

# TASK SECRET SANTA

## Running

- 1 Go to <https://github.com/sejlap/SecretSanta/> and clone or download a repository.
- 2 Open in VS Code the repo and check if you are in SecretSanta folder
- 3 Enter npm install and after npm run watch to start the backend of the application
- 4 In the new terminal click cd santa\_frontend
- 5 Enter npm install and after npm start and the react app will start
- 6 The frontend is running on <http://localhost:3000/> and the backend and stored data on the <http://localhost:5000/employees>

## Frontend explanation

For the frontend, I've used React.js and store the data on the external link <http://localhost:5000/employees>

First page is Home page where you can just with one click on „Match“ get areport of matched employees. But first if you click the match the message will be „No employees. You have to add a new employee. If you add just a one employee the message is „Just one employee. You have to add a new employee. The right button is Add employees and when you click it the add employee form will appear.

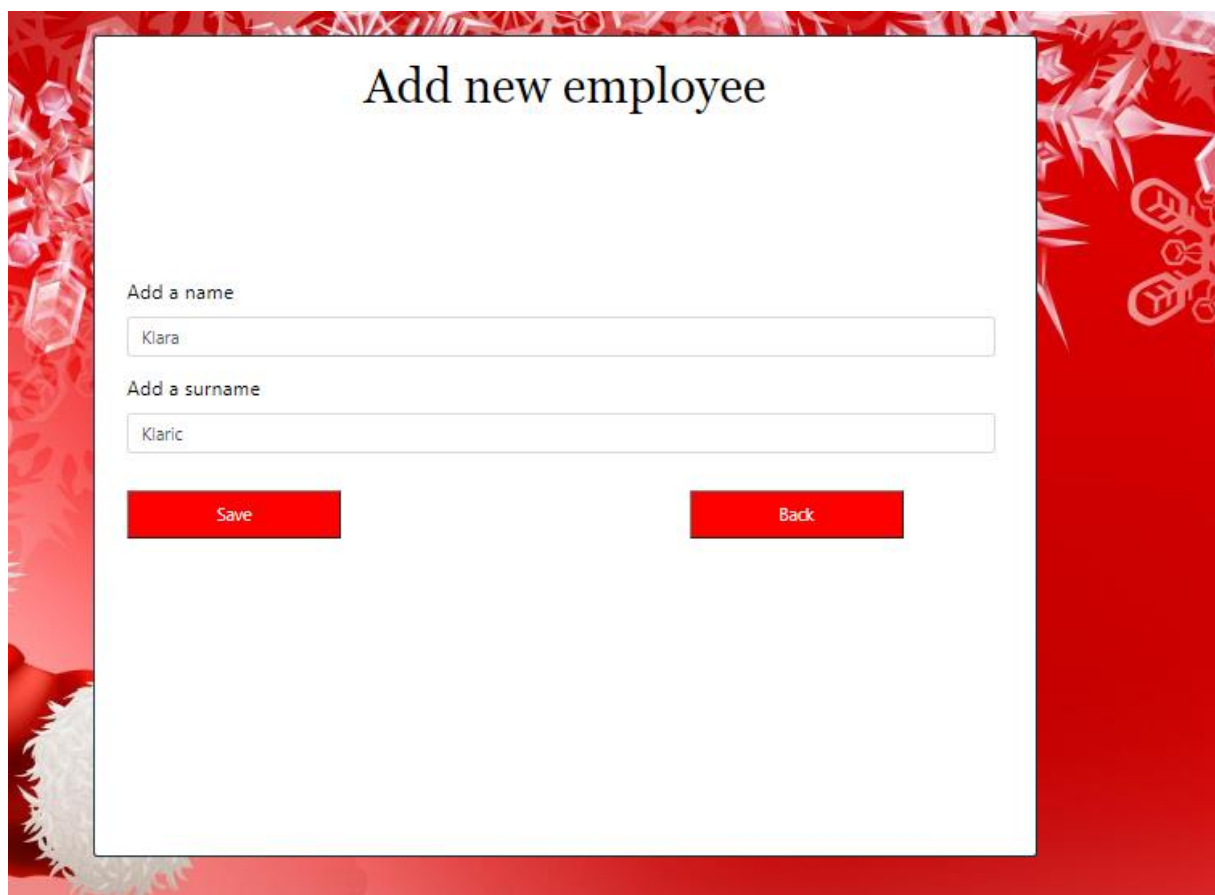
If you enter a duplicate name or surname or have empty inputs the message is „Duplicates and empty inputs are not allowed“. If everything is OK the message is „Successfully added“.

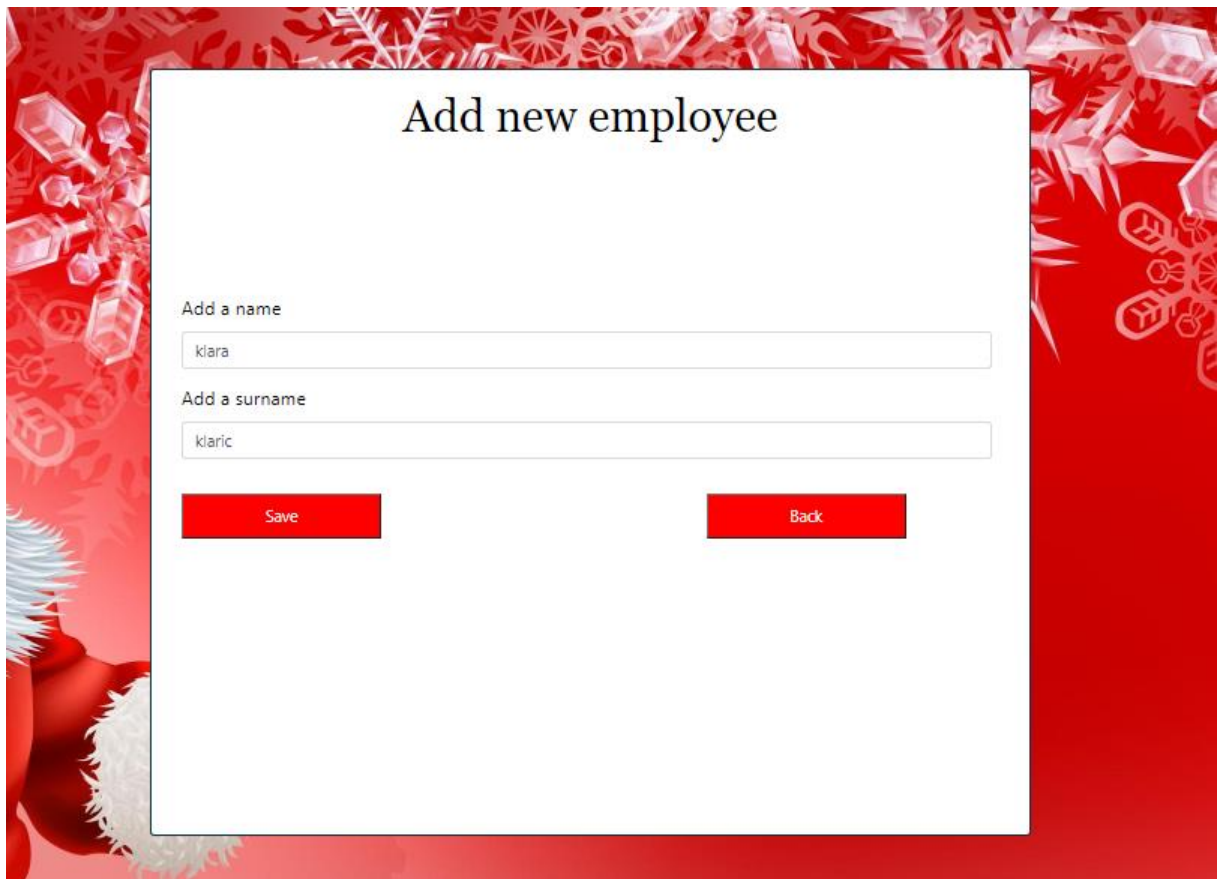
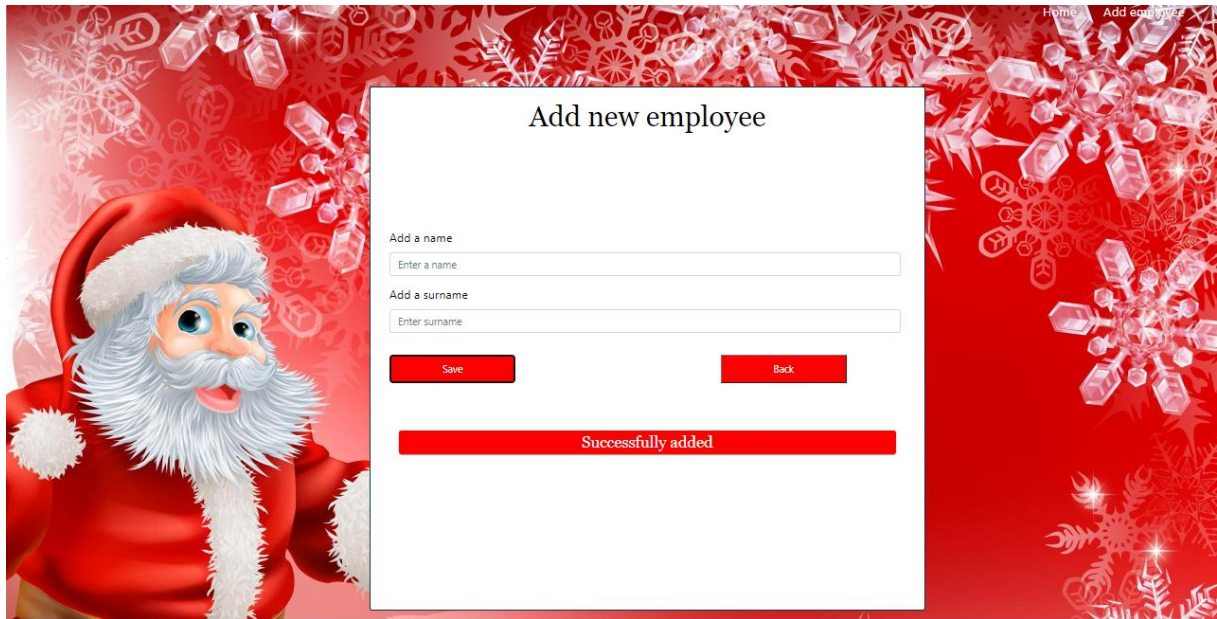
On the frontend, I create Component, Cards using React bootstrap. The name and surname I put in a JSON object and using Axios I send that data to backend. On the backend side, the sent JSON objects are on the route <http://localhost:5000/employees> .

## Backend explanation

For the backend side I used Node.js. To store a data from the frontend on the backend side I used Linked list that I implement with Node and 2 attributes head pointer and size variable. In this way, the adding function have now complexity  $O(1)$  and it is so good for time running the operation. The code is in the StoreRoute.js. Also, for the backend side I used some of design patterns and they help me to have clear and reusable code.

The screenshots of the application.





## Add new employee

Add a name

Add a surname

[Save](#) [Back](#)

Duplicates and empty inputs are not allowed

After adding new employees and with click Match the matching employees are on the picture.

## SECRET SANTA

[Match](#) [Add new employee](#)

Report

Klara Klaric->Ena Enic   Paja Pajic->Seho Sehic   Ena Enic->Niko Nikoc   Niko Nikoc->Paja Pajic   Seho Sehic->Klara Klaric

[Export as pdf](#)



# SECRET SANTA

Match

Add new employee

Report

Anna Hug->Emma Martin   Eric Smith->Daniel Wild   Liam  
Brown->Jessica Lauren   Thomas Jonson->Anna Hug   Alex Pitt-  
>Eric Smith   Jessica Lauren->Liam Brown   Daniel Wild->Alex  
Pitt   Emma Martin->Thomas Jonson

Export as pdf

# SECRET SANTA

Match

Add new employee

Report

Anna Hug->Emma Martin   Alex Pitt->Daniel Wild   Thomas  
Jonson->Liam Brown   Liam Brown->Thomas Jonson   Eric  
Smith->Alex Pitt   Emma Martin->Anna Hug   Jessica Lauren-  
>Eric Smith   Daniel Wild->Jessica Lauren

Export as pdf

# SECRET SANTA

Match

Add new employee

Report

Daniel Wild->Alex Pitt   Ricky Martin->Thomas Jonson   Jessica  
Lauren->Anna Hug   Anna Hug->Daniel Wild   Eric Smith-  
>Jessica Lauren   Liam Brown->Emma Martin   Emma Martin-  
>Eric Smith   Alex Pitt->Ricky Martin   Emily Elo->Liam  
Brown   Thomas Jonson->Emily Elo

Export as pdf

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Daniel Wild->Alex Pitt   Ricky Martin->Thomas Jonson   Jessica  
Lauren->Anna Hug   Anna Hug->Daniel Wild   Eric Smith-  
>Jessica Lauren   Liam Brown->Emma Martin   Emma Martin-  
>Eric Smith   Alex Pitt->Ricky Martin   Emily Elo->Liam  
Brown   Thomas Jonson->Emily Elo