

User Manual



Employee Manager

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Introduction

Welcome to the Employee Manager User Manual! This manual is designed to guide you through the functionalities and operations of the software that is tailored to manage user data and visualize hierarchical relationships within an organization.

The Employee Manager System is an innovative solution that streamlines the process of organizing and visualizing organizational structures. This software offers an intuitive interface for storing and managing user data while dynamically constructing visual hierarchy tree graphs. These graphs illustrate the reporting structure within your organization, providing a comprehensive and easily navigable overview of the relationships between users, their roles, and their reporting managers.

Key Features:

- **User Data Management:** The system allows you to input, store, and manage comprehensive user data including roles, personal information, contact information, and reporting information.
- **Visual Hierarchy Tree Graph:** The software dynamically generates visual representations of your organization's hierarchy, simplifying complex relationships and offering a clear and concise overview of reporting structures.

Requirements

To access the Employee Manager System you will need valid user credentials provided by your System Administrator. You will need a stable internet connection and one of the following browsers installed to access the web pages:

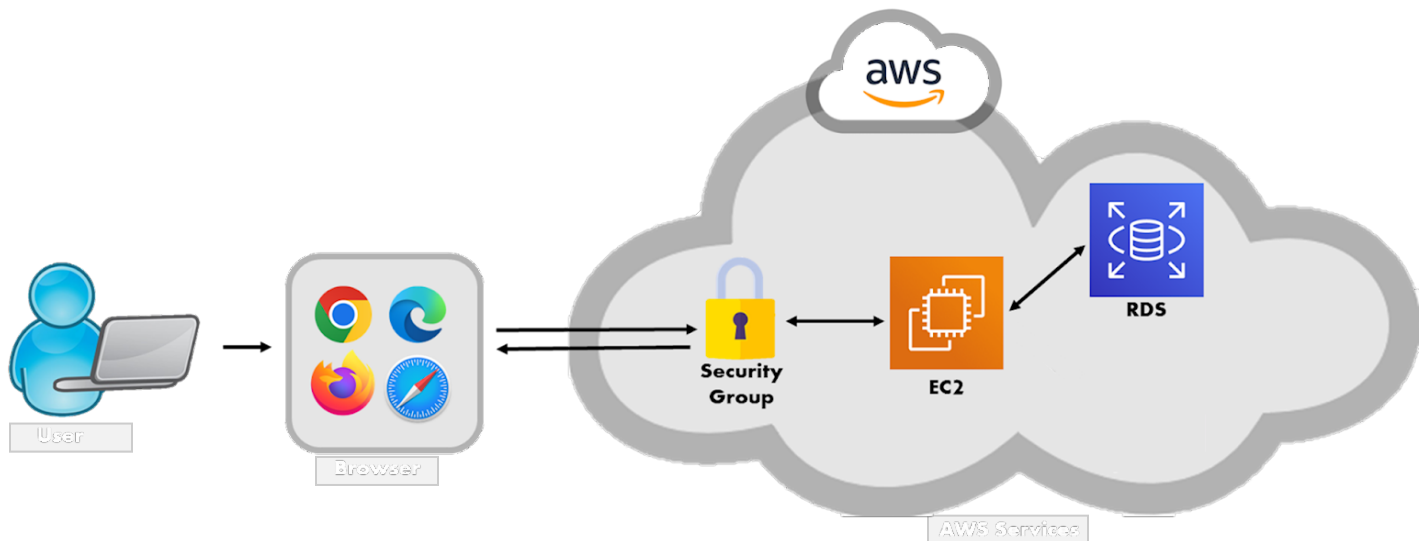
- Google Chrome
- Microsoft Edge
- Mozilla Firefox

You can download these browsers here if you do not have one installed yet:

- [Google Chrome](#)
- [Microsoft Edge](#)
- [Mozilla Firefox](#)

System Overview

Below is a System Diagram to understand how the system works, how data flows through the system and how the various components interact with one another to produce the EmployeeManager System.



System Access and Navigation

Access

The EmployeeManager website is available at:

<http://ec2-51-20-60-63.eu-north-1.compute.amazonaws.com>

As stated above, new users will need to be provided with their login credentials via the admin user or any other existing user in the system.

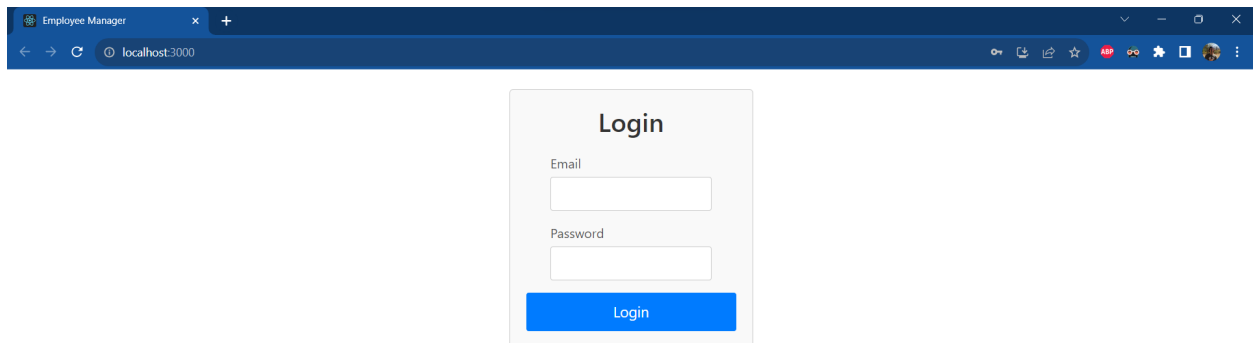
Admin Credentials:

Email: admin@gmail.com

Password: 1234

Login

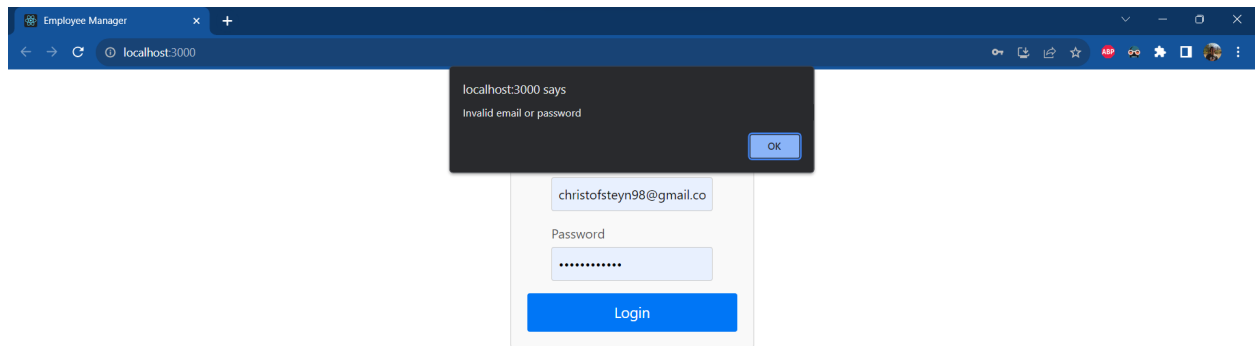
The link above will take you to the login page. Once you have obtained your login credentials, your email address and system password, you will be able to login.



The screenshot shows a web browser window with the title 'Employee Manager'. The address bar displays 'localhost:3000'. The main content area features a 'Login' form with the following elements:

- Login** (Section Header)
- Email** (Label) above a text input field.
- Password** (Label) above a text input field.
- Login** (Blue button)

If a user types in incorrect login credentials like an email and password that doesn't match or doesn't exist within the database, they will be prompted with an alert stating that the credentials are incorrect.



Authentication

Authentication takes place on the frontend of the project by checking if the given user email exists and the given password matches that email. Once a user has been added to the system, their credentials will be checked against the database and if everything checks out they will be granted access to the system. Session management is being used to store a user's login credentials in localstorage.

Home Page

Welcome to the home page! The homepage is where all of the functionality and features of the Employee Manager system live. Here the user can view his/her profile with a profile photo that is being pulled from the gravatar service(gravatar uses the email that is associated with the user in the 'User List', it is the same email used when logging in). The user is also able to add new users, edit current users and delete current users from the database.

The screenshot shows the 'Employee Manager' web application running on localhost:3000. The page features a 'Logout' button, a 'User Profile' section with a photo of Christof Steyn, and a 'User List' table. The table lists users with their IDs, names, and roles, along with 'Delete', 'Edit', and 'View' buttons. Below the table is a 'Create User' button. At the bottom, there is a 'Tree Hierarchy' diagram showing the organizational structure.

User Profile

User : Christof Steyn

Sort by name, surname, role, birthdate or maximum salary

Roles: 'Chief', 'Manager', 'Employee'

Birthdate: 'YYYY-MM-DD'

User List

2 : Christof Steyn	Delete	Edit	View
3 : Gerrit Steyn	Delete	Edit	View
4 : Pieter Nel	Delete	Edit	View
5 : Pieter Verster	Delete	Edit	View
6 : Erika Pretorius	Delete	Edit	View
7 : Jaco Steyn	Delete	Edit	View
8 : Amoret Louw	Delete	Edit	View

Create User

Tree Hierarchy

```
graph LR
    C1[Chief : Christof Steyn] --- M1[Manager : Gerrit Steyn]
    C1 --- M2[Manager : Erika Pretorius]
    M1 --- E1[Employee : Pieter Nel]
    M1 --- E2[Employee : Pieter Verster]
    M2 --- E3[Employee : Amoret Louw]
```


At the top left it will also show the user a logout button and when clicked it will redirect the user to the login page and discard the user's stored session. Underneath the logout button is also some basic user information like the Name and Surname of the logged in user as well as his/her profile photo that is being fetched from gravatar.

Logout

User Profile



User : Christof Steyn

Underneath the 'User Profile' is the 'User List'. This is the list with all the users in the organization. Next to each user a few buttons that provide different functionality, this functionality will be explained in detail later on in the document. Just above the list on the right hand side is a search bar. Here the user can search the user list based on the provided Name, Surname, Role, Birthday and Sort the List based on a maximum provided salary.

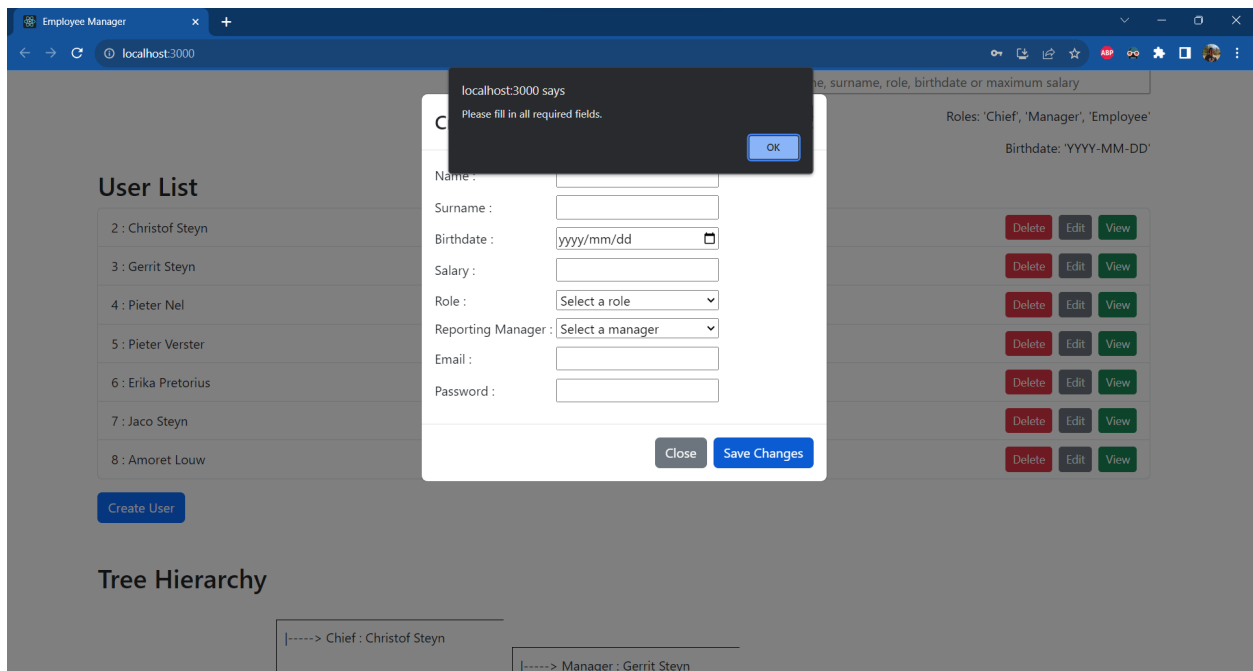
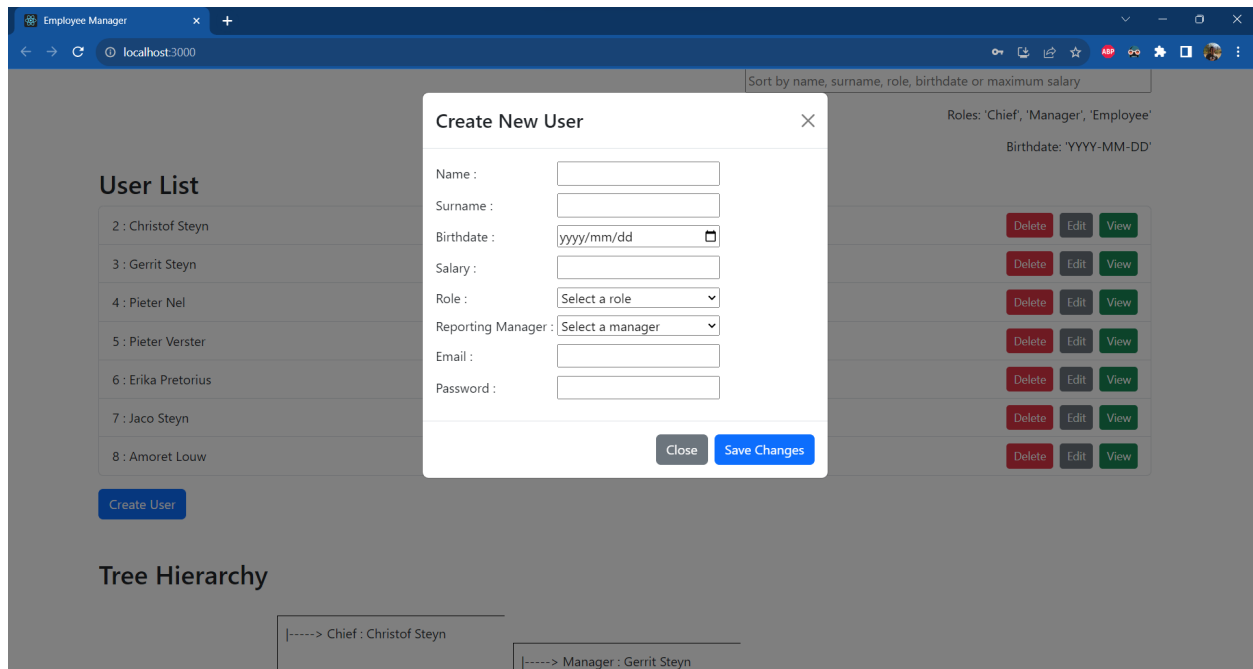
Sort by name, surname, role, birthdate or maximum salary

Roles: 'Chief', 'Manager', 'Employee'

Birthdate: 'YYYY-MM-DD'

User Creation

When the 'Create User' button is clicked it will display a popup to the user. In this popup the user can add all the necessary details for adding a new user to the system, like Name, Surname, Salary, Birthdate, Reporting Manager, Role, Email and Password.



A user will need to fill out all the fields otherwise the new user won't get added to the system, as seen on the previous page. Adding users to the system is done asynchronously, this means that the data is loaded automatically without the need to refresh the page.

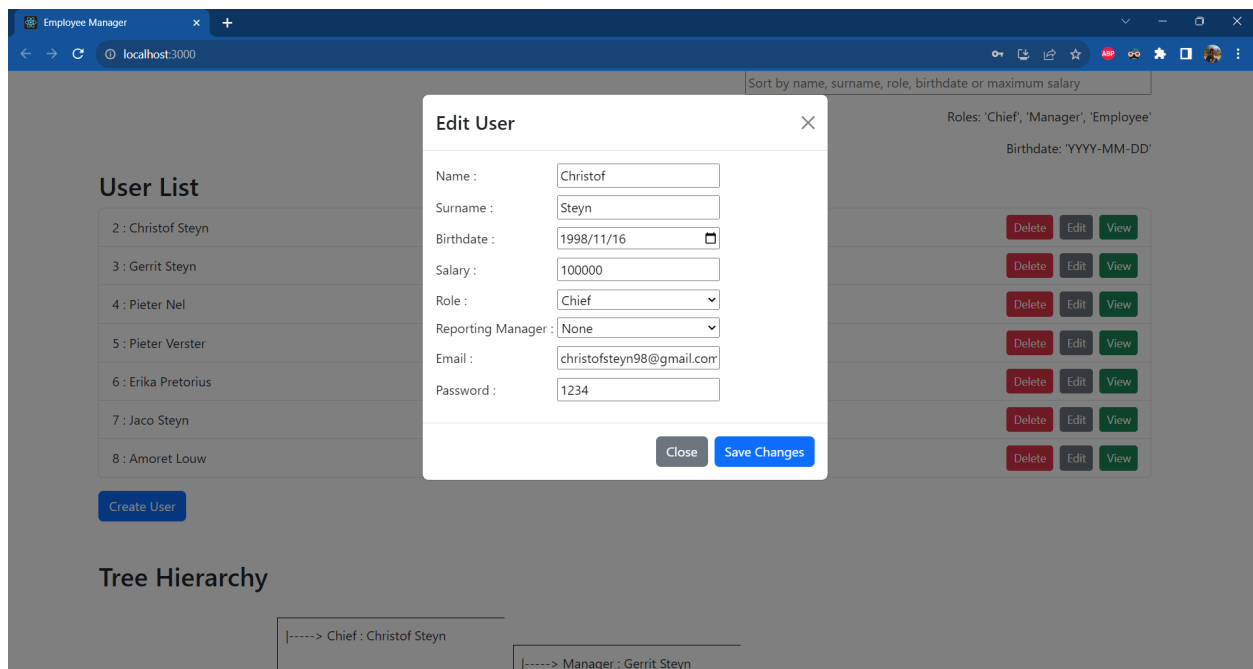
When a User is created with the 'Chief' role, the only option available in the 'Reporting Manager' dropdown will be 'None'. This is because 'Chief' is the highest role in the company and these users don't report to anyone, they are their own boss. The 'Manager' role can only report to 'Chief' roles and the 'Employee' role can report to both 'Chief' and 'Manager' roles.

User Editing

Next to each user in the 'User List' is a edit button that looks like this.



Once a user clicks this button a popup will appear that will show all the selected user's details. All the displayed details are editable, but just like with the user creation, all fields need to be populated otherwise the user wont be edited. Once the changes are made and the 'Save Changes' button is clicked the new details will be stored and displayed in the list.



Please note that if a user with a 'Chief' or 'Manager' role is changed to a different role, the user first needs to reassign all Employees who's reporting manager is that user to someone else. This will ensure that the generated Tree Graph keeps to the 3 tier/level structure and display all users correctly within this tree.

User Deleting

Next to each user in the 'User List' is a delete button that looks like this.



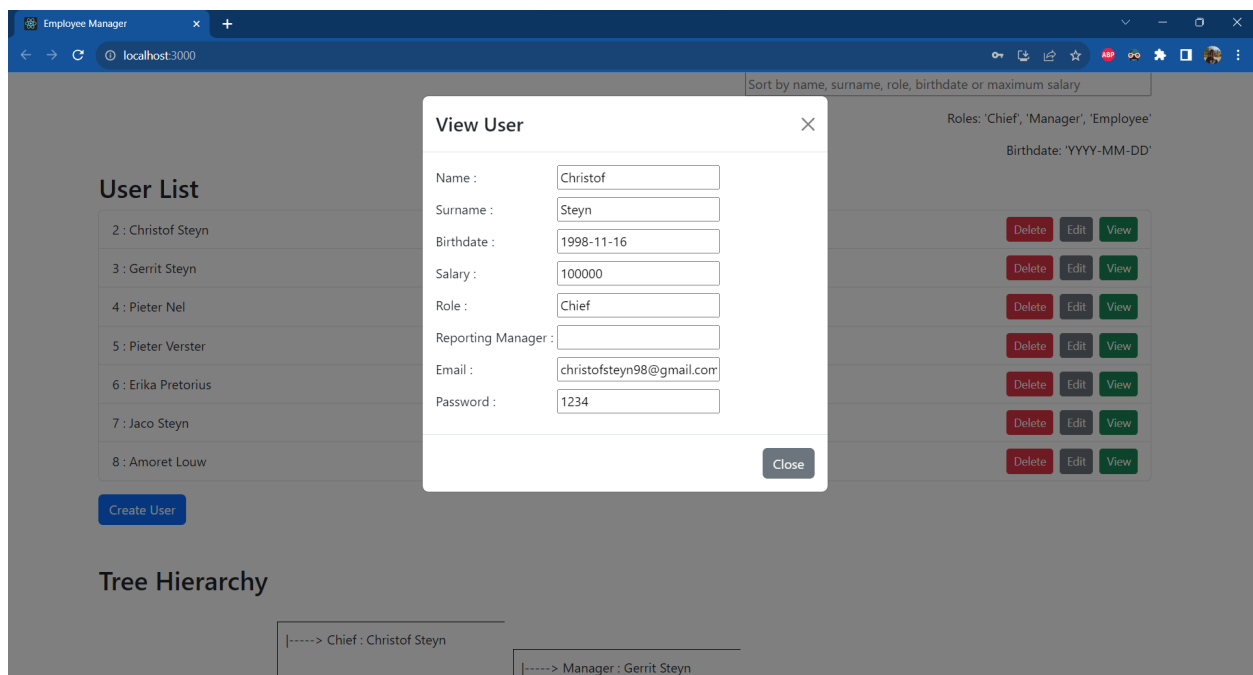
Once a user clicks this button the system will immediately remove the selected user from the 'User List' and unlink the user from the generated Tree Graph.

User Viewing

Next to each user in the 'User List' is a delete button that looks like this.



When the user click this button the system will show a popup with all of the selected user's details. Here the user can only view the personal details of the selected user. No editing or any other actions can be performed on this popup.



Tree Hierarchy

The final component of the Employee Manager system is the generated Tree Graph. When Users are added the system will automatically build and display a Tree style graph that visually represents the employee hierarchy of the organization. The Employee Manager System is fully Asynchronous, this means that the user won't ever need to manually refresh the webpage in order to display the correct data, the system does that automatically and it's the same with the tree graph.

The graph will regenerate each time a new user is added, deleted, when a current user's role is changed or even when a current user's reporting manager is changed to someone else.

There are only 3 roles in the system to choose from when creating or editing users. These roles are, 'Chief' (this is the top level of the organization and refers to roles like CEO, CTO, CFO, COO etc.), 'Manager' (this role refers to managing roles and positions like a Department Manager, Team Manager etc.) and 'Employee' (this role refers to the normal employees within the company that don't have a "managing" role). This represents the 3 tier/level role structure.

Tree Hierarchy

