

EMS USER MANUAL

Cameron Taberer

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User Manual for EPI-USE Africa Employee Management System (EMS)

Hosted Web Site: <https://employeemanagementprogrameta.azurewebsites.net/>

GitHub: https://github.com/CameronTaberer/Employee_Management_Program

1. Introduction

Welcome to the EPI-USE Africa Employee Management System (EMS)! This cloud-based platform allows for efficient management of employee data, organizational hierarchy, and position customization within our company.

2. Getting Started

To access the EMS, navigate to the provided URL on any standard web browser. You will be greeted with the Employee Table View, which is the default landing page.

3. Navigation

The EMS is organized into six main sections accessible via tabs at the top of the interface:

1. **Employee Table View:** View and manage all employee records in a tabular format.
2. **Employee Organization Structure View:** Visualize and manage the organization's hierarchy.
3. **Customize Positions:** Create and manage company positions and their hierarchy levels.
4. **User Manual:** View user manual and information about the web app.
5. **Technical Document:** Discusses system architecture and technologies and their motivation for use.
6. **Assessment Brief:** Access the assessment brief document.

4. Employee Table View

This section presents a detailed list of all employees. Each record displays the employee's profile photo (Gravatar), number, name, email, birth date, salary, position, line manager, and available actions.

Profile Photo	Employee No.	Full Name	Email	Birth Date	Salary	Position	Line Manager	Actions
	1000	Cameron Taberer	camerontaberer@icloud.com	13-06-2024	R100,000.00	CEO	N/A	
	1001	Alexis Terblanche	alexisterblanche@gmail.com	09-11-2024	R90,000.00	Vice President	Cameron Taberer	
	1002	Sergio Singh	97sergio@gmail.com	11-03-2024	R85,000.00	Director	Alexis Terblanche	
	1003	CJ Eckley	cjeckley01@gmail.com	10-04-2024	R80,000.00	Director	Alexis Terblanche	
	1004	David Brown	david.brown@example.com	30-12-2024	R75,000.00	Team Lead	Sergio Singh	

Figure 1: Employee Table View

Employee Table View Toolbar:

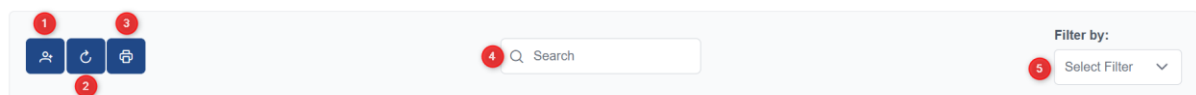


Figure 2: Employee Table Toolbar

1. **Add New Employee:** Click the "+ user" icon to add a new employee.
2. **Refresh Data:** Refresh the employee list with the latest data by clicking the "Refresh" icon.
3. **Export Data:** Export the employee list as a PDF using the "Print" icon.

Employee No.	Full Name	Email	Position	Line Manager
1000	Cameron Taberer	camerontaberer@icloud.com	CEO	N/A
1012	Ernois Taberer	ernois.taberer@gmail.com	Vice President	Cameron Taberer
1001	Alexis Terblanche	alexisterblanche@gmail.com	Director	Ernois Taberer
1002	Sergio Singh	97sergio@gmail.com	Director	Ernois Taberer
1003	CJ Eckley	cjeckley01@gmail.com	Manager	Sergio Singh
1004	David Brown	david.brown@example.com	Manager	Sergio Singh
1008	Brian Wilson	brian.wilson@example.com	Manager	Alexis Terblanche
1005	Elizabeth Jones	elizabeth.jones@example.com	Team Lead	Brian Wilson
1006	Christopher Garcia	christopher.garcia@example.com	Team Lead	CJ Eckley
1007	Jessica Martinez	jessica.martinez@example.com	Software Engineer	Elizabeth Jones
1009	Luco Meyer	luco.meyer@gmail.com	Software Engineer	Christopher Garcia
1010	Natalie Taberer	taberer@gmail.co.za	Software Engineer	David Brown
1011	Chloe Taberer	chloe.taberer@gmail.com	Software Engineer	David Brown

Figure 3: Employee Table PDF Export

- The export button allows the user to export the employee table as a pdf document, excluding personal information such as birth date and salary.

4. **Search:** Use the search bar to search for a record that matches or includes a search string.

The screenshot shows the 'Employee Table View' interface. At the top, there are navigation tabs: 'Employee Table View' (selected), 'Employee Organisation Structure View', 'Customize Positions', 'User Manual', 'Technical Document', and 'Assessment Brief'. Below the tabs is a search bar with the text 'alex' and a 'Filter by:' dropdown menu set to 'Select Filter'. The table below has columns: Profile Photo, Employee No., Full Name, Email, Birth Date, Salary, Position, Line Manager, and Actions. Two rows are visible: one for Alexis Terblanche (Employee No. 1001, Director) and one for Brian Wilson (Employee No. 1008, Manager). The 'Full Name' of Alexis Terblanche and the 'Line Manager' of Brian Wilson are highlighted with red boxes. The pagination shows 1 of 5 items.

Profile Photo	Employee No.	Full Name	Email	Birth Date	Salary	Position	Line Manager	Actions
	1001	Alexis Terblanche	alexisterblanche@gmail.com	09-11-2024	R90,000.00	Director	Errois Taberer	
	1008	Brian Wilson	brian.wilson@example.com	05-11-2024	R55,000.00	Manager	Alexis Terblanche	

Figure 4: Search Demonstration

- As can be seen in the above search, no filter was selected and by default, therefore the search string will apply to all the employee data attributes and return all employee objects where the search string appears.
5. **Filter:** Use "Filter by" dropdown to narrow down your employee list based on specific criteria; this allows you to select which employee data attribute the search string applies to.

The screenshot shows the 'Employee Table View' interface with the 'Filter by:' dropdown menu set to 'Manager'. The search bar still contains 'alex'. The table now only displays one row for Brian Wilson (Employee No. 1008, Manager). The 'Line Manager' of Brian Wilson, Alexis Terblanche, is highlighted with a red box. The pagination shows 1 of 5 items.

Profile Photo	Employee No.	Full Name	Email	Birth Date	Salary	Position	Line Manager	Actions
	1008	Brian Wilson	brian.wilson@example.com	05-11-2024	R55,000.00	Manager	Alexis Terblanche	

Figure 5: Search & Filter Demonstration

- In the second search, the manager filter was selected and therefore only values where the manager attribute matches the search term are returned.

5. Employee Organisation Structure View:

This section presents the employees of the organisation in a collapsible organisation chart. Each node displays the employee's profile photo (Gravatar), name, position, and available actions.

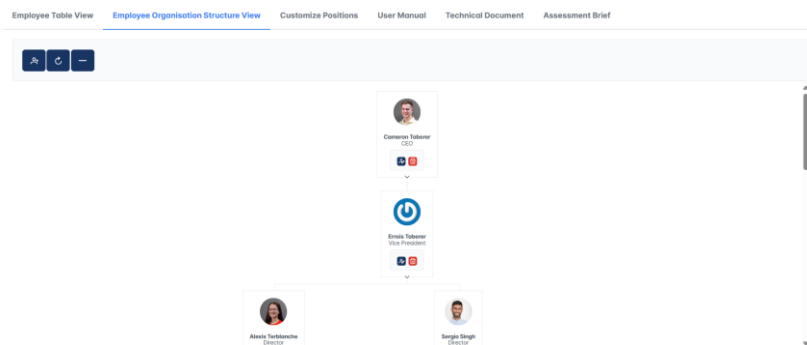


Figure 6: Employee Organisation Structure View

Employee Structure View Toolbar:

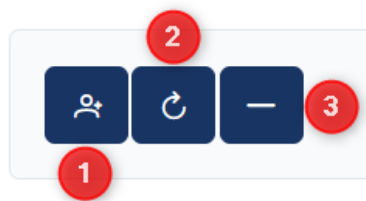


Figure 7: Employee Structure View Toolbar

1. **Add New Employee:** Click the "+ user" icon to add a new employee.
2. **Refresh Data:** Refresh the employee list with the latest data by clicking the "Refresh" icon.
3. **Zoom-in/Zoom-Out Button**

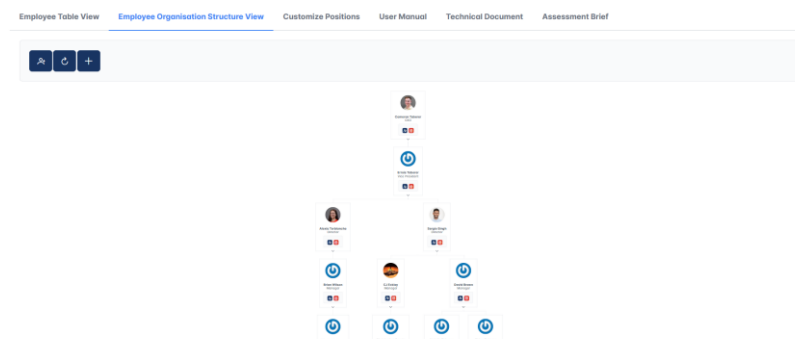


Figure 8: Employee Organisation Structure View Zoomed-Out

- When this button is clicked it allows the user to zoom out to see the bigger picture in terms of organisational structure.

6. Customize Positions:

The "Customize Positions" tab in the Employee Management System is a dedicated area for managing the various roles within the organization in terms of the role names and their hierarchy. The hierarchy dictates which positions are higher or lower than others.

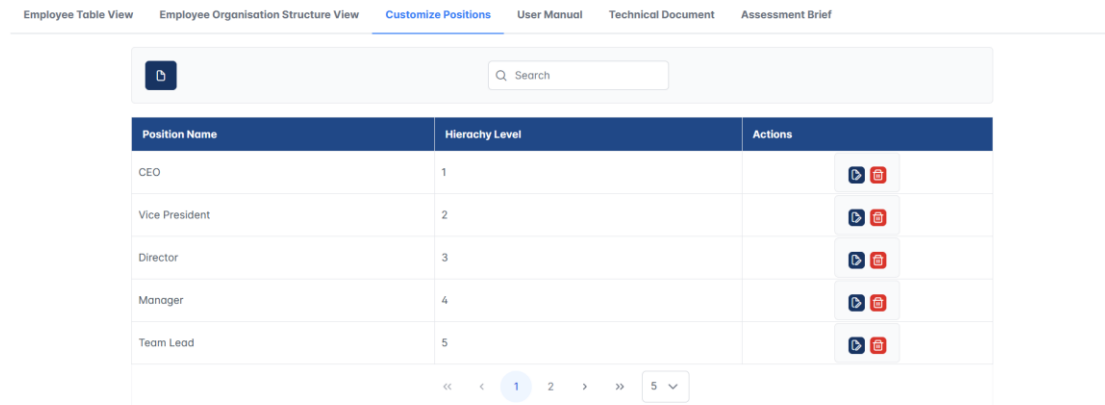


Figure 9: Customize Position

Customize Positions Toolbar:

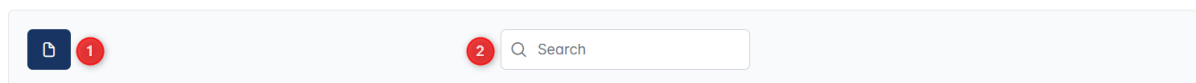


Figure 10: Customize Positions Toolbar

- 1. Add New Position:** Click the “new page” icon to add a new position.
- 2. Search Positions:** Search for a position by entering a search string.

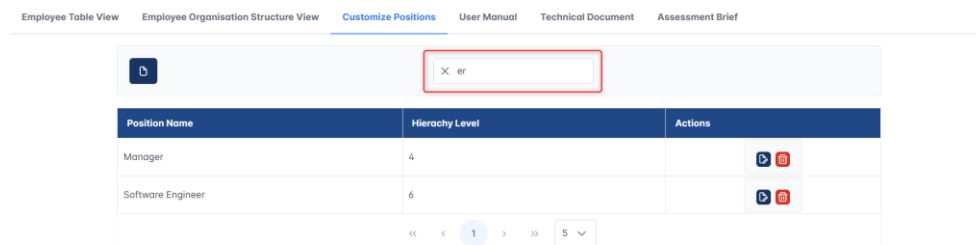


Figure 11: Search Positions

- When the user enters a search term into the search bar, positions matching the name or hierarchy entered are returned.

7. CRUD Operations:

Customizing Positions

The Customize Positions tab in the Employee Management System is an essential feature that enables administrators to create and manage the various roles within the organization. This function is crucial for establishing a clear hierarchy that defines which positions report to others.

To create a new role within your organization:

1. Go to the **Customize Positions** tab.

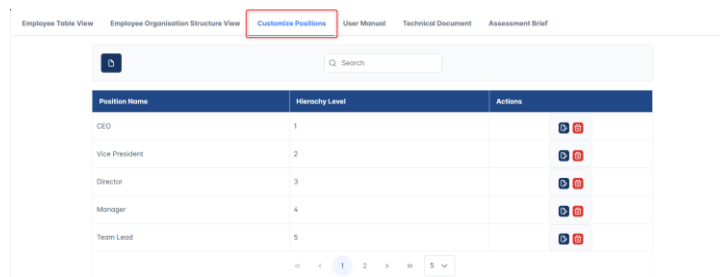


Figure 12: Customize Positions Tab

2. Click the **Add New Position** button, represented by an icon with a document symbol.

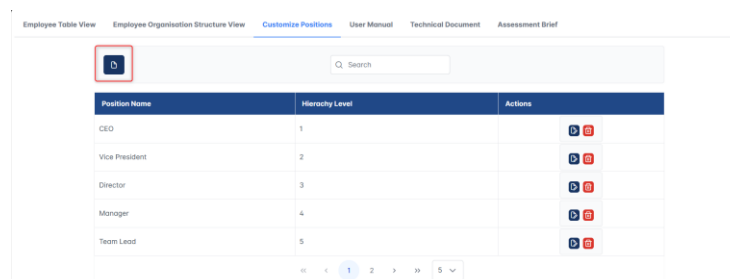


Figure 13: Click Add New Position

3. In the pop-up modal, enter the **Name** of the position and the **Hierarchy Level**. The hierarchy level is a numerical value that determines the position's level within the organization, with a lower number indicating a higher rank.

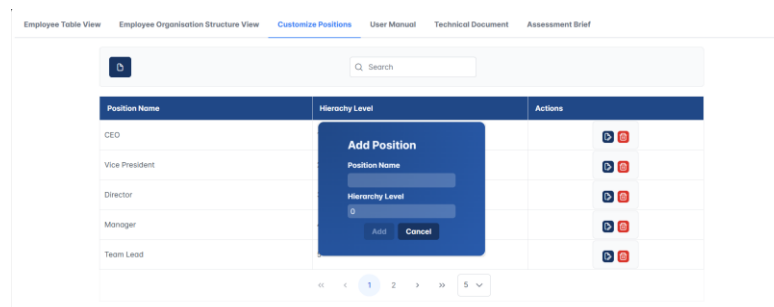


Figure 14: Add Position Modal

4. Press **Add** to add the position to the organizational structure.

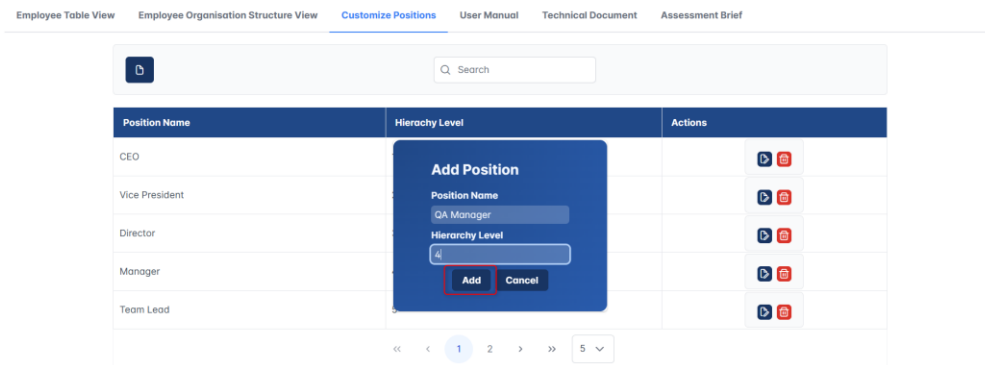
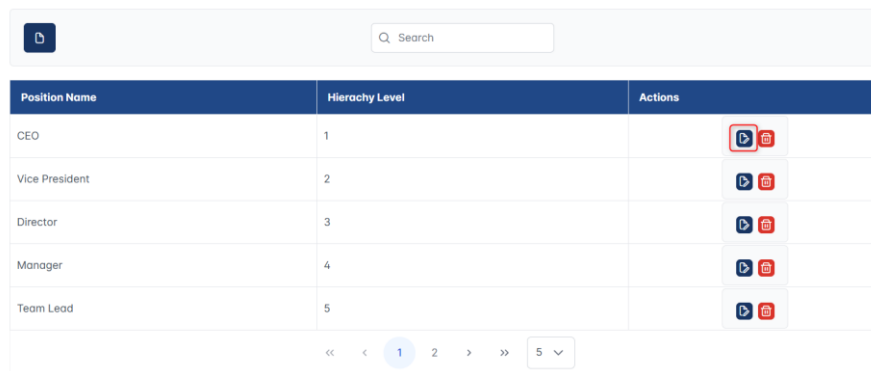


Figure 15: Click "Add" to Add Position

To modify an existing position:

1. Find the position you wish to update in the list.
2. Click the **Update Position** icon, which looks like a document with a pencil.



3. Figure 16: Select Position to Update

4. In the modal that appears, change the position's **Name** or **Hierarchy Level** as needed.

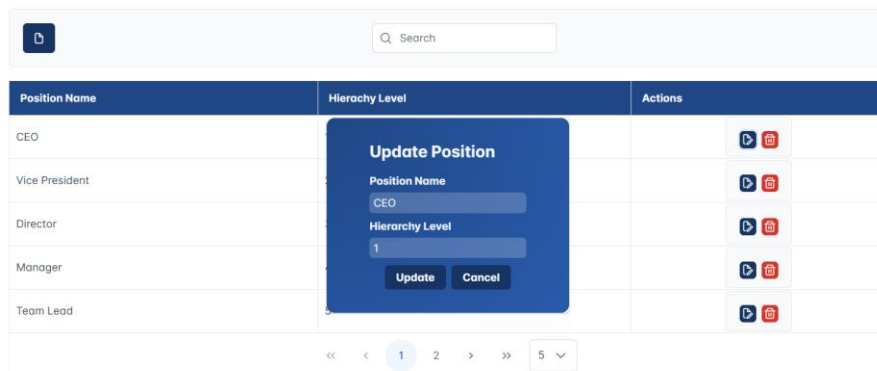


Figure 17: Change Position Data

5. Click **Update** to confirm the changes.

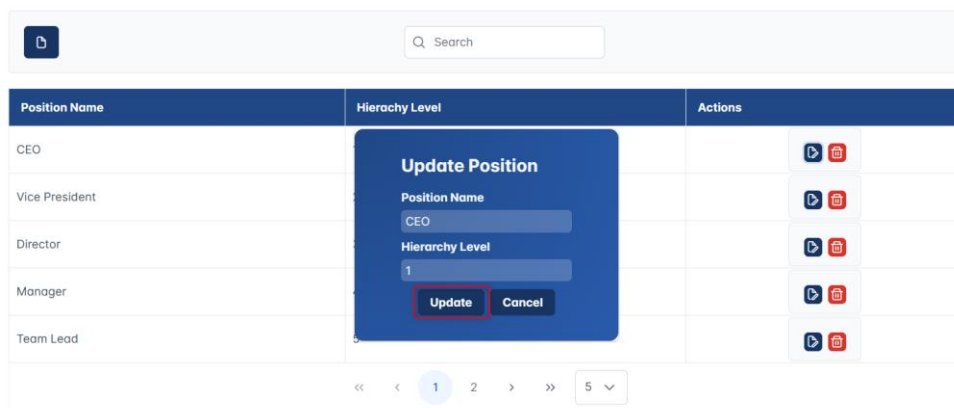


Figure 18: Click Update to Update Position

To remove a position from the hierarchy:

1. Locate the desired position from the list.
2. Press the **Delete Position** icon, depicted as a trash bin.

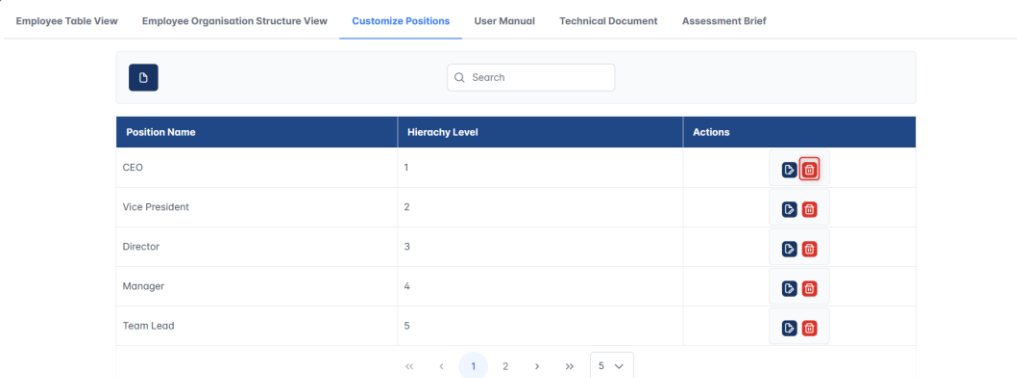


Figure 19: Click Delete Icon

3. A confirmation dialog will appear to ensure that you want to remove the selected position.

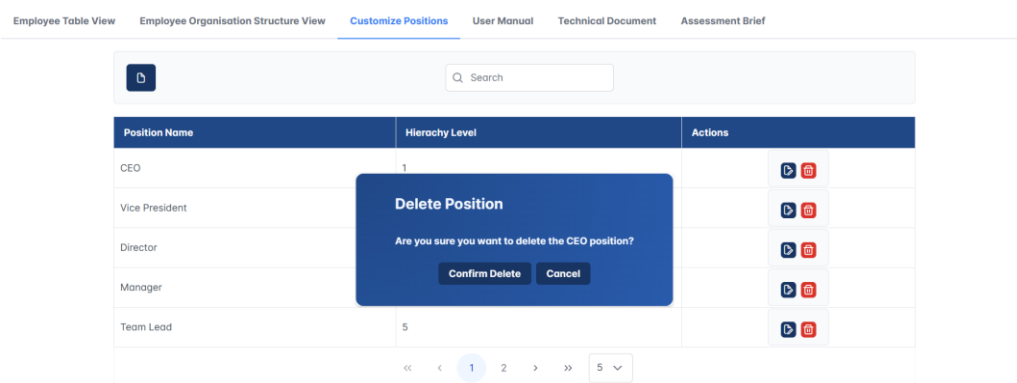


Figure 20: Delete Position Confirmation

- Confirm your choice by selecting **Confirm**. This action will permanently remove the position.

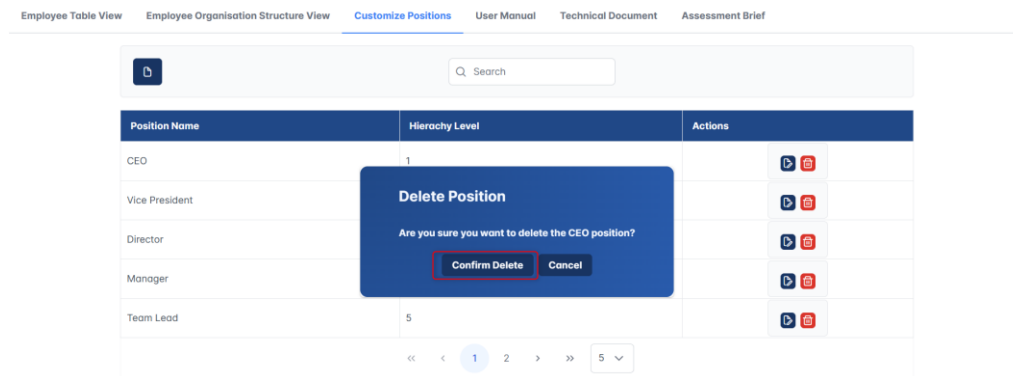


Figure 21: Click to Confirm Deleting Position

- Delete Error Appears if there is a problem connecting to the database or if there is a foreign key restriction.

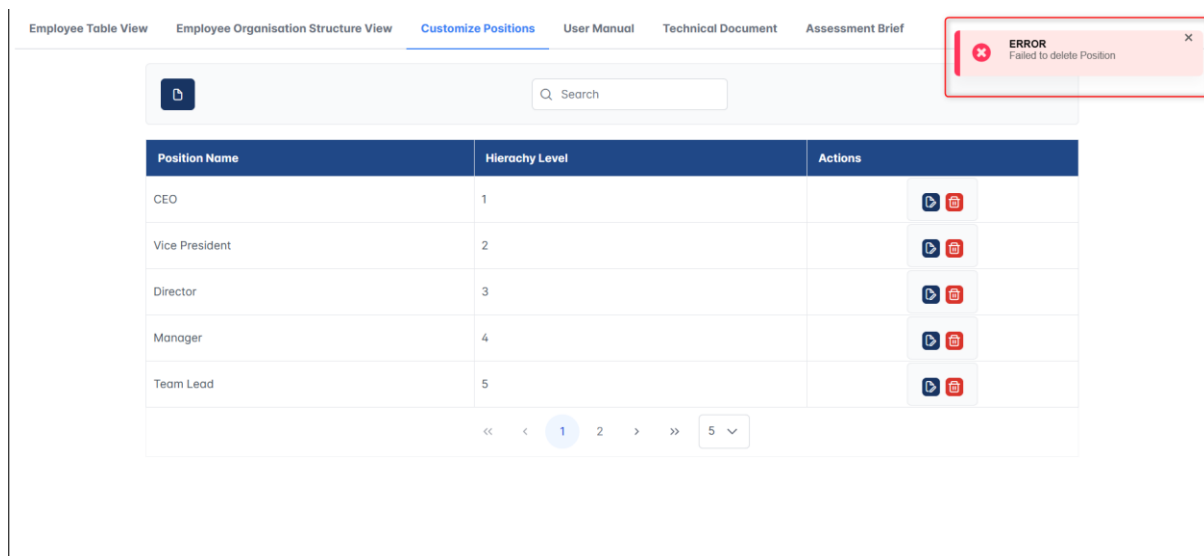


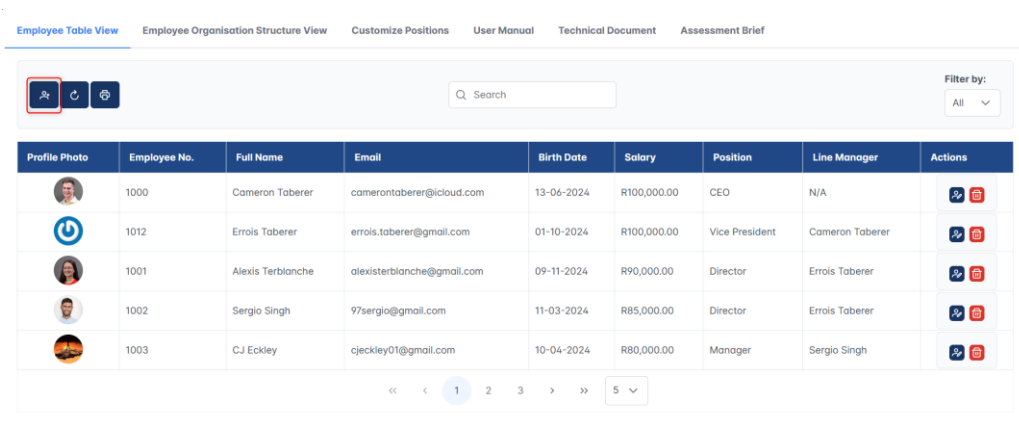
Figure 22: Delete Error if Position Cannot Be Deleted

8. Managing Employee Records

The Managing Employees section of the Employee Management System is where user interactions with employee data take place. This includes adding, updating, and deleting employee records, as well as managing their reporting structures. This can be done from both the employee table view and the tree structure view.

To add an employee to the system:

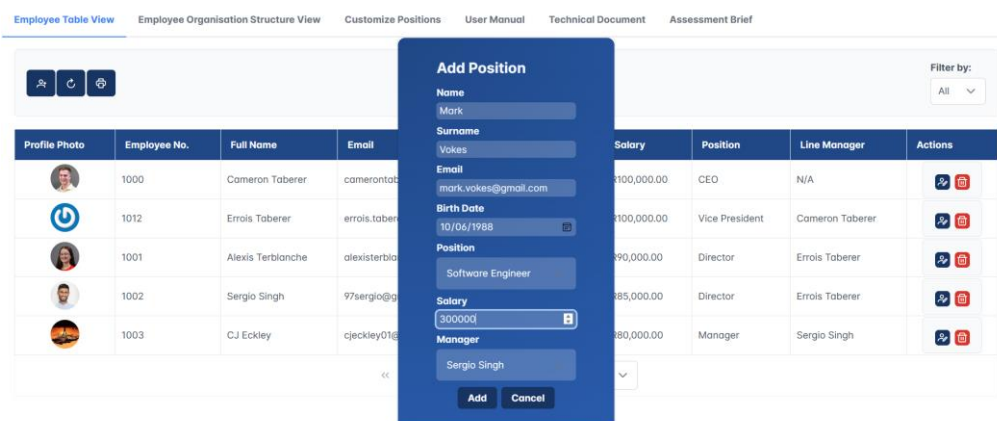
1. Click the **Add New Employee** button in the **Employee Table View** or **Tree Structure View** tabs.



Employee Table View Employee Organisation Structure View Customize Positions User Manual Technical Document Assessment Brief								
<div><div><div><div></div></div><div><div></div></div><div><div></div></div></div><div><input type="text" value="Search"/></div><div>Filter by: All</div></div>								
Profile Photo	Employee No.	Full Name	Email	Birth Date	Salary	Position	Line Manager	Actions
	1000	Cameron Taberer	camerontaberer@icloud.com	13-06-2024	R100,000.00	CEO	N/A	
	1012	Errois Taberer	errois.taberer@gmail.com	01-10-2024	R100,000.00	Vice President	Cameron Taberer	
	1001	Alexis Terblanche	alexisterblanche@gmail.com	09-11-2024	R90,000.00	Director	Errois Taberer	
	1002	Sergio Singh	97sergio@gmail.com	11-03-2024	R85,000.00	Director	Errois Taberer	
	1003	C.J. Eckley	cjeckley01@gmail.com	10-04-2024	R80,000.00	Manager	Sergio Singh	
<div>« < 1 2 3 > » 5</div>								

Figure 23: Click 'Add New Employee' Button

2. Fill in the employee's details, including **Name**, **Surname**, **Email**, **Birth Date**, **Position**, and **Salary**. It's important to note that the email address must be unique; duplicate emails are not permitted.



Employee Table View Employee Organisation Structure View Customize Positions User Manual Technical Document Assessment Brief								
<div><div><div><div></div></div><div><div></div></div><div><div></div></div></div><div><input type="text" value="Search"/></div><div>Filter by: All</div></div>								
Profile Photo	Employee No.	Full Name	Email	Birth Date	Salary	Position	Line Manager	Actions
	1000	Cameron Taberer	camerontab		R100,000.00	CEO	N/A	
	1012	Errois Taberer	errois.taber		R100,000.00	Vice President	Cameron Taberer	
	1001	Alexis Terblanche	alexisterbla		R90,000.00	Director	Errois Taberer	
	1002	Sergio Singh	97sergio@g		R85,000.00	Director	Errois Taberer	
	1003	C.J. Eckley	cjeckley01g		R80,000.00	Manager	Sergio Singh	
<div>« < 1 2 3 > » 5</div>								

Add Position

Name

Mark

Surname

Vokes

Email

mark.vokes@gmail.com

Birth Date

10/06/1988

Position

Software Engineer

Salary

300000

Manager

Sergio Singh

Add

Cancel

Figure 24: Fill in Relevant Information

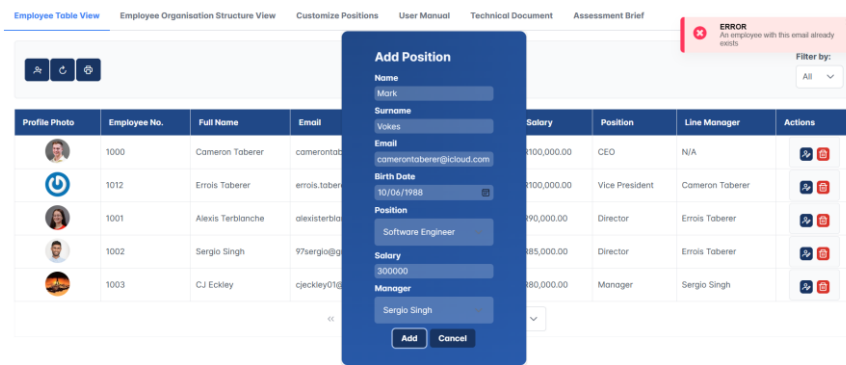


Figure 25: Cannot Add Employee with the Same Email Twice

- The **Position** and **Manager** dropdown will dynamically adjust which positions and managers are displayed based on which dropdown is populated first. This is based on the hierarchy of the positions. For example, if you select vice president as the position the manager drop down will be populated only with people who are of a higher position than a vice president. are selectable based on the hierarchical level. Positions are restricted so that you cannot assign an employee to a position higher than their manager's level.

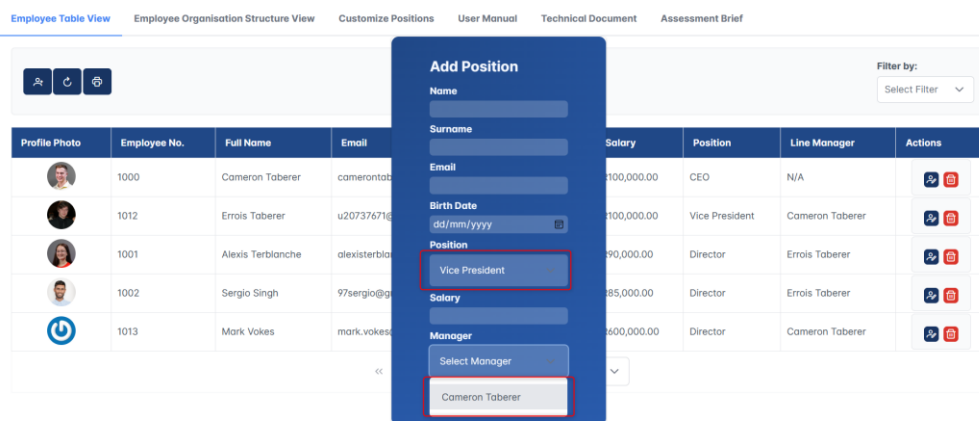


Figure 26: Position Drop-down Selected and Manger Dropdown Populated

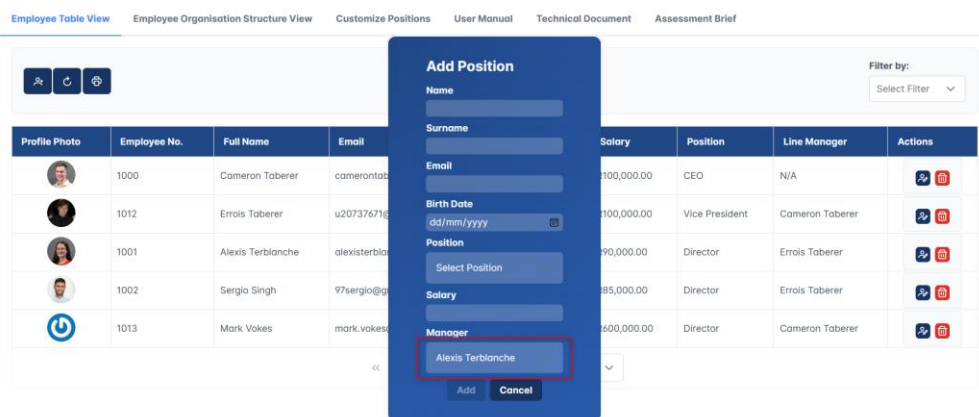


Figure 27: Manager Drop-down Selected and Position Dropdown Populated Part 1

Employee Table View Employee Organisation Structure View Customize Positions User Manual Technical Document Assessment Brief

Filter by: Select Filter

Profile Photo	Employee No.	Full Name	Email	Salary	Position	Line Manager	Actions
	1000	Cameron Taberer	camerontab@icloud.com	R100,000.00	CEO	N/A	
	1012	Errois Taberer	u20737671@tuks.co.za	R100,000.00	Vice President	Cameron Taberer	
	1001	Alexis Terblanche	alexisterblanche@gmail.com	R90,000.00	Director	Errois Taberer	
	1002	Sergio Singh	97sergio@gmail.com	R85,000.00	Director	Errois Taberer	
	1013	Mark Vokes	mark.vokes@gmail.com	R600,000.00	Director	Cameron Taberer	

Add Position

Name:

Surname:

Email:

Birth Date:

Position:

Manager:

Salary:

Figure 28: Manager Drop-down Selected and Position Dropdown Populated Part 2

- Once all fields are filled in correctly, the **Add** button will become active. Click it to save the new employee record.

Employee Table View Employee Organisation Structure View Customize Positions User Manual Technical Document Assessment Brief

Filter by: All

Profile Photo	Employee No.	Full Name	Email	Salary	Position	Line Manager	Actions
	1000	Cameron Taberer	camerontab@icloud.com	R100,000.00	CEO	N/A	
	1012	Errois Taberer	u20737671@tuks.co.za	R100,000.00	Vice President	Cameron Taberer	
	1001	Alexis Terblanche	alexisterblanche@gmail.com	R90,000.00	Director	Errois Taberer	
	1002	Sergio Singh	97sergio@gmail.com	R85,000.00	Director	Errois Taberer	
	1003	CJ Eckley	cjeckley@icloud.com	R80,000.00	Manager	Sergio Singh	

Add Position

Name:

Surname:

Email:

Birth Date:

Position:

Manager:

Salary:

Figure 29: Add Button Becomes Active

Employee Table View Employee Organisation Structure View Customize Positions User Manual Technical Document Assessment Brief

Filter by: Select Filter

Profile Photo	Employee No.	Full Name	Email	Birth Date	Salary	Position	Line Manager	Actions
	1000	Cameron Taberer	camerontab@icloud.com	13-06-2024	R100,000.00	CEO	N/A	
	1012	Errois Taberer	u20737671@tuks.co.za	01-10-2024	R100,000.00	Vice President	Cameron Taberer	
	1001	Alexis Terblanche	alexisterblanche@gmail.com	09-11-2024	R90,000.00	Director	Errois Taberer	
	1002	Sergio Singh	97sergio@gmail.com	11-03-2024	R85,000.00	Director	Errois Taberer	
	1013	Mark Vokes	mark.vokes@gmail.com	10-07-2024	R600,000.00	Director	Cameron Taberer	

1 2 3 5
















Figure 30: Added Successfully

To update an existing employee's details:

1. Click the **Update Employee** button next to their name in the **Employee Table View** or **Tree Structure View** tabs.

Employee Table View Employee Organisation Structure View Customize Positions User Manual Technical Document Assessment Brief

Filter by: Select Filter

Profile Photo	Employee No.	Full Name	Email	Birth Date	Salary	Position	Line Manager	Actions
	1000	Cameron Taberer	camerontaberer@icloud.com	13-06-2024	R100,000.00	CEO	N/A	 
	1012	Errois Taberer	u20737671@tuks.co.za	01-10-2024	R100,000.00	Vice President	Cameron Taberer	 
	1001	Alexis Terblanche	alexisterblanche@gmail.com	09-11-2024	R90,000.00	Director	Errois Taberer	 
	1002	Sergio Singh	97sergio@gmail.com	11-03-2024	R85,000.00	Director	Errois Taberer	 
	1013	Mark Vokes	mark.vokes@gmail.com	10-07-2024	R600,000.00	Director	Cameron Taberer	 
















<< < 1 2 3 > >> 5

Figure 31: Click Update Employee

2. Modify any of the employee's details in the form that appears.

Employee Table View Employee Organisation Structure View Customize Positions User Manual Technical Document Assessment Brief

Filter by: Select Filter

Profile Photo	Employee No.	Full Name	Email	Salary	Position	Line Manager	Actions
	1000	Cameron Taberer	camerontaberer@icloud.com	100,000.00	CEO	N/A	 
	1012	Errois Taberer	u20737671@tuks.co.za	100,000.00	Vice President	Cameron Taberer	 
	1001	Alexis Terblanche	alexisterblanche@gmail.com	90,000.00	Director	Errois Taberer	 
	1002	Sergio Singh	97sergio@gmail.com	85,000.00	Director	Errois Taberer	 
	1013	Mark Vokes	mark.vokes@gmail.com	600,000.00	Director	Cameron Taberer	 

Update Position

Name
Cameron

Surname
Taberer

Email
camerontaberer@icloud.com

Birth Date
13/06/2001

Position
Select Position

Salary
100000

Manager
Select Manager

Update Cancel

Figure 32: Modify Employee Data

- 3. Similar to adding an employee, the position and manager fields will limit selections based on the hierarchical structure.
- 4. The **Update** button will only be enabled if all form fields are completed correctly.

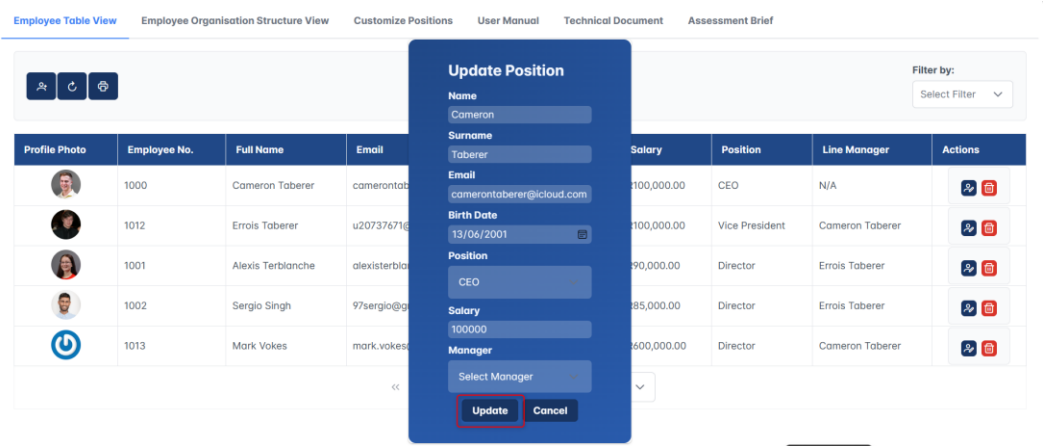


Figure 33: Add Button Becomes Active

- 5. Click **Update** to apply the changes.

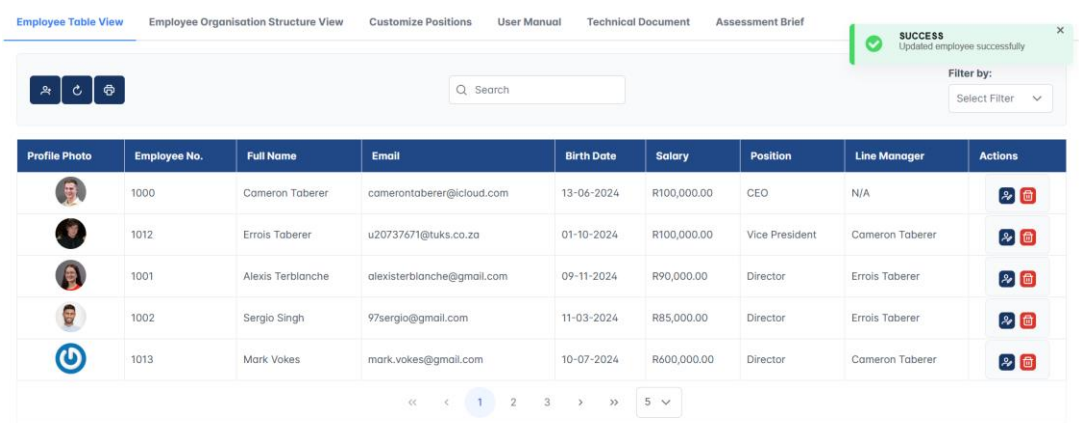





Figure 34: Employee Added Successfully

To remove an employee:
















1. Select the **Delete Employee** icon in their row in the **Employee Table View**.

Employee Table View Employee Organisation Structure View Customize Positions User Manual Technical Document Assessment Brief



Filter by:

Select Filter

Profile Photo	Employee No.	Full Name	Email	Birth Date	Salary	Position	Line Manager	Actions
	1000	Cameron Taberer	camerontaberer@icloud.com	13-06-2024	R100,000.00	CEO	N/A	 
	1012	Errois Taberer	u20737671@tuks.co.za	01-10-2024	R100,000.00	Vice President	Cameron Taberer	 
	1001	Alexis Terblanche	alexisterblanche@gmail.com	09-11-2024	R90,000.00	Director	Errois Taberer	 
	1002	Sergio Singh	97sergio@gmail.com	11-03-2024	R85,000.00	Director	Errois Taberer	 
	1013	Mark Vokes	mark.vokes@gmail.com	10-07-2024	R600,000.00	Director	Cameron Taberer	 

<< < 1 2 3 > >> 5

Figure 35: Click Delete Button

2. If the employee has subordinates, a modal will prompt you to reassign them before deletion. You must select a new manager for each subordinate employee.

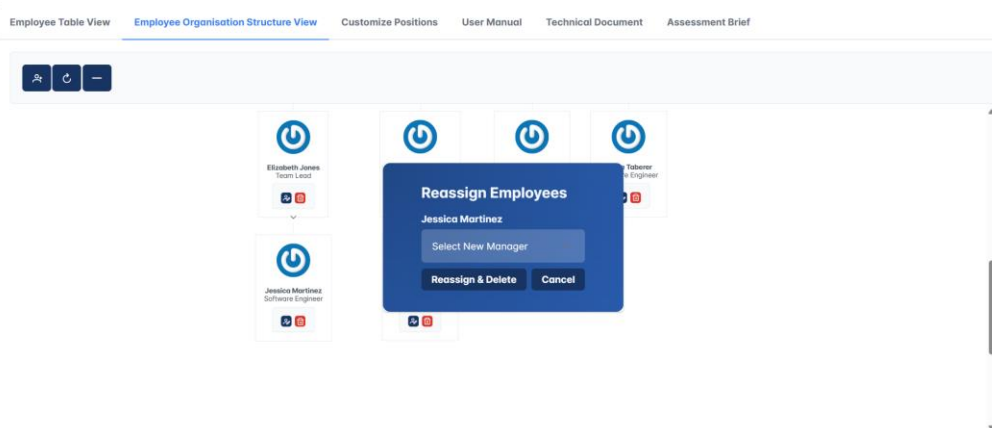


Figure 36: Employee Has Subordinates Reassign Modal Pops-Up

- Once all subordinates are reassigned, or if there are no subordinates, a final confirmation dialog will appear.

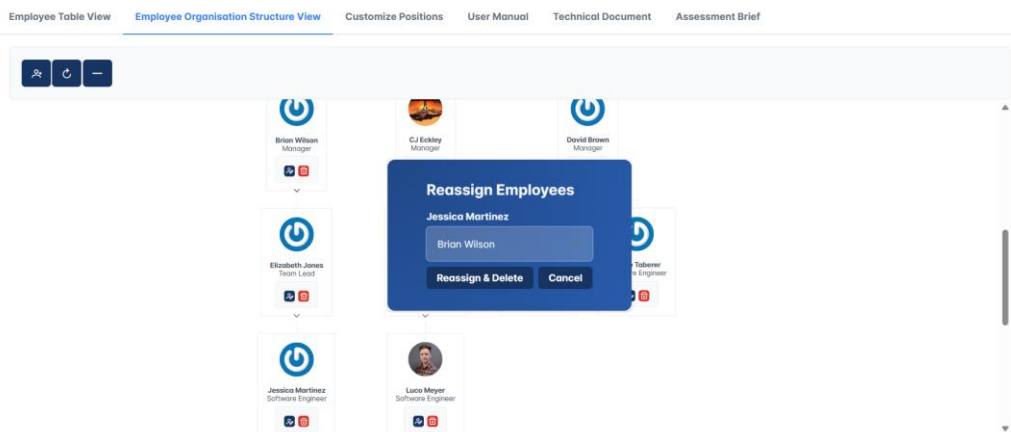


Figure 37: Select New Manager

- Click **Confirm** to proceed with the deletion of the employee record.

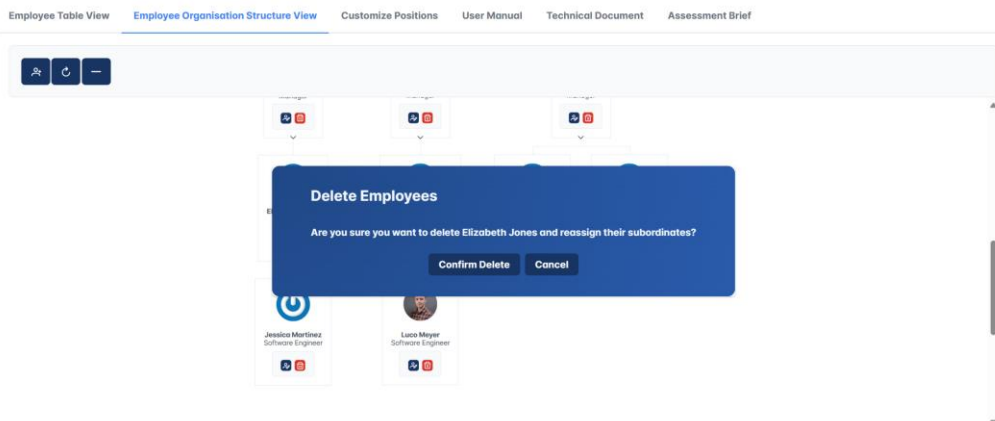


Figure 38: Confirm Deletion

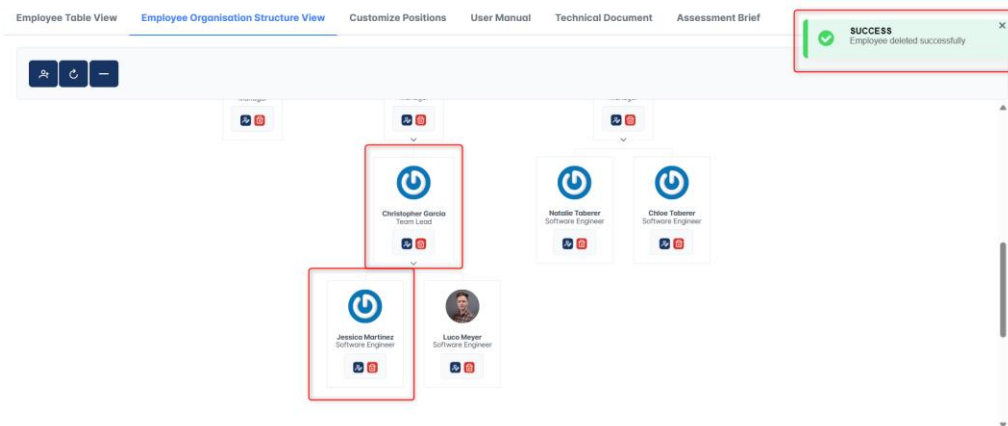


Figure 39: Reassignment Successful and Deletion Successful

Confirmation Dialogs and Validations

The Employee Management System is designed with user experience in mind, emphasizing data integrity and user confirmation for critical actions:

- **Confirmation Dialogs:** Any action that could result in data alteration or loss, such as deleting an employee record, is safeguarded with confirmation dialogs. These dialogs ensure that a user must explicitly confirm their intention to proceed with the action, minimizing the risk of unintentional changes or deletions.
- **Form Validations:** When adding or updating employee records, the system checks for completeness and uniqueness of data, especially email addresses. The system's validation rules ensure that no employee can be created with an email address that already exists in the database. Action buttons within forms, such as "Add" or "Update," are disabled until all mandatory fields are filled out correctly, and the entered data passes all validation checks. This ensures that records are kept consistent and accurate.

Special Features

Enhanced Search and Filter Capabilities

- **Search Functionality:** Users can quickly locate employees using the search feature, which allows for filtering through employee data using attributes such as names, email addresses, and more.
- **Filter Capability:** A sophisticated filtering system is in place, enabling users to sort the employee list based on various attributes, such as employee number, name, salary, position, and others. This feature is invaluable for users needing to organize and view employee data in a specific order or according to certain criteria.

Gravatar Integration

- **Profile Avatars:** The system integrates with Gravatar, a globally recognized avatar service. By creating a Gravatar account and uploading an avatar image associated with their email address, users can have their chosen avatars automatically displayed in the Employee Management System. This adds a personalized touch to the employee records.
- **Seamless Avatar Display:** When an employee's email is entered into the system, if it matches an email registered with Gravatar, their chosen avatar will automatically be retrieved and displayed, enhancing the visual appeal of the employee's data entry.

9. Conclusion

This manual provides a basic overview to get you started with the EMS. We recommend exploring each section to become fully acquainted with the system's capabilities.