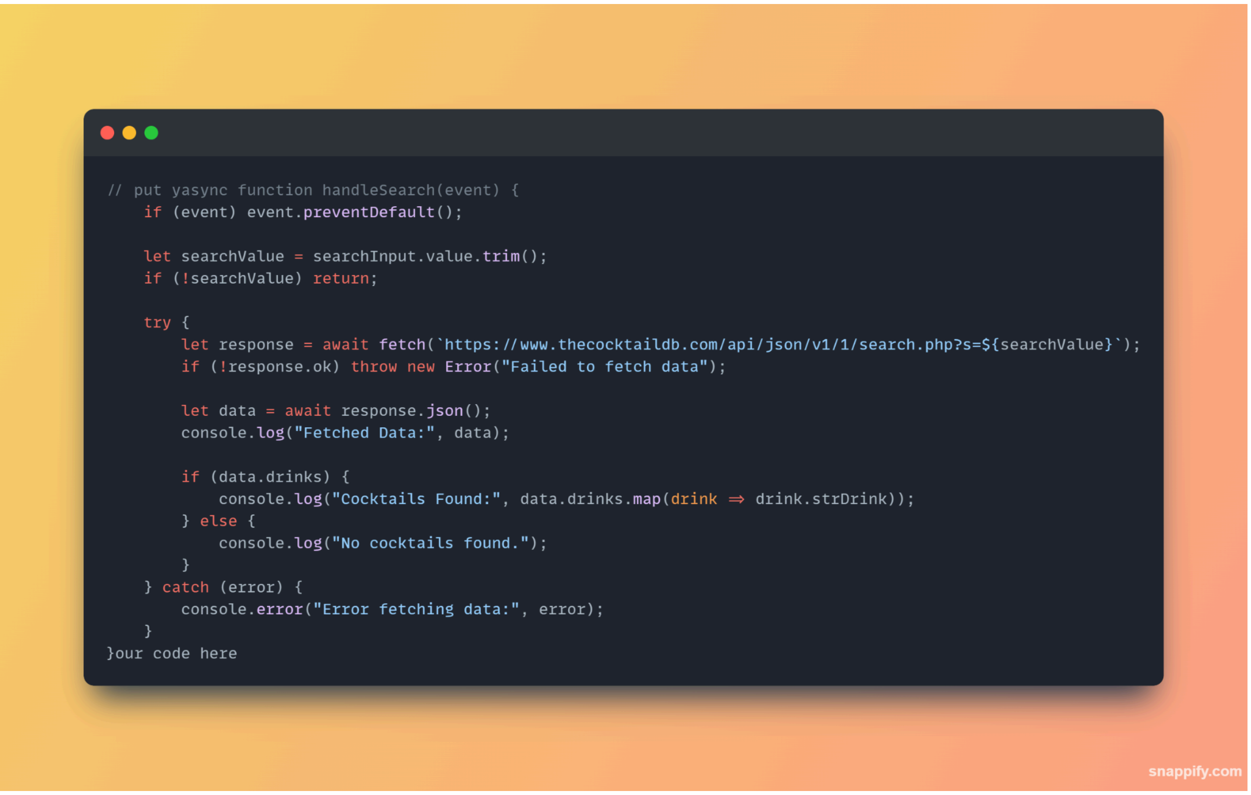
Sesioni i dyte: Diskutime mbi shembuj ne boten reale per *Database calls* edhe *API Requests*

E premte - 7 mars 2025:
Sesioni i pare: Konvertimi i Promises ne Asynchronous Functions (komandat *async/await*) dhe error handling me metoden *try {} catch {}*
Sesioni i dyte: detyre per: Konsumimi i te dhenave me metoden *fetch()* duke perdorur error handling me metoden *try {} catch {}*.

Linku i Fake API: **https://jsonplaceholder.typicode.com/**

Linku: **https://cocktail-recipes.surge.sh/**

Shembulli:



```
// put yasync function handleSearch(event) {
    if (event) event.preventDefault();

    let searchValue = searchInput.value.trim();
    if (!searchValue) return;

    try {
        let response = await fetch(`https://www.thecocktaildb.com/api/json/v1/1/search.php?s=${searchValue}`);
        if (!response.ok) throw new Error("Failed to fetch data");

        let data = await response.json();
        console.log("Fetched Data:", data);

        if (data.drinks) {
            console.log("Cocktails Found:", data.drinks.map(drink => drink.strDrink));
        } else {
            console.log("No cocktails found.");
        }
    } catch (error) {
        console.error("Error fetching data:", error);
    }
}our code here
```