

# LIVEWARE 1.0

## Introduction:

We are thrilled to introduce our project, Liveware 1.0, a transformative solution designed to elevate employee management within our organization. In today's dynamic business landscape, the effective management of our most valuable resource—our employees—holds the key to organizational success. Liveware 1.0 is poised to revolutionize the way we manage our workforce. It is a comprehensive, user-centric platform that combines essential features such as task management, leave management, advanced reporting and analytics, a mobile application, and an Employee Self-Service Portal. Moreover, it introduces a novel dimension to employee well-being—an Employee Forum, where personalized guidance on health and wellness can be accessed.

The significance of Liveware 1.0 is profound. It empowers administrators, managers, and employees alike to streamline operations, enhance productivity, and make data-informed decisions. It fosters a culture of engagement and accountability while also prioritizing the well-being of our team members. Incorporating these features into our organization will not only drive efficiency but also pave the way for a happier, healthier, and more productive workforce. We are excited to embark on this journey and invite you to join us in redefining employee management for a brighter and more prosperous future.

## Project Overview:

The primary goal of our project, Liveware 1.0, is to revolutionize and enhance the management of our organization's most valuable asset: our employees. We aim to create a comprehensive, user-centric platform that streamlines employee management, promotes engagement, and prioritizes well-being. The high-level project goals are as follows:

1. **Thorough User Management:** Liveware 1.0 has been meticulously designed to establish a comprehensive user management system for our web application. This system facilitates the efficient management of staff based on their roles and tasks.
2. **Admin Empowerment:** The project empowers Super admin and admins with the capability to create, modify, and remove user roles, conduct CRUD operations on user profiles, enforce role-based access control, and streamline the assignment and tracking of tasks.
3. **Data Security and User Authentication:** Liveware 1.0 sets a benchmark for robust user authentication and data security. It not only ensures data privacy but also upholds data privacy laws, safeguarding our organization and its employees.
4. **Efficient Employee Management:** Our project seeks to simplify and optimize employee management processes. We aim to make it easier to manage user profiles, tasks, leaves, and performance evaluations.
5. **Enhanced Productivity:** Liveware 1.0 is designed to boost productivity across the organization. Features such as task management and workflow automation will help teams collaborate efficiently and stay on track.
6. **Data-Driven Decision-Making:** Advanced reporting and analytics features will provide actionable insights into employee performance, engagement, and productivity. This will enable data-driven decision-making and strategy formulation.

7. **Employee Empowerment:** We aspire to empower employees through a self-service portal where they can manage their profiles, request time off, and access key information. The platform encourages accountability and active engagement.
8. **Employee Well-Being:** Liveware 1.0 recognizes the importance of employee well-being. The introduction of an Employee Forum allows personalized guidance on health and wellness, fostering a healthier and happier workforce.
9. **Mobile Accessibility:** A mobile application ensures that employees can stay connected and manage their tasks on the go, improving flexibility and convenience.

By achieving these goals, Liveware 1.0 aims to create a workplace environment where employees are not just managed but also actively engaged, motivated, and supported in their well-being. This project is our commitment to enhancing operational efficiency, employee satisfaction, and organizational success.

#### Business Need:

- **Efficiency and Productivity:** As our organization continues to grow, the need for a streamlined and efficient employee management system becomes increasingly critical. The current manual and disparate processes lead to inefficiencies, impacting overall productivity.
- **Data-Driven Decision-Making:** In an era of data, it is essential to make informed decisions. The lack of comprehensive reporting and analytics hampers our ability to harness data for strategic insights and improved performance.
- **Employee Engagement:** Engaged employees are more productive and committed to the organization's goals. We need a system that encourages employee engagement, accountability, and well-being.
- **Flexibility and Accessibility:** The modern workforce expects flexibility and accessibility. Our current systems are not equipped to provide the level of mobile accessibility and self-service that employees desire.

#### Project Scope:

##### In Scope:

- 1.**User Management:** Liveware 1.0 will provide a comprehensive user management system, including user profile management, task assignment, tracking, leave management, and performance evaluations.
- 2.**Reporting and Analytics:** Advanced reporting and analytics features will be implemented to offer actionable insights into employee performance and engagement.
- 3.**Employee Self-Service:** The project encompasses an Employee Self-Service Portal, allowing employees to manage their profiles, access information, and request time off.
- 4.**Employee Forum:** An Employee Forum is introduced to provide personalized guidance on health and wellness, prioritizing employee well-being.
- 5.**Mobile Application:** A mobile application will be developed to ensure accessibility on mobile devices, enhancing flexibility and convenience.

## Out of Scope:

1. **Integration:** While integration with HR and payroll systems is considered, the complete implementation of such integrations is not part of the current scope.
2. **Extensive Customization:** Highly detailed user customization options will not be part of the initial scope to maintain project focus.
3. **Full HR and Payroll System:** Liveware 1.0 will not replace a full-fledged HR and payroll system but aims to complement and enhance existing processes.
4. **Complex AI Integration:** While AI may be considered for future expansion, complex artificial intelligence integration is beyond the current scope.

By defining this scope, we ensure that Liveware 1.0 remains focused on its core objectives and delivers a robust employee management solution without unnecessary complexity or deviations from its primary goals. This delineation guarantees the project's successful and timely implementation.

## Business Case:

The business need for Liveware 1.0 is predicated on the critical importance of enhancing employee management within our organization. In today's dynamic business landscape, the effective management of our most valuable resource—our employees—stands as the key to organizational success.

## Benefits:

- **Efficient Workforce Management:** Liveware 1.0 empowers administrators and employees to manage tasks, profiles, and leave efficiently, reducing manual administrative work and boosting operational efficiency.
- **Data-Driven Insights:** Advanced reporting and analytics features will provide actionable insights into employee performance and engagement, enabling data-driven decision-making and strategy formulation.
- **Employee Engagement:** The project fosters a culture of engagement and accountability, encouraging employees to actively participate in their own well-being and productivity.
- **Mobile Accessibility:** A mobile application ensures that employees can stay connected and manage their tasks on the go, improving flexibility and convenience.
- **Health and Well-Being:** The introduction of an Employee Forum addresses the holistic well-being of employees, creating a happier, healthier, and more productive workforce.
- **Competitive Advantage:** By investing in employee management and well-being, we gain a competitive advantage in attracting and retaining top talent.

Incorporating Liveware 1.0 into our organization will lead to a happier, healthier, and more productive workforce. It will not only drive efficiency but also position us as a forward-looking organization that values its employees' well-being and is committed to achieving operational excellence. This project aligns with our strategic goals and strengthens our position in a competitive market.

## Project Features:

1. **User Management:** Liveware 1.0 establishes a thorough user management system, enabling administrators to efficiently create, edit, and delete user roles. It facilitates CRUD operations on user profiles, enforces role-based access control, and simplifies task assignment and tracking.

**2.Data Security and User Authentication:** The project guarantees robust user authentication and data security. It ensures data privacy and upholds data privacy laws, safeguarding our organization and its employees.

**3.Operational Effectiveness:** Liveware 1.0 aims to optimize work assignment, streamline personnel management, and enhance overall operational efficiency within the company.

**4.Task Management:** The platform offers a task management system that allows for efficient task assignment, tracking, and completion, promoting productivity and accountability.

**5.Leave Management:** Liveware 1.0 simplifies leave management, enabling employees to request and manage time off while providing administrators with a comprehensive overview of leave balances and requests.

**6.Advanced Reporting and Analytics:** The project incorporates advanced reporting and analytics features that provide actionable insights into employee performance, engagement, and productivity. This empowers data-driven decision-making and strategy formulation.

**7.Employee Self-Service Portal:** Liveware 1.0 offers an Employee Self-Service Portal where employees can actively manage their profiles, access important information, and request time off. This promotes accountability and engagement.

**8.Employee Forum:** The introduction of an Employee Forum provides a platform for personalized guidance on health and wellness, fostering a happier, healthier, and more productive workforce.

**9.Mobile Application:** A mobile application ensures accessibility on mobile devices, allowing employees to stay connected and manage tasks on the go, enhancing flexibility and convenience.

**10.User Customization:** The platform allows for user customization to adapt to specific organizational needs and preferences, offering a tailored user experience.

**11.Notification and Reminder System:** Liveware 1.0 includes a notification and reminder system to keep employees informed about important tasks, deadlines, and events.

**12.Accessibility and User-Friendliness:** The project prioritizes a user-centric approach, offering an intuitive and easy-to-navigate interface for all users.

## Technology Stack:

### Frontend Development:

- **ReactJS:** Liveware 1.0's user interface is built using ReactJS, providing a highly responsive and dynamic frontend experience for users.
- **Bootstrap:** Bootstrap is employed to ensure a visually appealing and mobile-responsive design, enhancing the overall user experience.
- **CSS:** Cascading Style Sheets (CSS) are employed for customized styling to create an attractive and user-friendly frontend design.

### Backend Development:

- **Spring Boot:** The backend is powered by Spring Boot, a framework that simplifies the development of Java-based applications, ensuring rapid development and scalability.
- **Spring Security:** Spring Security is utilized to enhance data security and user authentication, safeguarding sensitive information.
- **Liquibase:** Liquibase is employed to manage database changes and ensure consistent data structure, simplifying database management.

### Database Management:

- **MySQL:** MySQL, a robust relational database management system, is chosen to store and manage user profiles, roles, and related data.

### Mobile Application Development:

- **React Native:** To develop the mobile application, React Native is used, enabling cross-platform mobile app development with native performance.

### Version Control and Collaboration:

- **Git:** Git is employed for version control, allowing efficient tracking of code changes and collaboration among the development team.

### Web Services:

- **RESTful APIs:** The project utilizes RESTful APIs for seamless communication between the frontend and backend components.

## Database Management:

Database management within Liveware 1.0 is a crucial component that facilitates the storage, retrieval, and organization of data related to user profiles, roles, and various other aspects of the user management system. The database management system plays a pivotal role in ensuring data integrity, security, and efficient access. Here's a brief overview of database management for Liveware 1.0:

### Database System:

- **MySQL:** Liveware 1.0 utilizes MySQL, a robust and highly reliable relational database management system. MySQL is chosen for its ability to handle structured data efficiently, making it ideal for managing user profiles, roles, and related information.

### Database Design:

- The database design for Liveware 1.0 is carefully structured to ensure data consistency and integrity. It includes tables for user profiles, user roles, and other related entities.
- The schema design ensures that data is organized logically, making it easy to query and manage.

### Data Security:

- Data security is a paramount concern within Liveware 1.0. Measures are implemented to protect sensitive data, including user credentials and personal information.
- Access control is enforced to restrict unauthorized access to the database.

### Data Migration and Version Control:

- **Liquibase:** Liquibase is used for managing database changes and ensuring that the database schema evolves with the application. It simplifies the process of database migration as the project progresses.

### Scalability:

- The database structure is designed to accommodate the potential growth of user data and related information as the organization expands.

### Optimized Queries:

- SQL queries are optimized to ensure efficient data retrieval and processing, minimizing response times and enhancing the overall performance of the application.

## User Management:

User Type	Description	Roles and Responsibilities
Application Users	Regular employees using Liveware 1.0 for personal tasks and accessing their own information.	Use the application for personal tasks.
		Access information relevant to their work.
Admin Users	Employees with administrative roles responsible for user management and task assignments.	Create and manage user profiles.
		Assign tasks to employees.
		Enforce role-based access control.
Super Admin Users	Users with the highest level of access and control, responsible for system-wide user management.	Create, edit, and delete user roles.
		Perform CRUD operations on user profiles.
		Enforce role-based access control system-wide.
		Access all features within the application.

## Additional Features:

### ❖ Task Management System:

- Implement a comprehensive task management system that allows admins to assign tasks, set due dates, and track task progress. Employees can view and update their assigned tasks, improving workflow management.

### ❖ Leave Management Module:

- Create a leave management module that enables employees to request time off, provides an approval workflow for admins, and maintains leave records. This feature streamlines leave management and ensures accurate record-keeping.

### ❖ Advanced Reporting and Analytics:

- Develop advanced reporting and analytics capabilities that offer insights into employee performance, engagement, and productivity. Customizable dashboards and data visualization tools help in data-driven decision-making.

### ❖ Mobile Application:

- Build a dedicated mobile application for Liveware 1.0, allowing employees to access the platform on the go. The mobile app ensures flexibility and convenience for users, increasing accessibility.

### ❖ Employee Self-Service Portal:

- Enhance the Employee Self-Service Portal with additional features, such as the ability to update personal information, view pay stubs, and request changes to employment details. This empowers employees to manage their profiles effectively.

#### ❖ **Employee Forum for Health Guidance:**

- Expand the Employee Forum to include a section for personalized health and wellness guidance. Provide resources, tips, and expert advice to promote employee well-being.

## Benefits:

The Liveware 1.0 project offers the following key benefits:

- Enhanced operational efficiency through streamlined user management, task assignment, and access control.
- Improved data security and user authentication, ensuring data privacy compliance.
- Data-driven decision-making with advanced reporting and analytics.
- Increased employee productivity and engagement.
- Empowerment of employees through a self-service portal.
- Prioritization of employee well-being through a dedicated health and wellness forum.
- Mobile accessibility for on-the-go management.
- Comprehensive employee management, fostering a happier, healthier, and more productive workforce.

## Security and Data Privacy:

Security and data privacy are paramount concerns within Liveware 1.0, and several measures are in place to safeguard sensitive information and ensure compliance with data privacy regulations:

- **Robust User Authentication:** Liveware 1.0 enforces strong user authentication methods, including secure password policies and one-time password (OTP) generation for user logins.
- **Data Encryption:** Data transmission and storage are secured through encryption mechanisms, safeguarding data from unauthorized access.
- **Role-Based Access Control:** Role-based access control ensures that users can only access data and features relevant to their roles, limiting exposure to sensitive information.
- **Compliance with Data Privacy Laws:** Liveware 1.0 is designed to uphold data privacy laws, with features that enable users to manage their personal data and permissions in line with regulatory requirements.
- **Audit and Monitoring:** The system includes comprehensive logging and monitoring features, allowing administrators to track user activity and security events.
- **Regular Security Updates:** Liveware 1.0 is committed to applying regular security updates and patches to protect against emerging threats.

Security and data privacy are integral to the Liveware 1.0 project, ensuring that sensitive information remains confidential and that users can trust the system to protect their data. The platform goes the extra mile to meet the highest security standards while maintaining compliance with data privacy laws.

## Current Development Status:

As of 8<sup>th</sup> Nov 2023 [Current Date], Liveware 1.0 has made significant progress in its development journey. The backend and frontend components are under active development, and core features related to user management, role-based access control, and basic task assignment are nearing completion. The database has been set up, and data models have been defined to support these features. The mobile application development has commenced, and the API is being prepared to ensure seamless integration.




## Frontend development

### Login

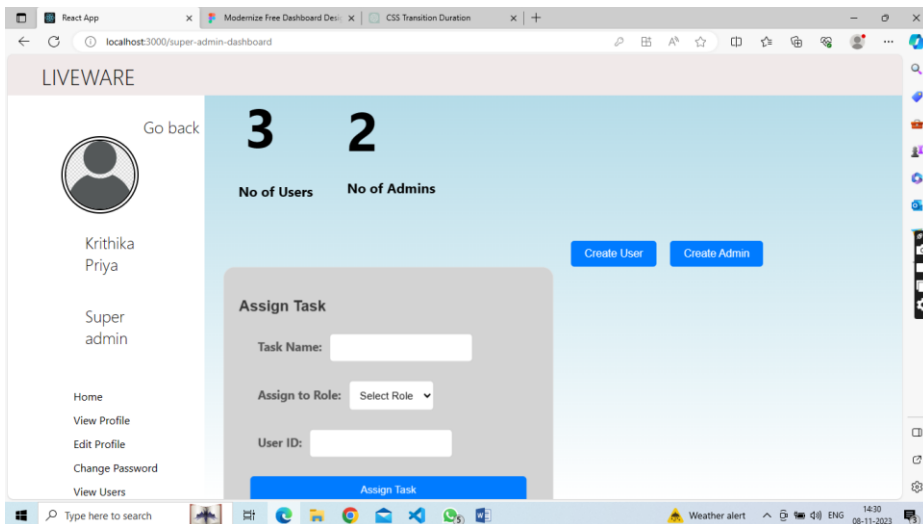
Username

Password

Login

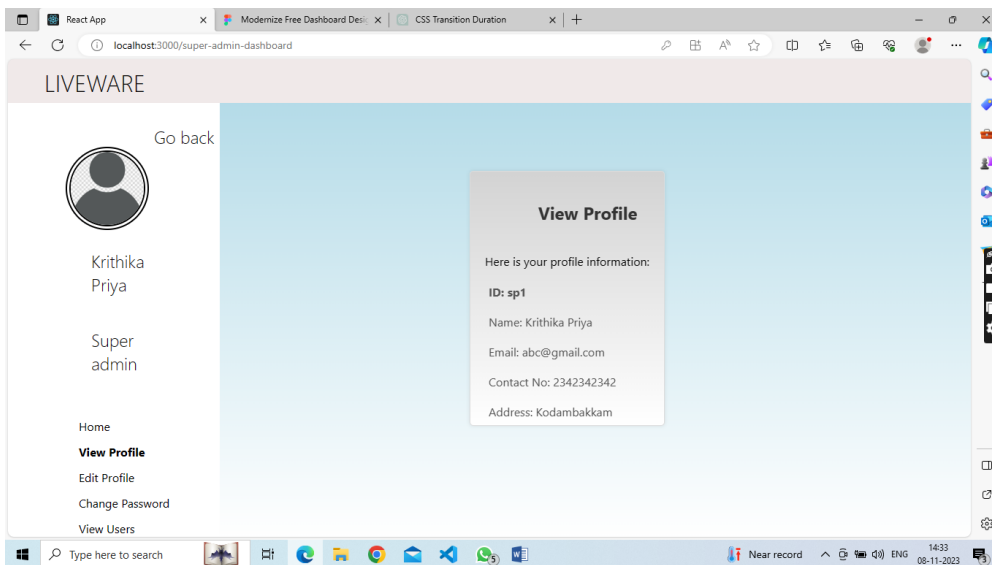


### Super admin



The screenshot shows a web browser window displaying a dashboard for a 'Super admin'. The browser tabs include 'React App', 'Modernize Free Dashboard Des...', and 'CSS Transition Duration'. The address bar shows 'localhost:3000/super-admin-dashboard'. The dashboard has a light blue background with a white sidebar on the left. The sidebar contains a 'Go back' link, a user profile for 'Krithika Priya' (Super admin), and a list of links: Home, View Profile, Edit Profile, Change Password, and View Users. The main content area has a header with 'LIVEWARE' and a 'Go back' link. Below the header, there are two large numbers: '3' for 'No of Users' and '2' for 'No of Admins'. To the right of these numbers are two blue buttons: 'Create User' and 'Create Admin'. In the center, there is a grey box titled 'Assign Task' with fields for 'Task Name', 'Assign to Role' (a dropdown menu), and 'User ID', and an 'Assign Task' button. The Windows taskbar at the bottom shows the search bar, taskbar icons, and system tray with a weather alert and date/time (14:30, 08-11-2023).

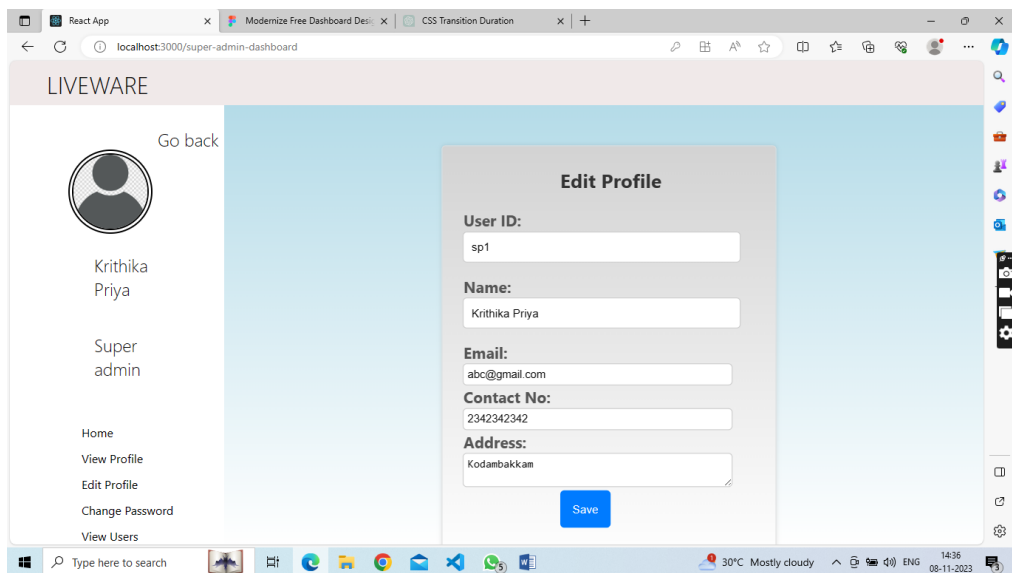
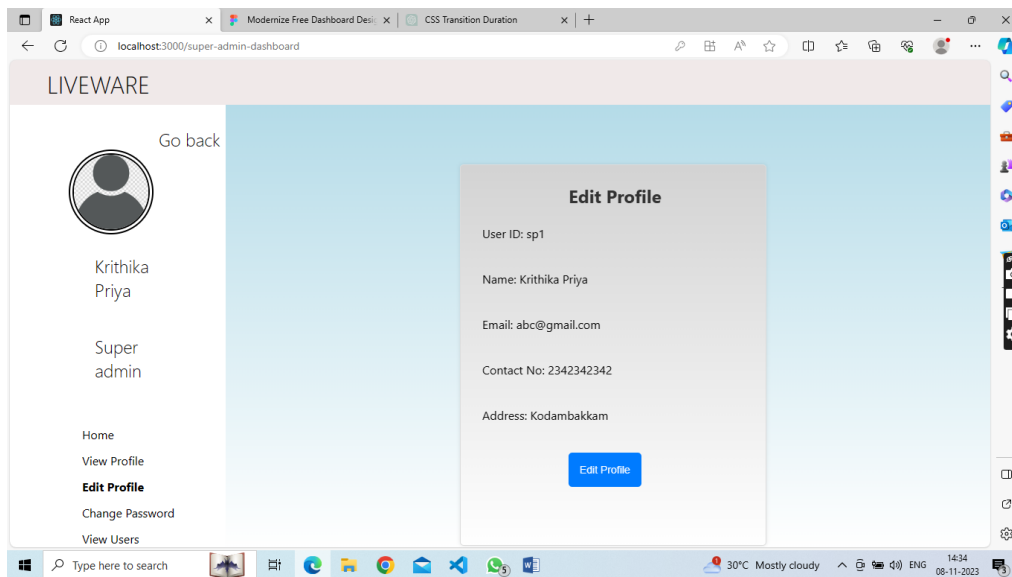
### Super admin view profile



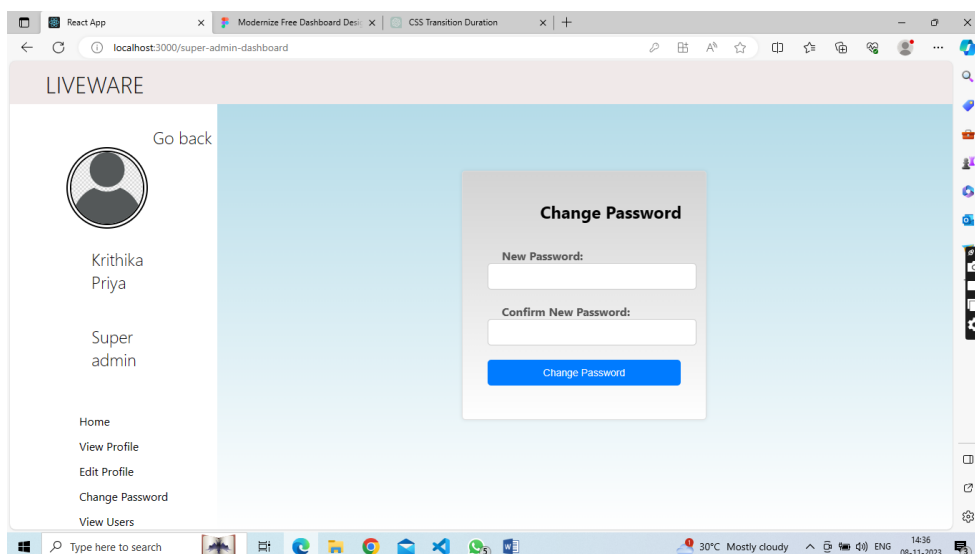
The screenshot shows the 'View Profile' page of the Super Admin dashboard. The browser window is the same as the previous one. The sidebar is identical. The main content area has a header with 'LIVEWARE' and a 'Go back' link. Below the header, there is a grey box titled 'View Profile' with the text 'Here is your profile information:'. Below this text, the profile information is listed: 'ID: sp1', 'Name: Krithika Priya', 'Email: abc@gmail.com', 'Contact No: 2342342342', and 'Address: Kodambakkam'. The Windows taskbar at the bottom shows the search bar, taskbar icons, and system tray with a weather alert and date/time (14:33, 08-11-2023).



## Super admin edit profile



## Superadmin change password



## Superadmin user view

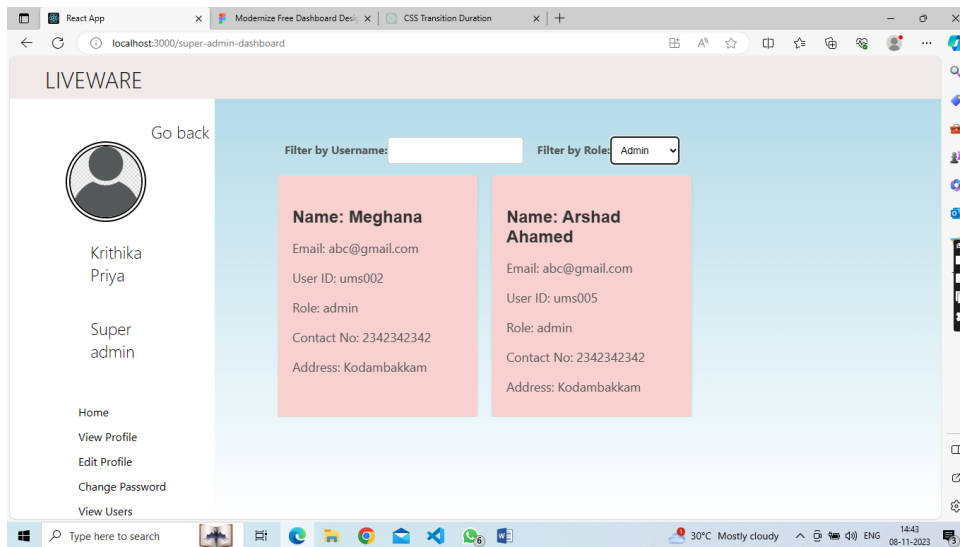
The screenshot shows a web application interface for a superadmin user. The left sidebar contains a user profile for Krithika Priya (Super admin) and navigation links: Home, View Profile, Edit Profile, Change Password, and View Users. The main content area displays a list of users with filters for Username and Role. Three user cards are visible:

Name	Email	User ID	Role	Contact No	Address
Isha	isha@gmail.com	1	admin	1234567890	Chennai
John	john@gmail.com	2	user	9876543210	New York
Alice	alice@gmail.com	3	user	5678901234	London

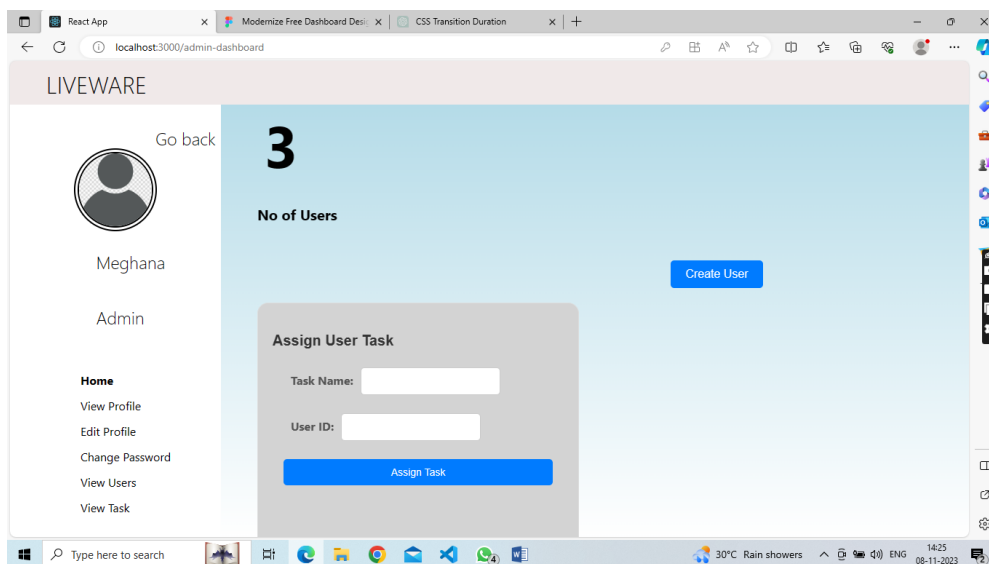
The screenshot shows the same web application interface, but with a different set of users displayed. The sidebar and filters remain the same. Three user cards are visible:

Name	Email	User ID	Role	Contact No	Address
sandhya	abc@gmail.com	ums001	user	2342342342	Kodambakkam
Meghana	abc@gmail.com	ums002	admin	2342342342	Kodambakkam
reeta	abc@gmail.com	ums003	user	2342342342	Kodambakkam

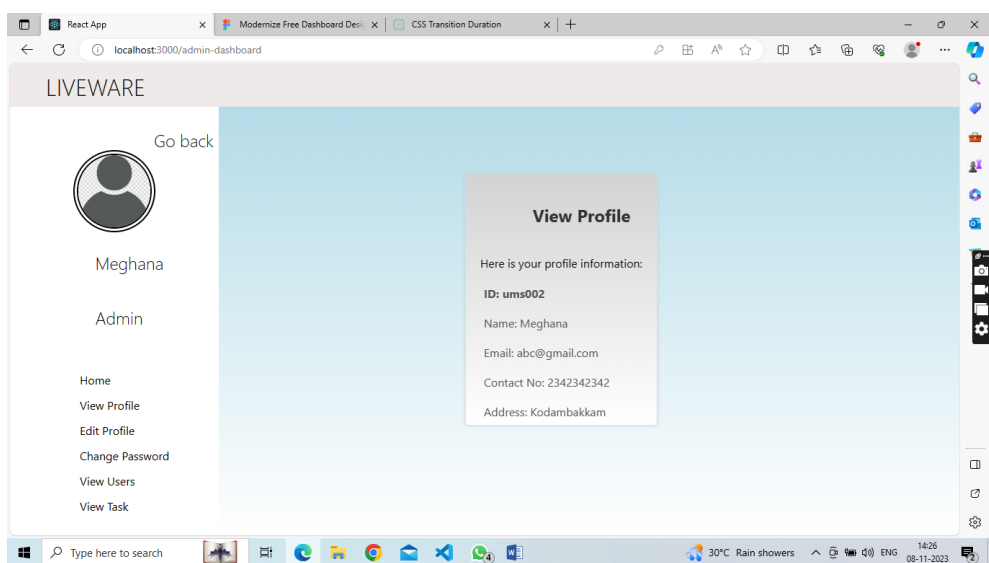
This screenshot is identical to the previous one, showing the same three users: sandhya, Meghana, and reeta. The interface elements, including the sidebar, filters, and user cards, are consistent with the previous screenshot.



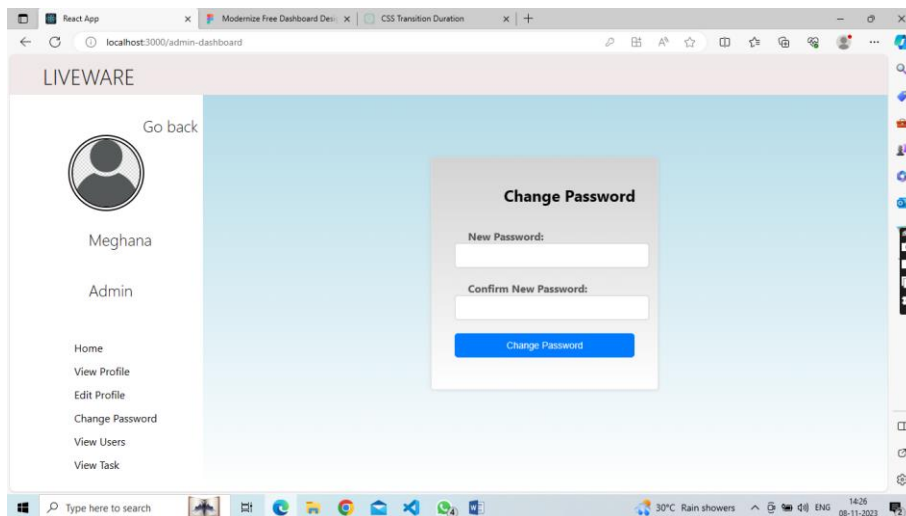
## Admin



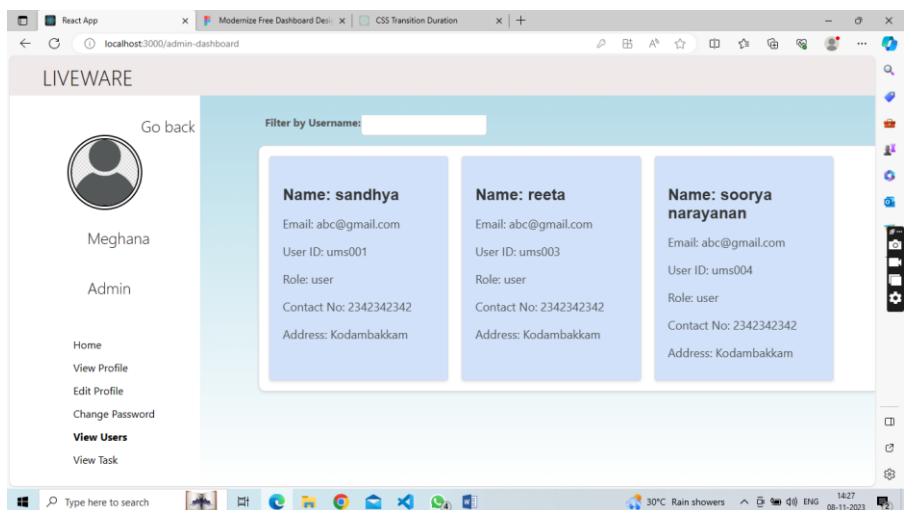
## Admin profile



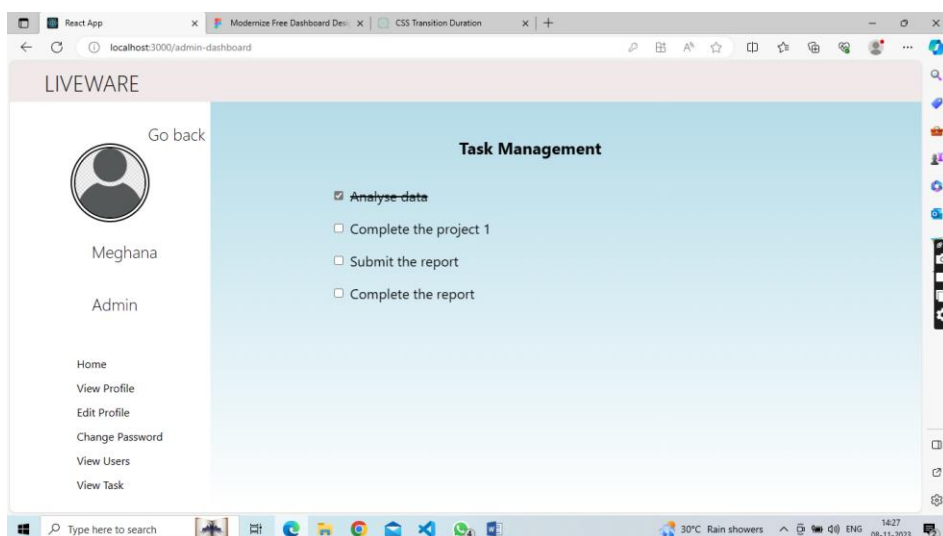
## Admin change password



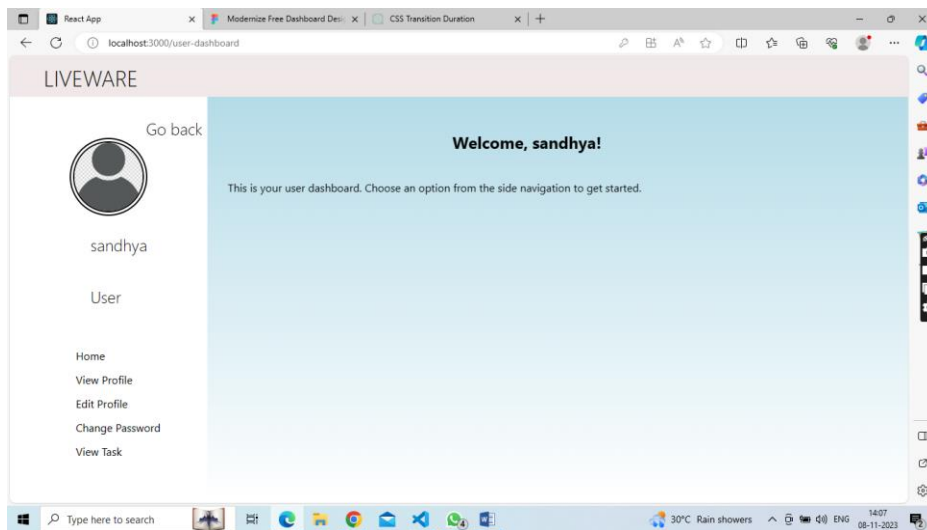
## Admin view users



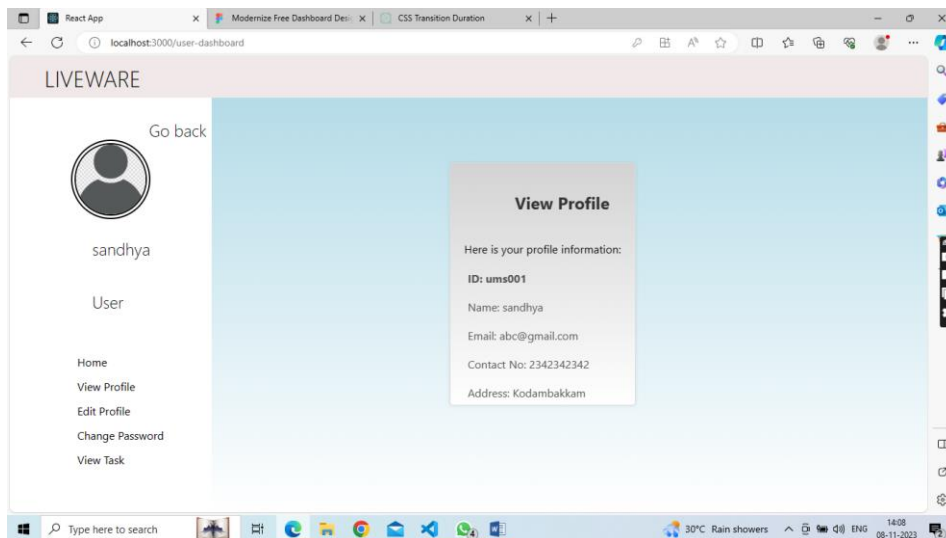
## Admin task management



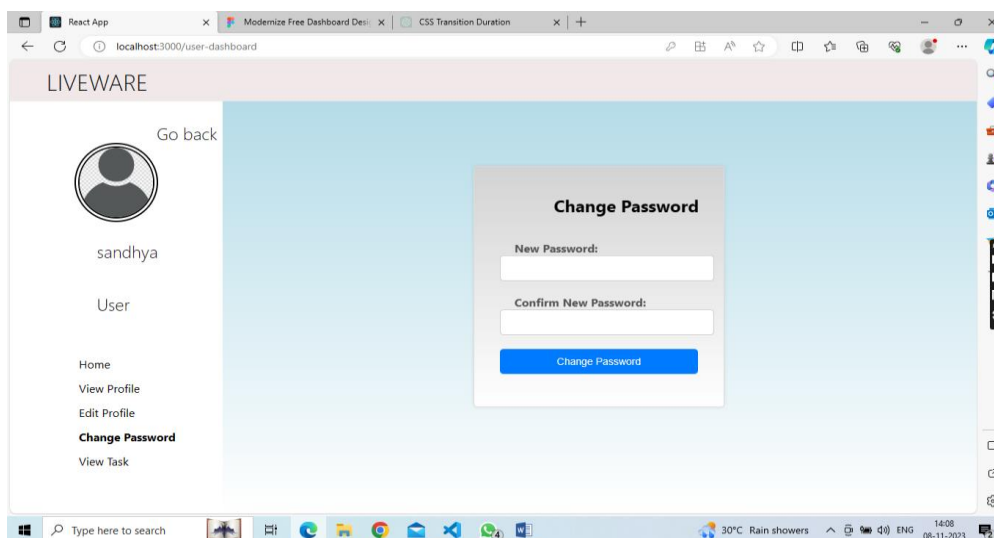
## User



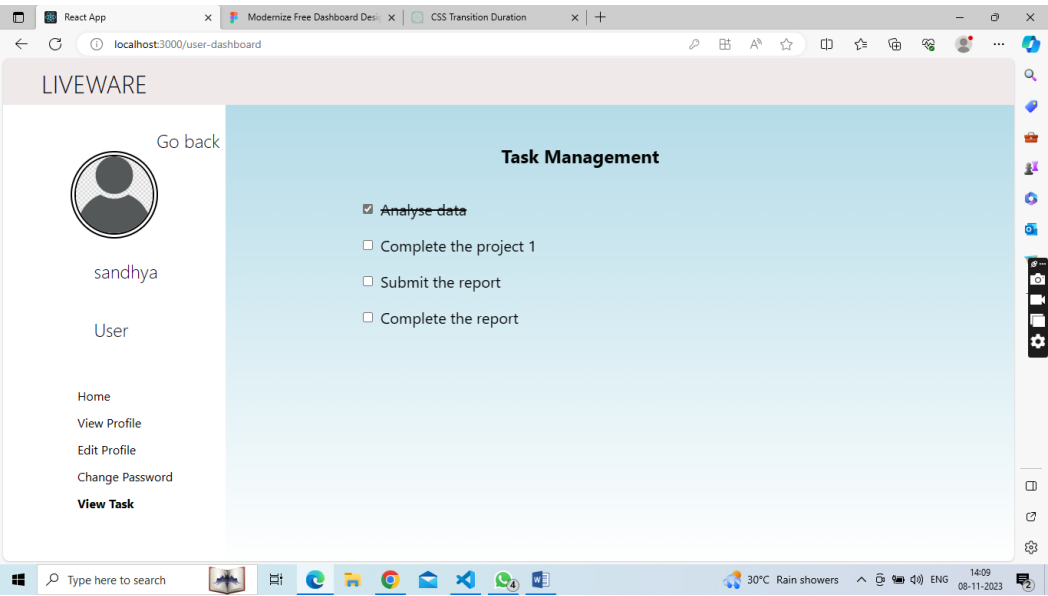
## User profile



## User change password



User task



Database management  
Userprofiles:

	UserID Primary Ke	create_time Create Time/datetime	UserLoginID varchar(50)	UserPassword varchar(255)	FirstNam varchar(50)	LastNam varchar(50)	UserType varchar(50)	UserStatus tinyint(1)	*email varchar(255)	phone_no varchar(255)
1	10001	2023-11-01 08:00:00	user1	password1	John	Doe	SuperAdmin	1	john.doe@example.com	1234567890
2	10002	2023-11-02 09:15:00	user2	password2	Alice	Johnson	Admin	1	alice.j@example.com	9876543210
3	10003	2023-11-03 10:30:00	user3	password3	Bob	Smith	Employee	1	bob.smith@example.com	5551234567
4	10004	2023-11-04 11:45:00	user4	password4	Eva	Williams	Employee	1	eva.w@example.com	7779991234
5	10005	2023-11-05 12:00:00	user5	password5	Sophia	Brown	Employee	1	sophia.b@example.com	1239876543

Userroles

The screenshot shows a database table named 'userroles'. The table has two columns: 'RoleID' (Primary Key) and 'RoleName' (varchar(50)). The data is as follows:
 

RoleID	RoleName
1	Admin
2	Employee
5	HR
4	Software Developer
3	Super Admin

Useruserrolemapping

The screenshot shows a database table named 'useruserrolemapping'. The table has three columns: 'Mapping' (Primary Key), 'UserID' (int), and 'RoleID' (int). The data is as follows:
 

Mapping	UserID	RoleID
1	10001	3
2	10002	1
3	10003	2
4	10004	2
5	10005	2

Tasks

TaskID int	* TaskName varchar(255)	TaskDescription text	TaskAssigneeID int	TaskCreatorID int	* TaskStatus varchar(50)	* TaskDueDate date
1	Task 1	Complete task 1 by end of	10003	10001	In Progress	2023-11-15
2	Task 2	Submit report for Q4	10003	10002	Not Started	2023-11-30
3	Task 3	Review project proposal	10004	10002	Completed	2023-11-10
4	Task 4	Prepare presentation for m	10005	10002	In Progress	2023-11-20
5	Task 5	Update user documentation	10004	10001	Not Started	2023-11-25

## OTP Generator

OTP varchar
1 863404

## Project Timeline (Updated):

Here's an updated timeline reflecting the current status of the Liveware 1.0 project:

Phase	Status	Expected Completion
Project Initiation	Completed	1 <sup>st</sup> month of project
System Design	In Progress	1 <sup>st</sup> or 2 <sup>nd</sup> month of project
Backend Development	In Progress	1 <sup>st</sup> or 2 <sup>nd</sup> month of project
Frontend Development	In Progress	1 <sup>st</sup> or 2 <sup>nd</sup> month of project
Testing and Quality Assurance	Upcoming	2 <sup>nd</sup> or 3 <sup>rd</sup> month of project
Mobile Application Development	In Progress	2 <sup>nd</sup> or 3 <sup>rd</sup> month of project
Advanced Reporting and Analytics	Upcoming	2 <sup>nd</sup> or 3 <sup>rd</sup> month of project
Employee Self-Service Portal	In Progress	1 <sup>st</sup> or 2 <sup>nd</sup> month of project
Employee Forum Expansion	Upcoming	2 <sup>nd</sup> or 3 <sup>rd</sup> month of project
Data Migration and Final Testing	Upcoming	2 <sup>nd</sup> or 3 <sup>rd</sup> month of project
Deployment and Training	Upcoming	2 <sup>nd</sup> or 3 <sup>rd</sup> month of project
Go-Live	Upcoming	3 <sup>rd</sup> month

## Expected Outcomes:

- ✓ A comprehensive user management system.
- ✓ Enhanced user authentication and data security.
- ✓ Advanced reporting and analytics for data-driven decision-making.
- ✓ Improved employee productivity and engagement.
- ✓ Mobile accessibility for on-the-go management.
- ✓ Empowerment of employees through a self-service portal.
- ✓ A dedicated Employee Forum for health and wellness guidance.
- ✓ Integration with existing systems to streamline processes.

## Conclusion:

Liveware 1.0 is well on its way to becoming a transformative solution for employee management within our organization. With a strong focus on user management, security, and data privacy, the



project is set to revolutionize the way we manage our workforce. It aims to boost operational efficiency, enhance employee well-being, and create a more productive and engaged workforce.

### Request for Feedback:

We welcome your feedback and insights as we continue to develop Liveware 1.0. Your valuable input will help us fine-tune the project and ensure that it meets the organization's needs and expectations. Please feel free to share your thoughts, suggestions, or concerns, as your feedback is instrumental in our journey to redefine employee management for a brighter and more prosperous future.