

Molding Machine Dashboard

Group 19

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- ☑ Key Features
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Problem Domain and Solution

? stuck plastic problem

- Plastic residue gets stuck or left behind in the mold
- Reduces the efficiency of the machines

What if we had a method to identify the inefficient machines at a glance?



Our Solution

Molding Machine Dashboard



What is Molding Machine Dashboard?

It is a **visual display** of all data relevant to **25+ machines** in a factory setting



Key Features

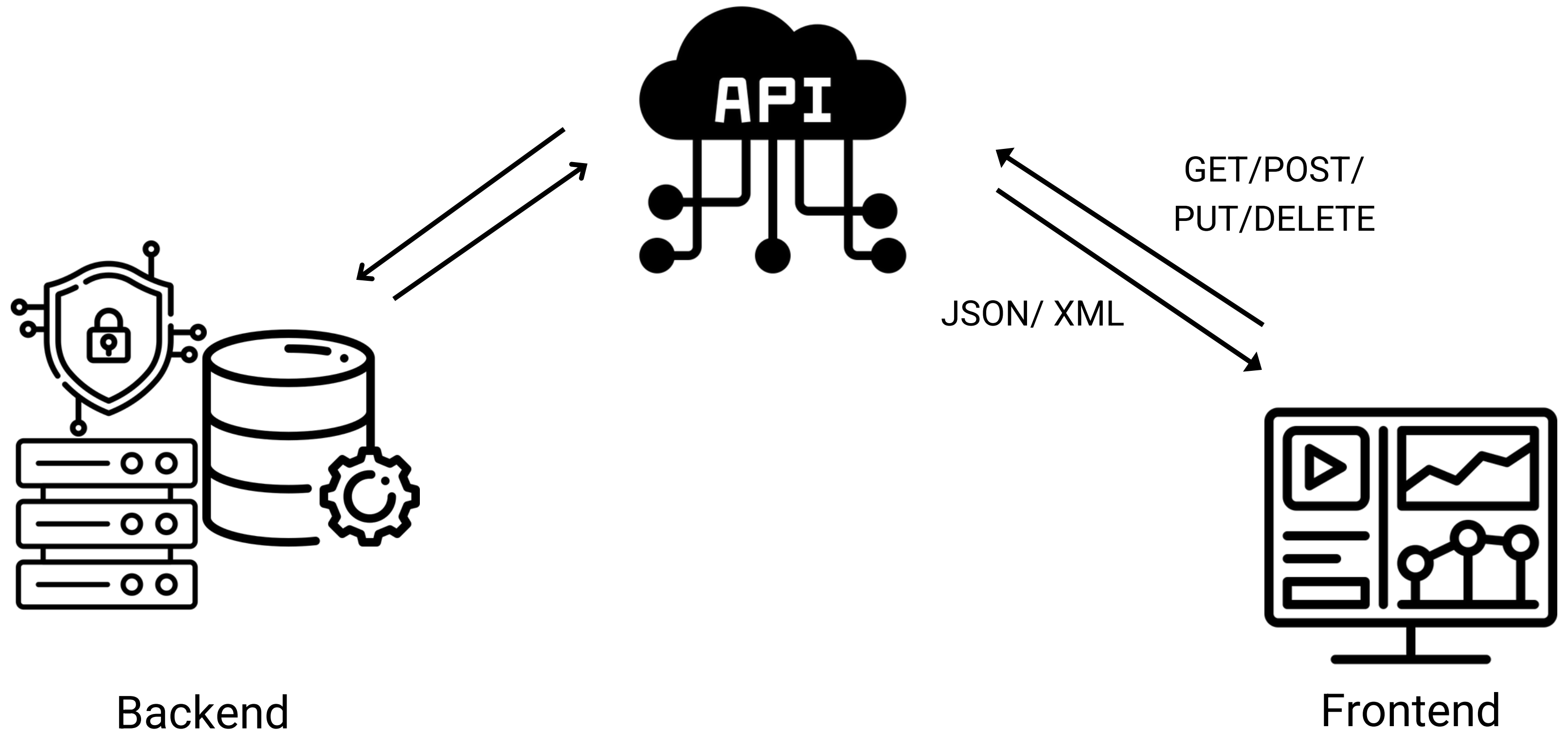
- ✓ Secure login system
- ✓ Graphical representation of data
- ✓ Ability to generate reports
- ✓ Ability to update the database through the dashboard

A man in a dark suit and tie is shown from the chest up, pointing his right index finger towards a glowing lightbulb. The lightbulb is the central focus, emitting a warm glow. Several other unlit lightbulbs hang from thin wires in the background. The overall background is a dark teal color with some subtle light effects.

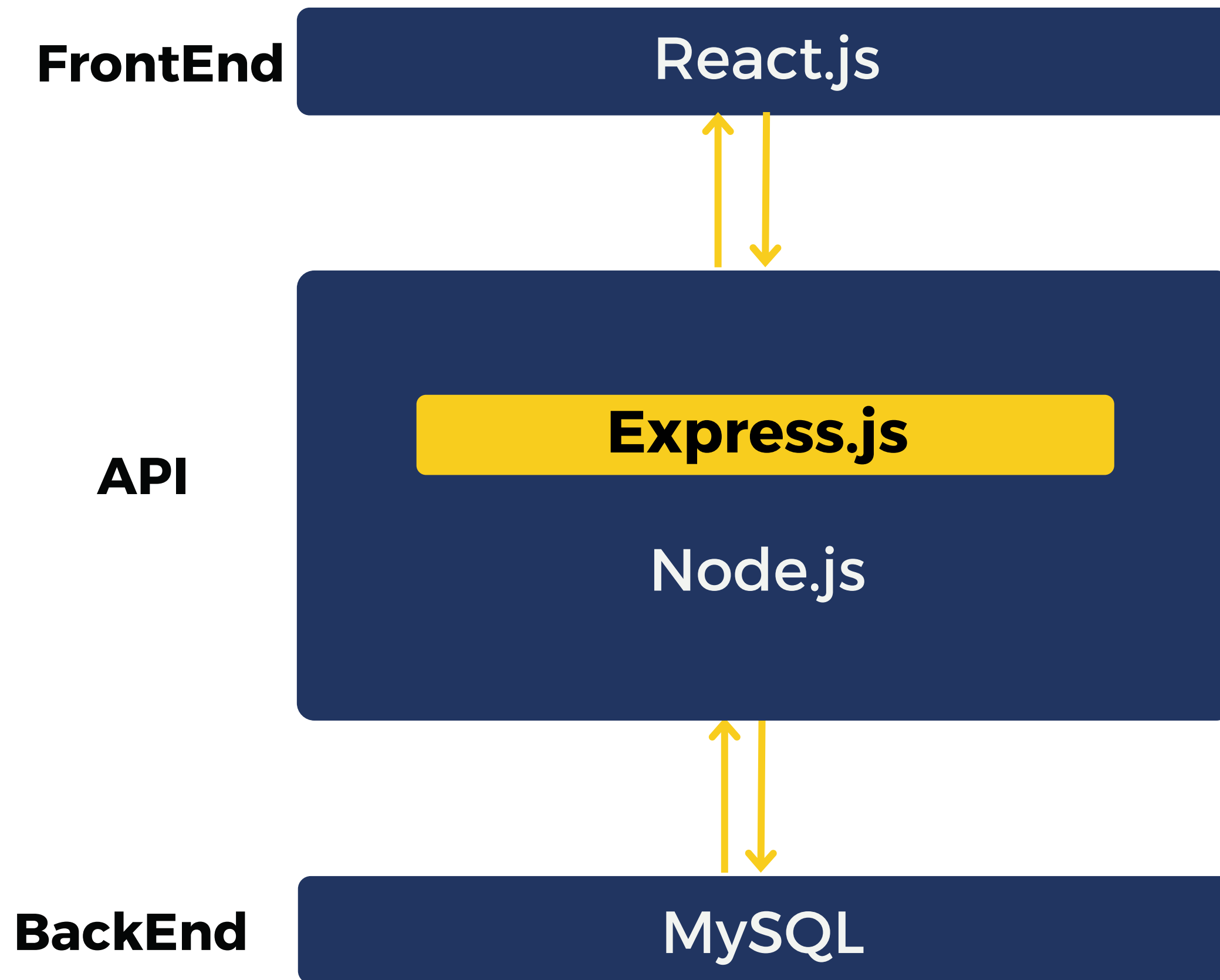
Molding Machine Dashboard

Solution Architecture

Flow of Data



Technology Stack

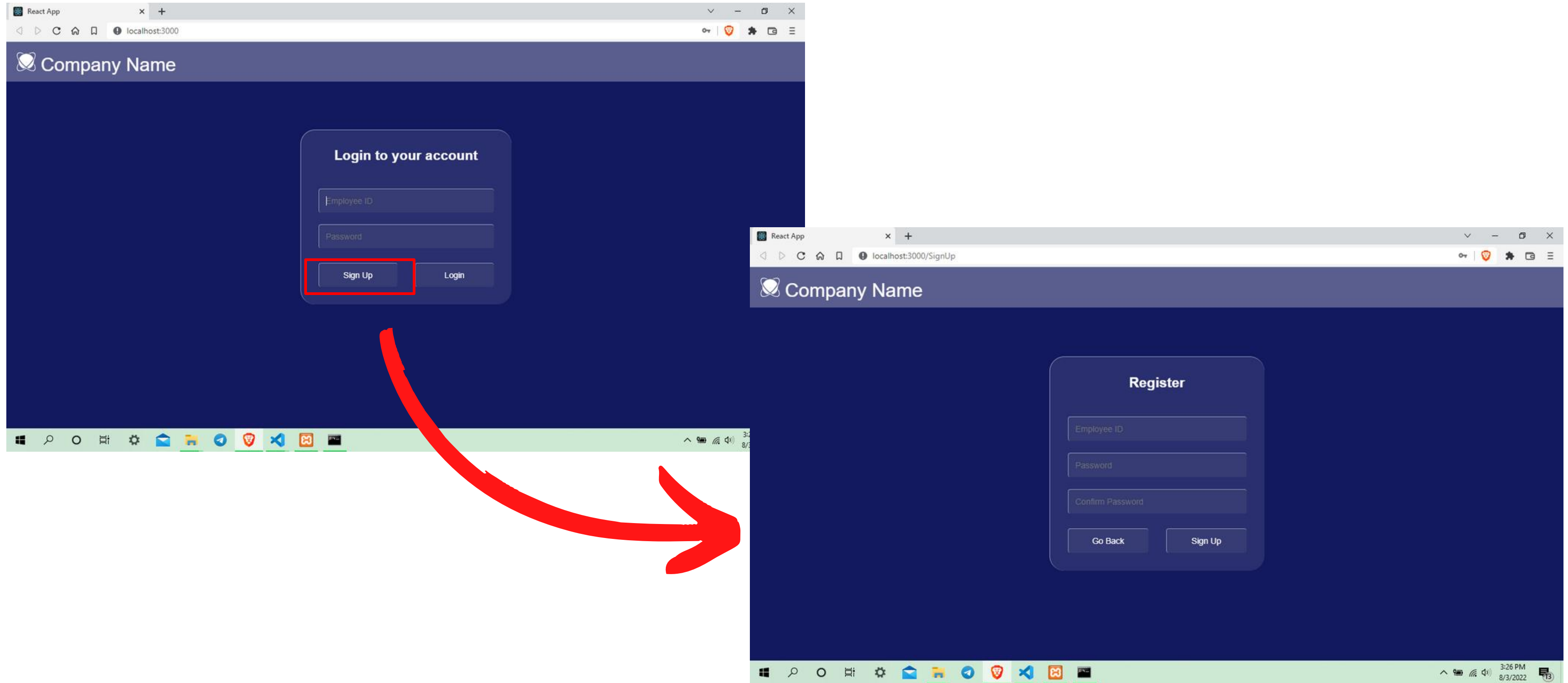


The background features a dark blue gradient with a faint, glowing network diagram. A hand is shown pointing at a screen, with lines radiating from the point of contact to various circular icons representing different system components like a cloud, a server, and a factory. In the top right corner, there is a small yellow graphic consisting of three squares arranged in a 2x2 grid with the bottom-right square missing.

Molding Machine Dashboard

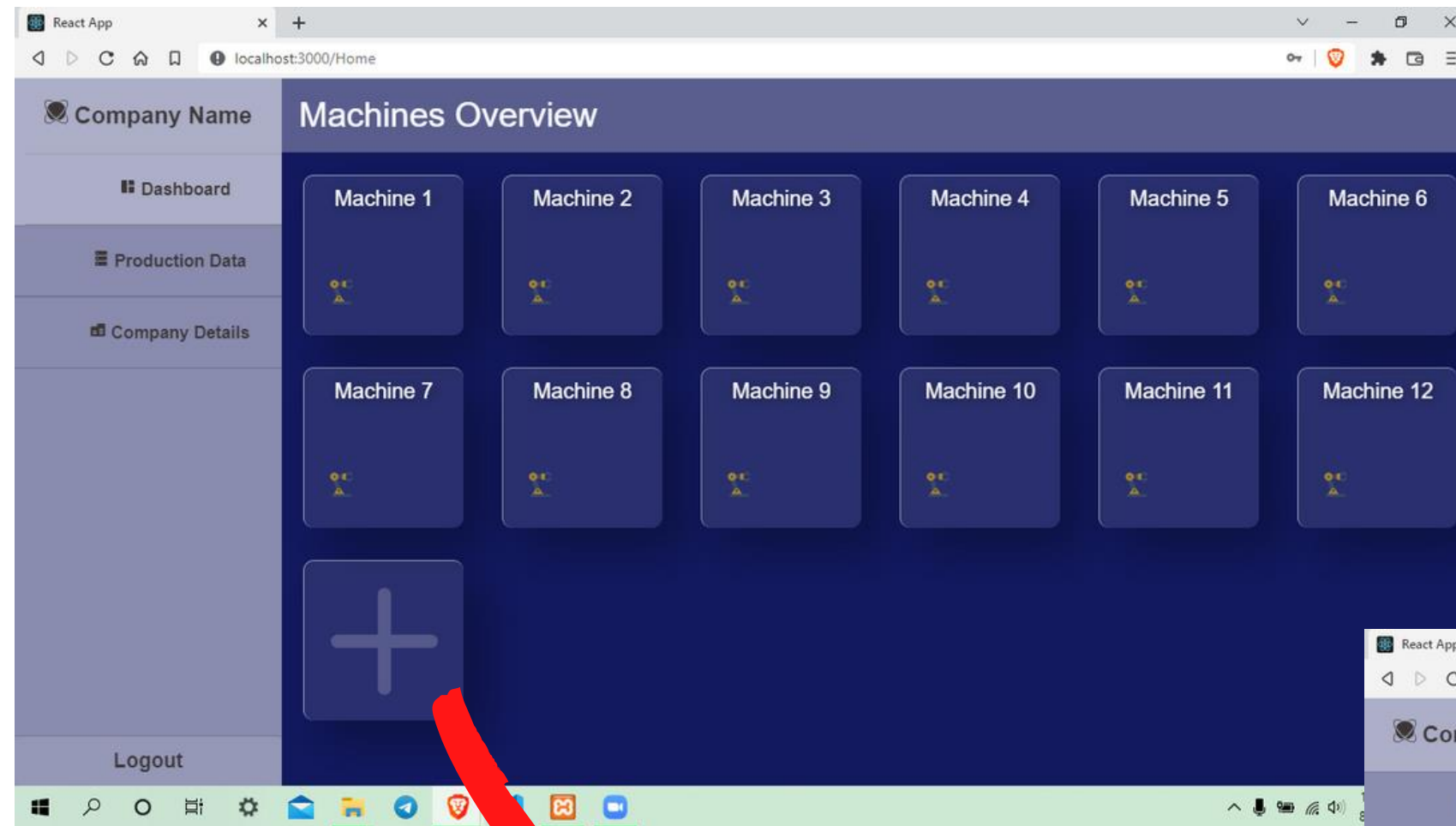
System Overview

User Interfaces and Functionalities

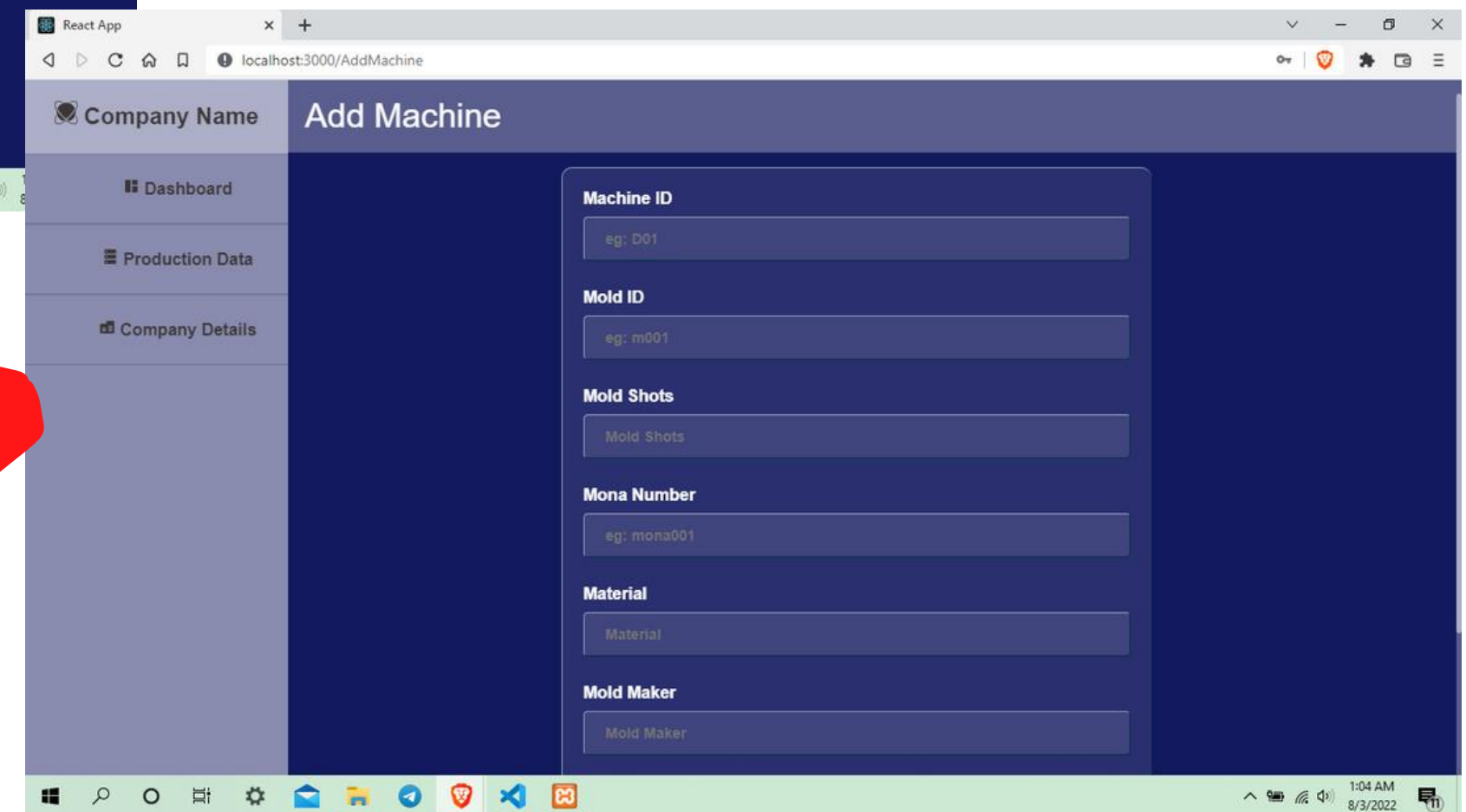


Login and signup

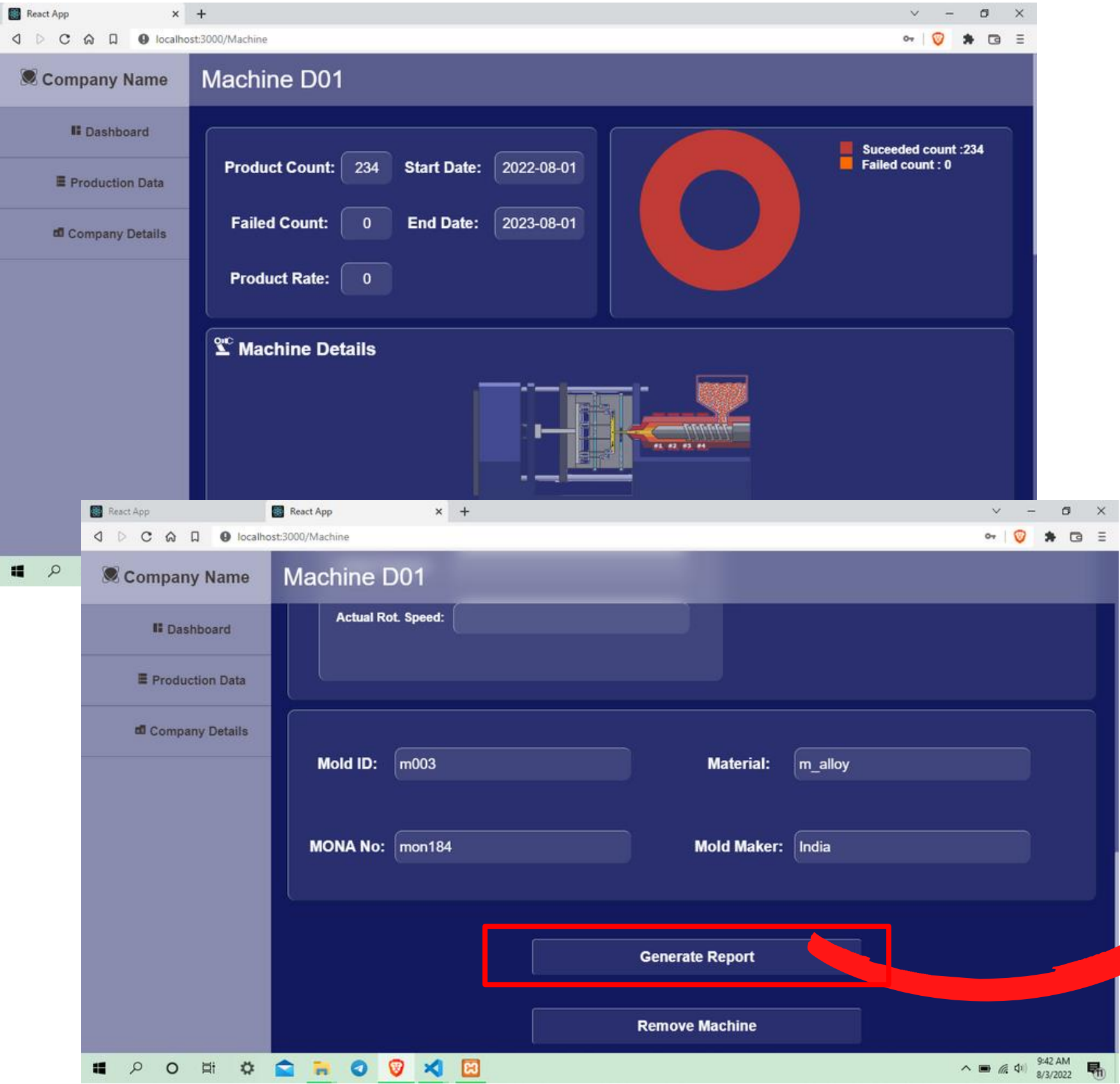
Machine overview



Add machine

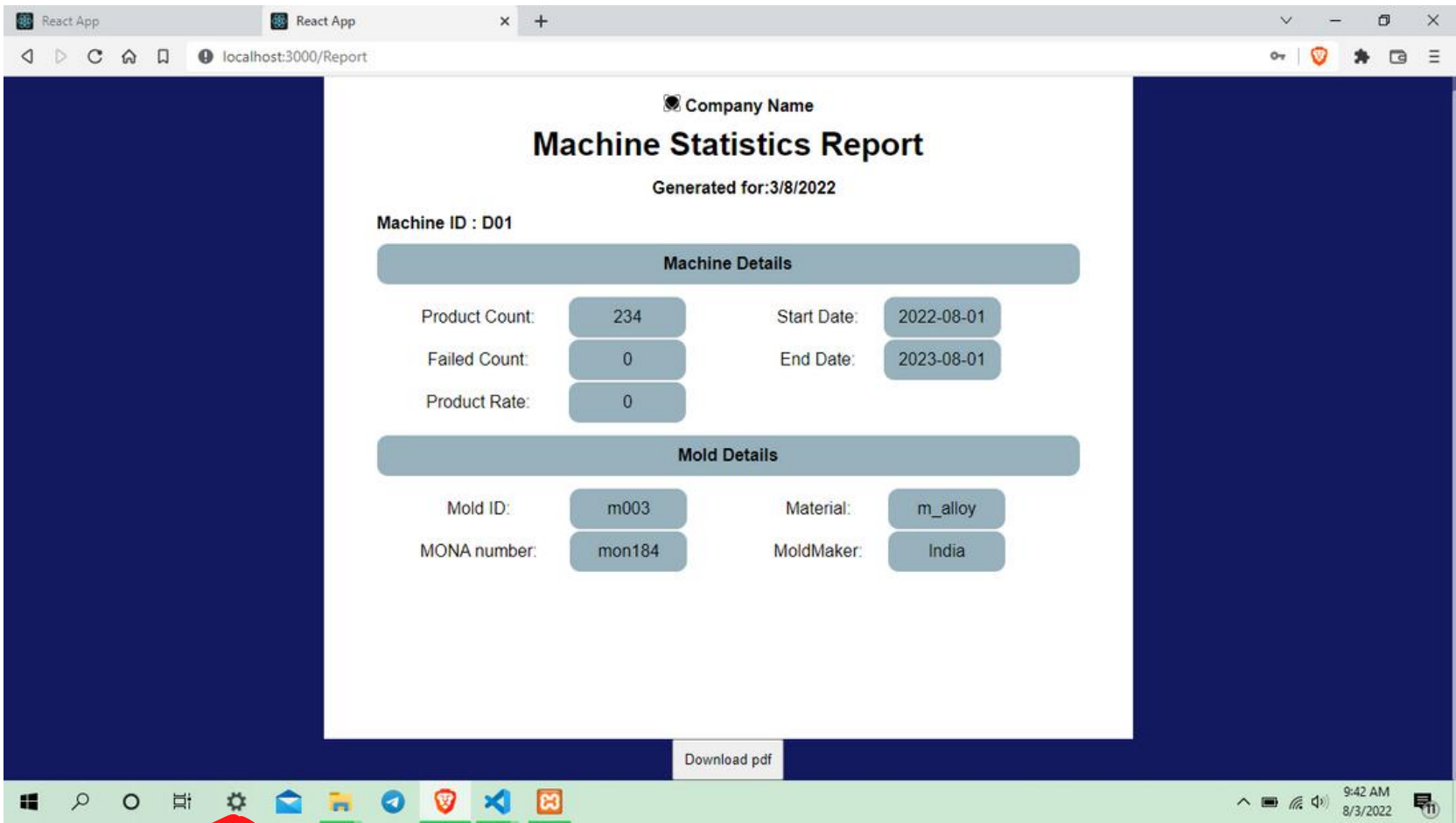


View machine details

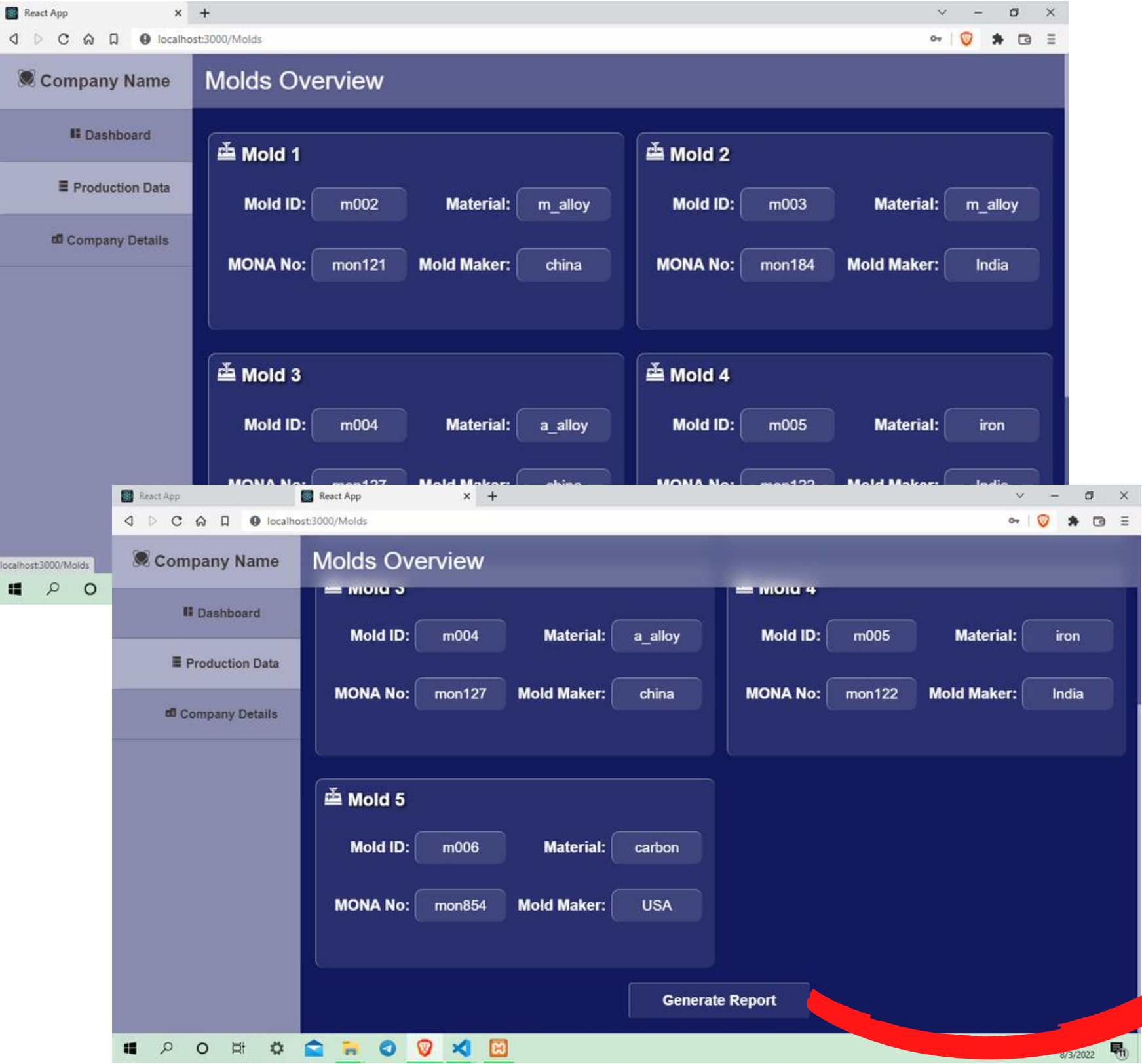


Remove the current machine

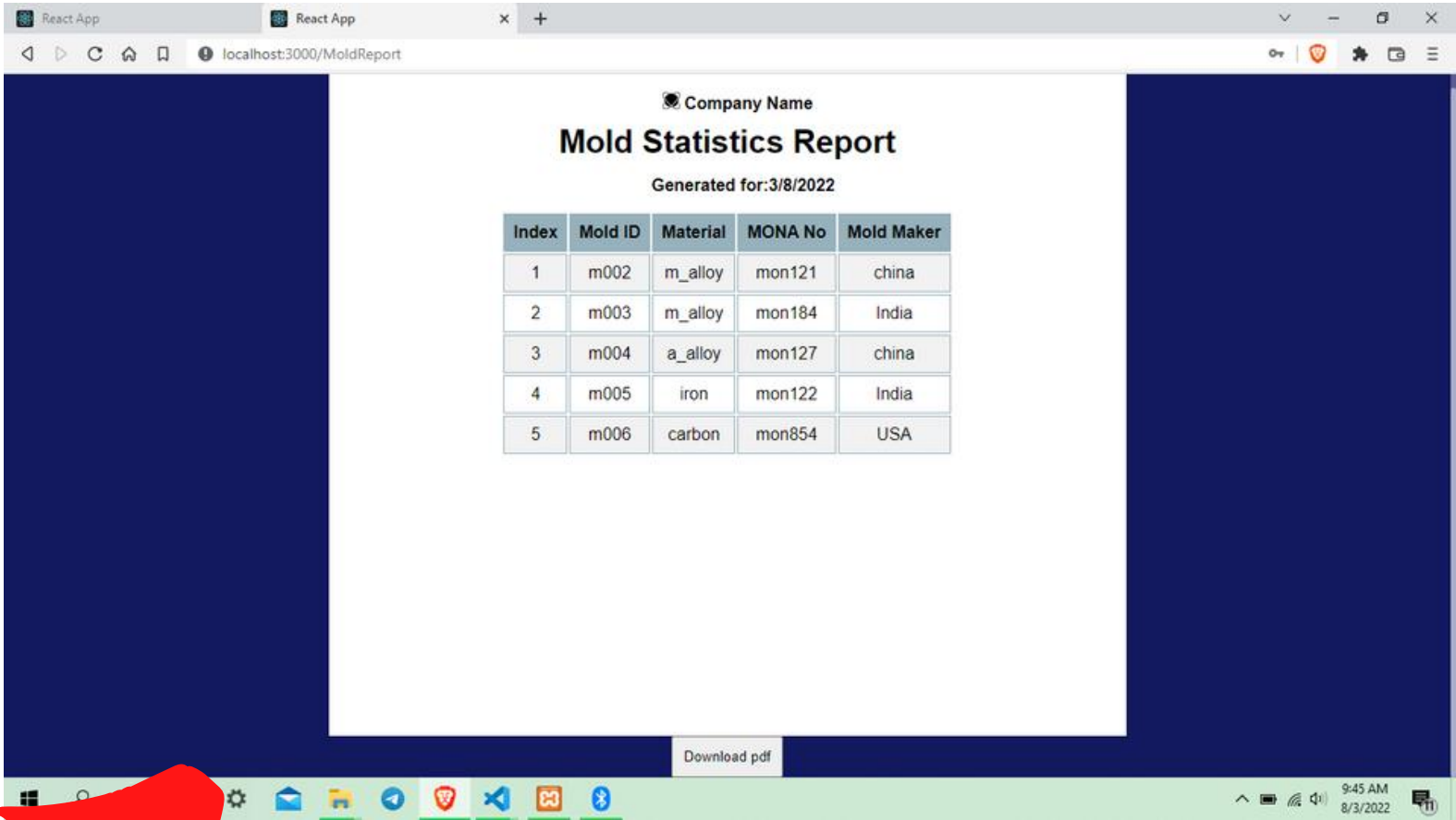
Machine report generation

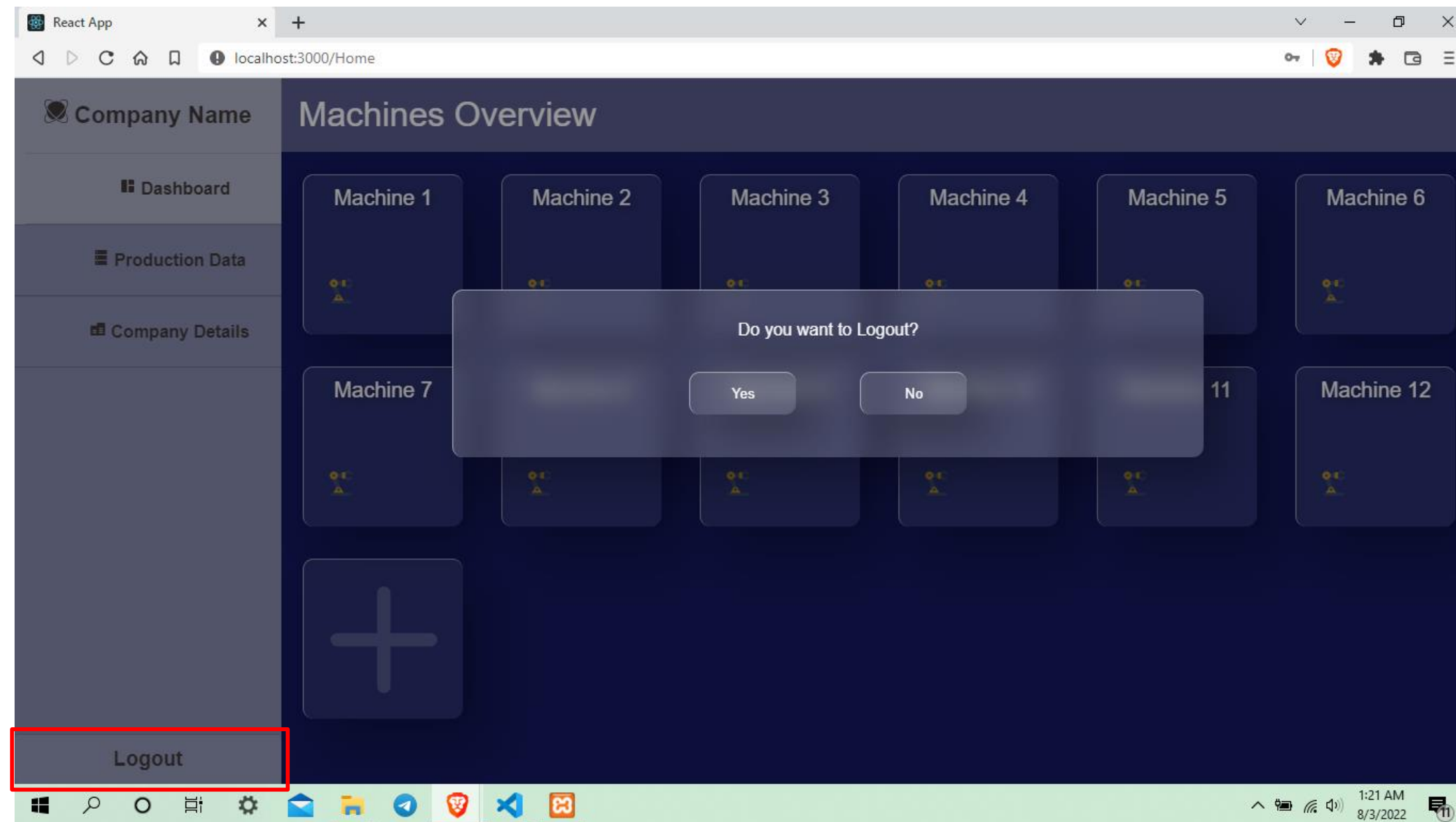


Molds Overview



Mold report generation





Logout

BackEnd Database

Molds table

moldID	monaNumber	material	moldMaker
m002	mon121	m_alloy	china
m003	mon184	m_alloy	India
m004	mon127	a_alloy	china
m005	mon122	iron	India
m006	mon854	carbon	USA

Machines table

machineID	moldID	moldShots	failedShots	prodRate	prod_start_date	prod_end_date
D01	m003	234	0	0	2022-08-02	2023-08-02
D011	m003	58	0	0	2022-08-01	2023-08-01
D012	m004	7	0	0	2022-08-01	2023-08-01
D02	m002	150	3	1	2022-02-09	2022-03-19
D020	m006	34	0	0	2022-08-01	2023-08-01
D03	m003	70	2	1	2022-06-10	2022-06-19

Passwords table

emplD	password
0000X	\$2b\$10\$Jp0dYvy2eti2CIJ7F2.58eIVMvX16bwbYX0jFy.2sLW...
1234X	\$2b\$10\$edTG8XBTqTOo4rJ5ow.V6OtCMjVe9gm1ogaixl9m3CQ...
9876X	\$2b\$10\$Hi0bCd45CAXcKrDusqhy.ejZyXF0K/5kNY2foyyOsOr...

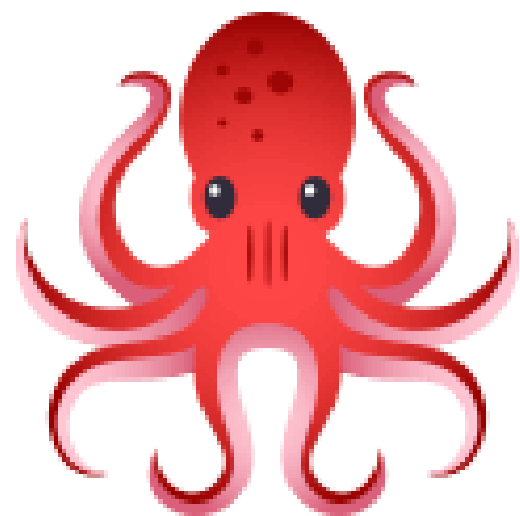
Employees table

emplD	firstName	lastName	empTitle	admin
0000X	Didula	Induwara	Admin	1
1234X	James	Greer	Engineer	0
4321X	Anushaga	pavith	Admin	1
9876X	Jack	Reacher	Admin	1

TESTING

◆ Unit Testing

- It must render
 - Render without errors
 - no JSX syntax errors
- Test the states
 - enabled/disabled
 - success/warning/error
- Test the events
 - onClick events
 - button/input



react-testing-library

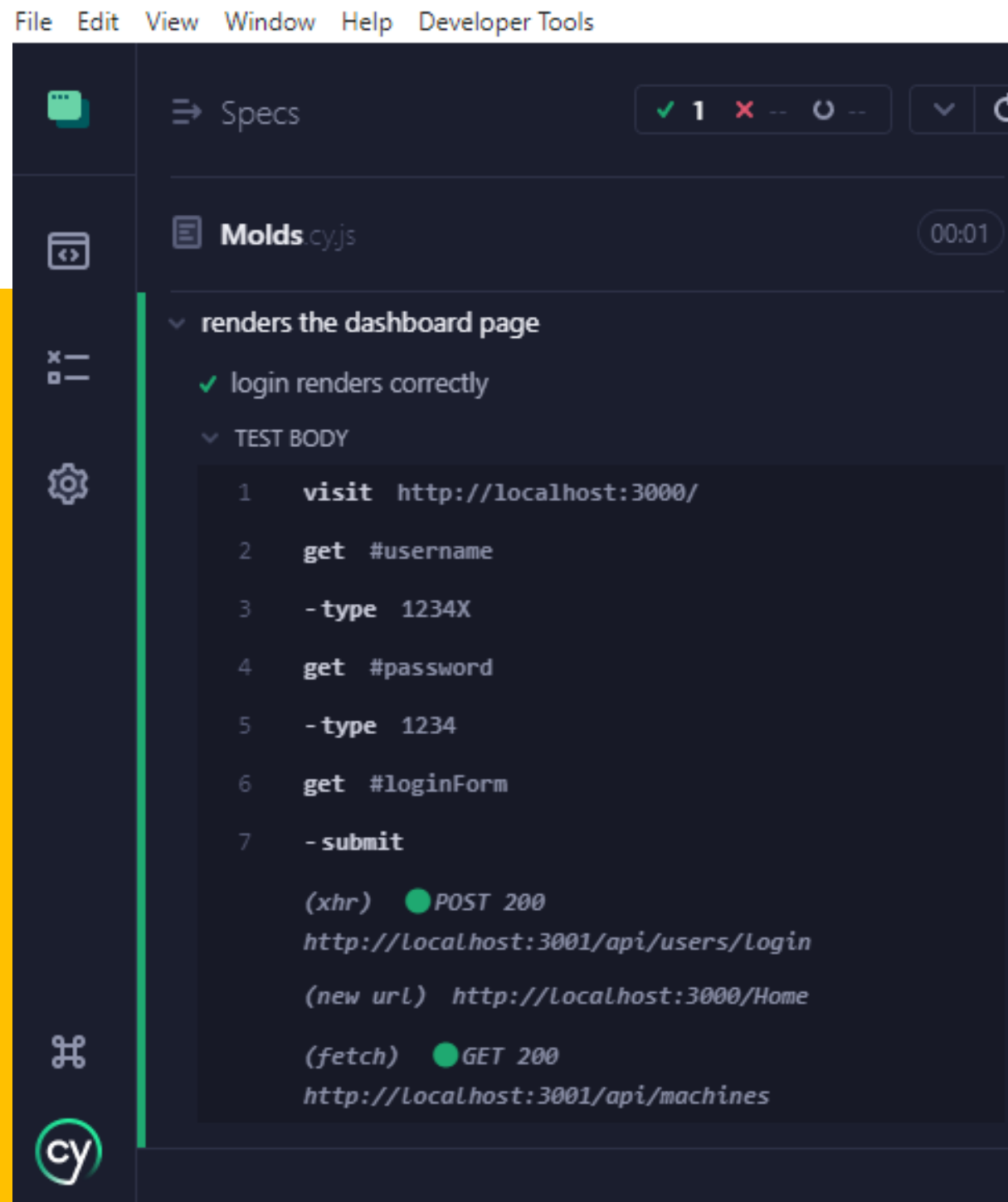
```
PROBLEMS 5 OUTPUT TERMINAL JUPYTER SQL CONSOLE GIT
PASS src/components/__tests__/MachineDetailBox.test.js
PASS src/pages/__tests__/Snap.CompanyDetails.test.js
PASS src/pages/__tests__/CompanyDetails.test.js
PASS src/pages/__tests__/AddMachine.test.js
PASS src/components/__tests__/MachineDetailBox.jsx.test.js
PASS src/pages/__tests__/Disabled.SignUp.test.js
PASS src/components/__tests__/LogoutPopUp.test.js
PASS src/pages/__tests__/SignUp.test.js
PASS src/components/__tests__/DataBox.test.js
PASS src/pages/__tests__/Login.test.js
PASS src/pages/__tests__/Home.test.js
PASS src/pages/__tests__/Snap.Home.test.js
PASS src/components/__tests__/MoldDetailBox.jsx.test.js
PASS src/components/__tests__/DashboardHeader.test.js
PASS src/pages/__tests__/Snap.AddMachine.test.js
PASS src/pages/__tests__/Molds.test.js
PASS src/components/__tests__/MoldDetailBox.test.js

Test Suites: 17 passed, 17 total
Tests:       25 passed, 25 total
Snapshots:   5 passed, 5 total
Time:        6.485 s
Ran all test suites.

Watch Usage: Press w to show more.
```

TESTING

◆ E2E (UI) Testing



File Edit View Window Help Developer Tools

Specs ✓ 1 ✗ -- ⏸ --

Molds cy.js 00:01

renders the dashboard page

✓ login renders correctly

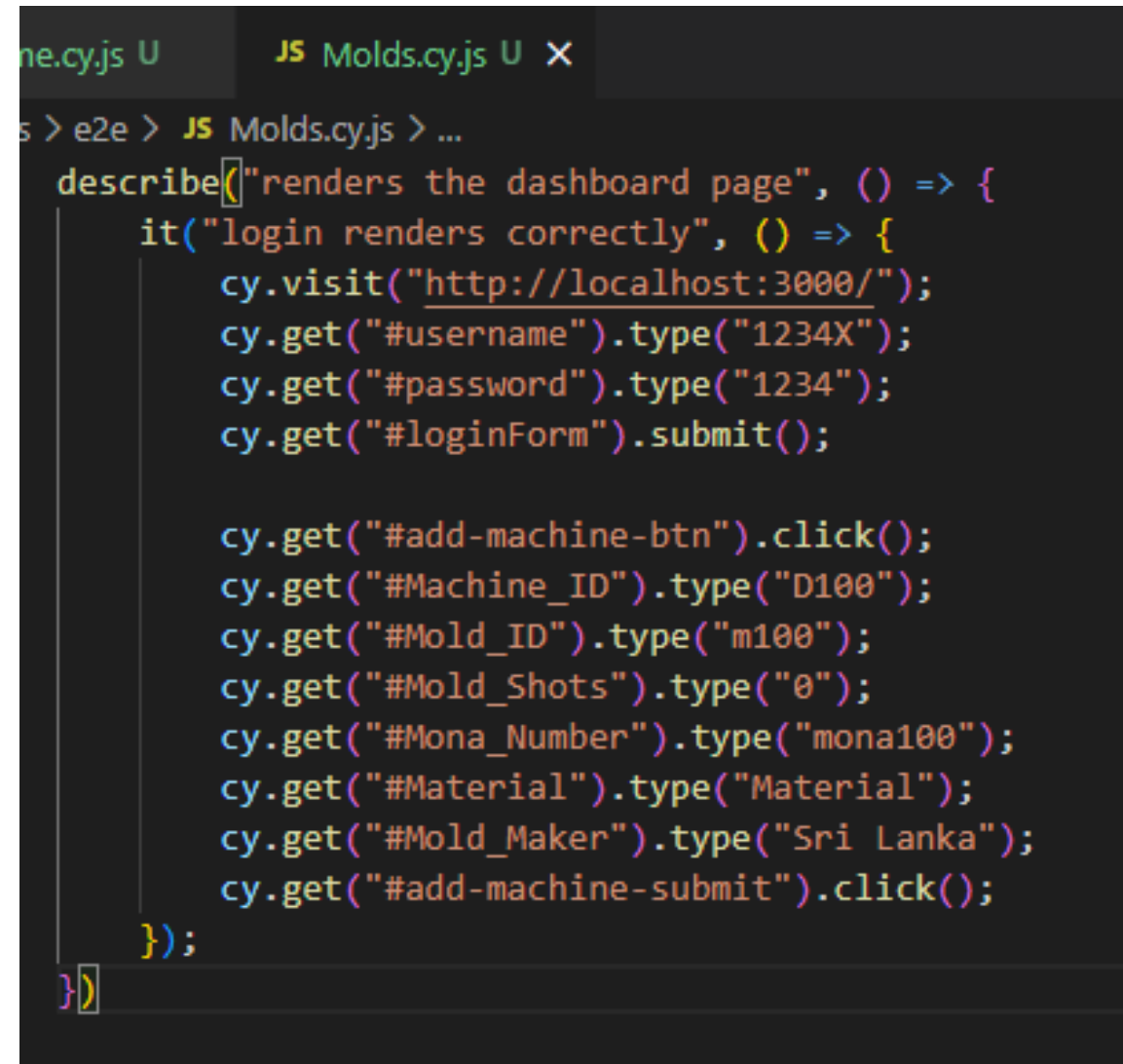
TEST BODY

```
1 visit http://localhost:3000/
2 get #username
3 -type 1234X
4 get #password
5 -type 1234
6 get #loginForm
7 -submit
```

(xhr) ● POST 200
http://localhost:3001/api/users/login

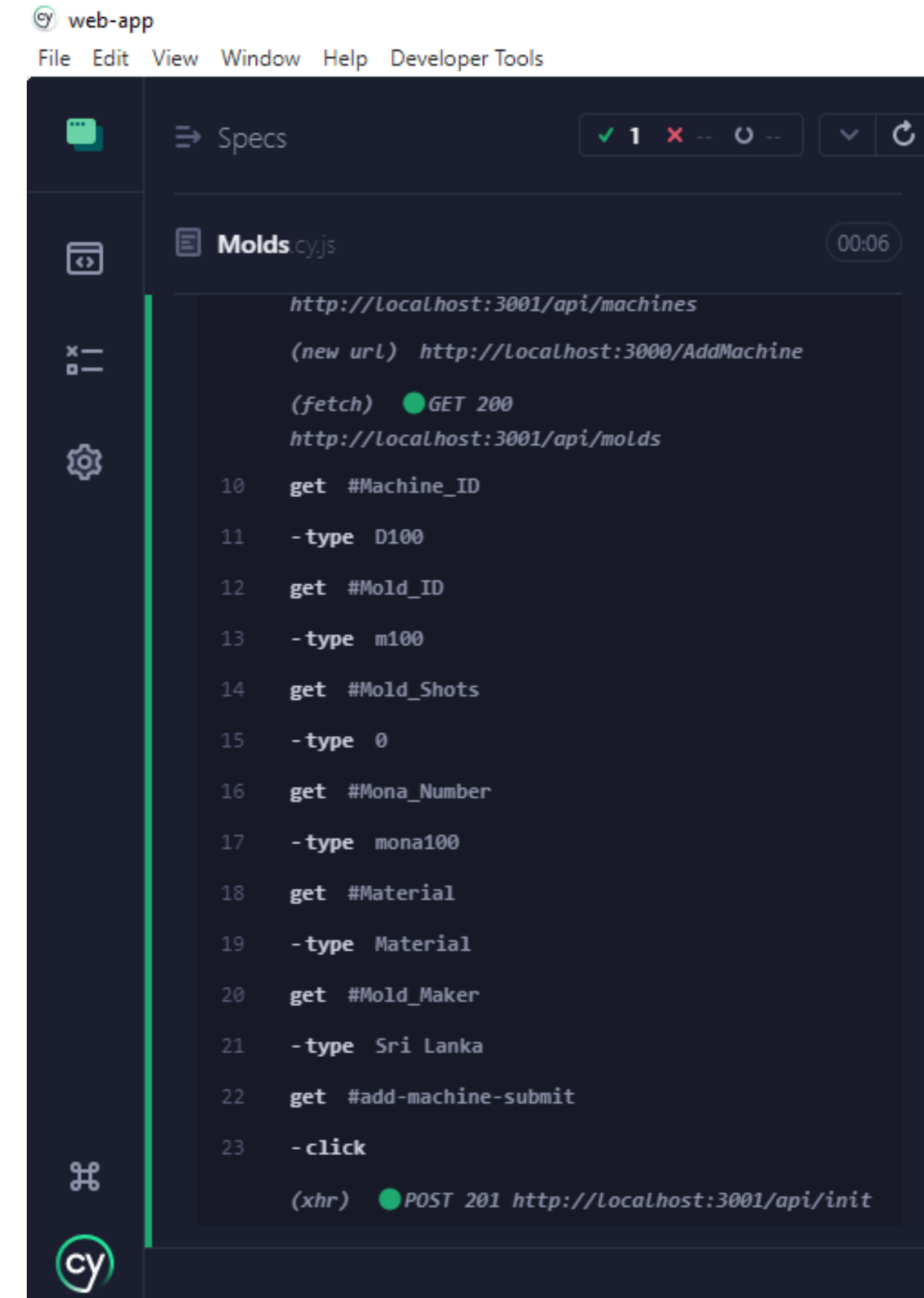
(new url) http://localhost:3000/Home

(fetch) ● GET 200
http://localhost:3001/api/machines



```
ne.cy.js U JS Molds.cy.js U X
s > e2e > JS Molds.cy.js > ...
describe("renders the dashboard page", () => {
  it("login renders correctly", () => {
    cy.visit("http://localhost:3000/");
    cy.get("#username").type("1234X");
    cy.get("#password").type("1234");
    cy.get("#loginForm").submit();

    cy.get("#add-machine-btn").click();
    cy.get("#Machine_ID").type("D100");
    cy.get("#Mold_ID").type("m100");
    cy.get("#Mold_Shots").type("0");
    cy.get("#Mona_Number").type("mona100");
    cy.get("#Material").type("Material");
    cy.get("#Mold_Maker").type("Sri Lanka");
    cy.get("#add-machine-submit").click();
  });
});
```



cy web-app File Edit View Window Help Developer Tools

Specs ✓ 1 ✗ -- ⏸ --

Molds cy.js 00:06

```
http://localhost:3001/api/machines
(new url) http://localhost:3000/AddMachine
(fetch) ● GET 200
http://localhost:3001/api/molds
10 get #Machine_ID
11 -type D100
12 get #Mold_ID
13 -type m100
14 get #Mold_Shots
15 -type 0
16 get #Mona_Number
17 -type mona100
18 get #Material
19 -type Material
20 get #Mold_Maker
21 -type Sri Lanka
22 get #add-machine-submit
23 -click
(xhr) ● POST 201 http://localhost:3001/api/init
```


Molding Machine Dashboad

Demonstration



Molding Machine Dashboad

Q & A

A background image showing three people in a professional setting. A woman with curly hair is on the left, looking up at two men standing behind her. The man on the left is wearing a yellow shirt and a light blue jacket, and the man on the right is wearing a light blue jacket. They appear to be in a collaborative discussion. In the top right corner, there is a yellow graphic consisting of three squares arranged in a 2x2 grid with the bottom-right square missing.

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Thank You