ADITYA ENGINEEERING COLLEGE

TEAM NO:51

PROJECT NAME:AC WORK

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AC WORK

PROBLEM STATEMENT:

The efficient management and maintenance of air conditioners, water coolers, and refrigerators within the organization is crucial for ensuring their optimal performance and longevity. The current inventory consists of air conditioners, water coolers, and an unspecified number of refrigerators. Each piece of equipment requires regular monitoring, periodical servicing, and timely maintenance to prevent breakdowns and ensure operational efficiency.

Key Challenges:

Inventory Management: Maintaining an accurate and up-to-date inventory of all air conditioners, water coolers, and refrigerators, including details such as make, capacity, and status.

Periodical Services: Ensuring each unit undergoes regular servicing as per its maintenance schedule. This includes tracking the last serviced date and scheduling the next service date.

Maintenance Tasks: Addressing various types of maintenance tasks promptly, including repair work, gas filling, and part replacements. Monitoring the status of these tasks (pending or completed) and recording any remarks for pending work.

Data Management: Keeping detailed records of all maintenance activities, including the type of work performed, description of issues, and current work status. This data is crucial for planning and resource allocation.

Operational Efficiency: Ensuring that all equipment is functioning correctly and efficiently to avoid disruptions in service and reduce energy consumption.

PROJECT DESCRIPTION:

Project Title: AC WORK

This project aims to develop and implement an efficient management and maintenance system for the organization's air conditioners, water coolers, and refrigerators. With an inventory comprising air conditioners, water coolers, and an unspecified number of refrigerators, ensuring their optimal performance and longevity is critical. The project will address the challenges of inventory management, periodical services, maintenance tasks, and data management to enhance operational efficiency and prevent equipment downtime.

Created a database to record details of all air conditioners, water coolers, and refrigerators.

Include fields for make, capacity, status, and remarks.

Periodical Service Management:

Setting up a scheduling system to track the last serviced date and schedule the next service date for each unit.

Send reminders for upcoming services to ensure timely maintenance.

Maintenance Task Management:

Developing a module to log maintenance requests, including repair work, gas filling, and part replacements.

Track the status of each task (pending or completed) and include fields for detailed descriptions and remarks.

Data Recording and Analysis:

Ensure all maintenance activities are recorded with detailed descriptions.

Generate reports on maintenance histories and upcoming service schedules.

Training:

Train staff on the new system to ensure smooth implementation.

Provide ongoing support and updates to maintain system efficiency.

Expected Outcomes:

A comprehensive and up-to-date inventory of all air conditioners, water coolers, and refrigerators.

Efficient tracking and scheduling of periodical services to ensure timely maintenance.

Streamlined management of maintenance tasks with clear tracking of work status.

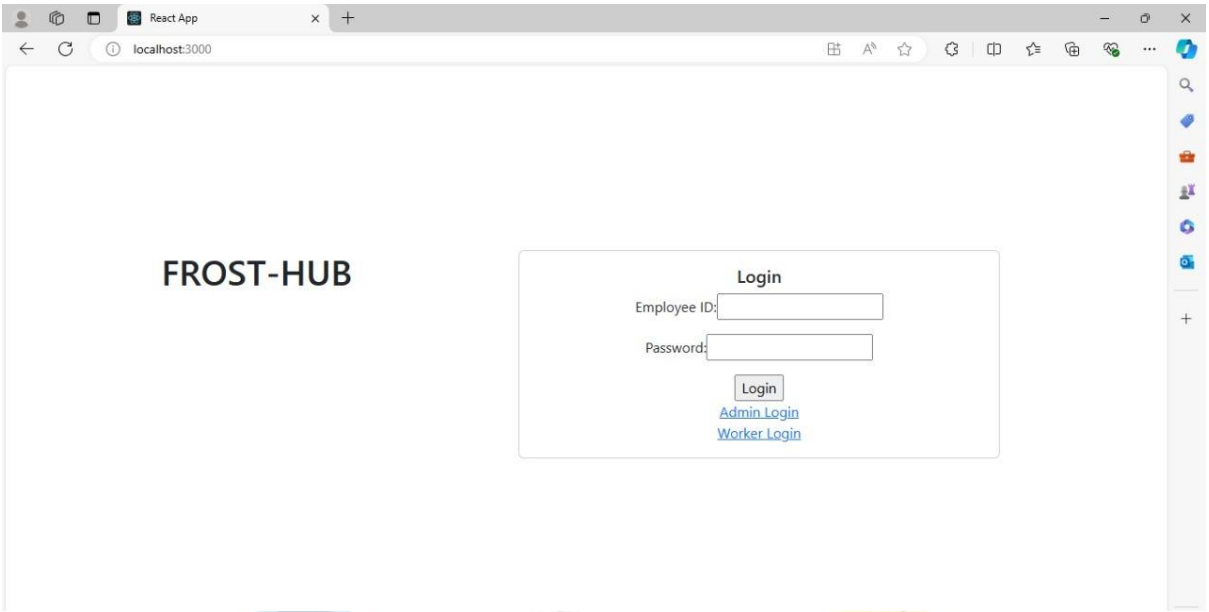
Detailed records of all maintenance activities for easy reference and analysis.

Improved operational efficiency and reduced downtime of all equipment.

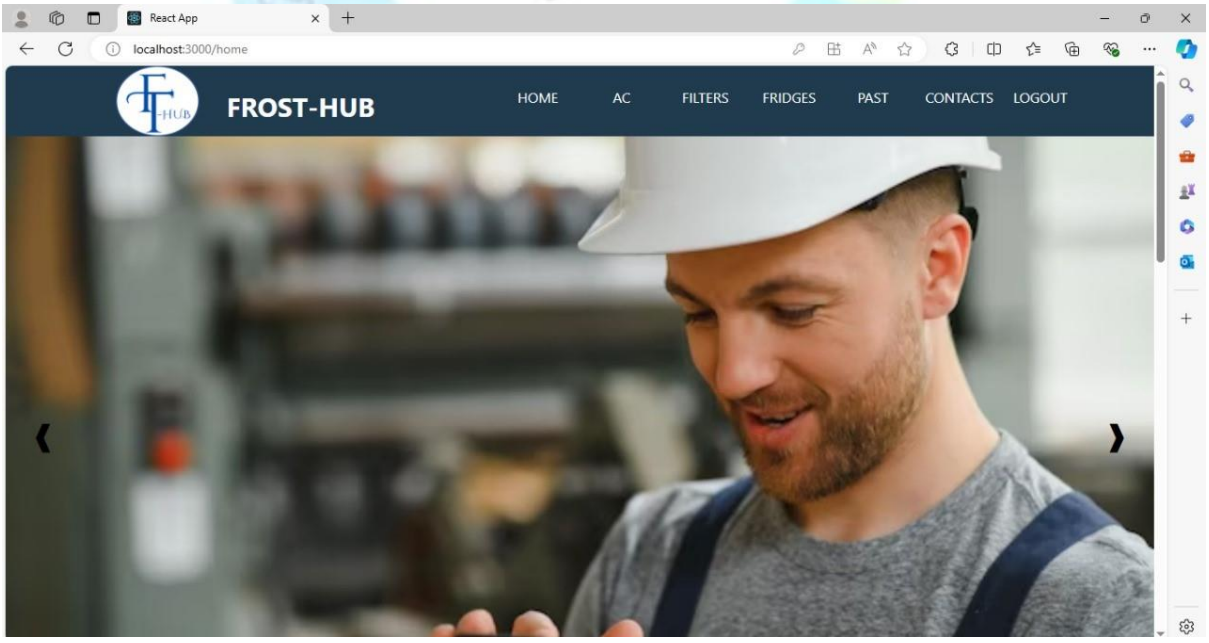
The organization has identified several key challenges .These challenges include maintaining an accurate inventory, ensuring regular and timely periodical services, efficiently managing various maintenance tasks, and keeping comprehensive records for future reference and analysis. These inefficiencies can lead to increased downtime, higher energy consumption, and unexpected breakdowns, all of which can disrupt operations and increase costs.

PROJECT IMPLEMENTATION:

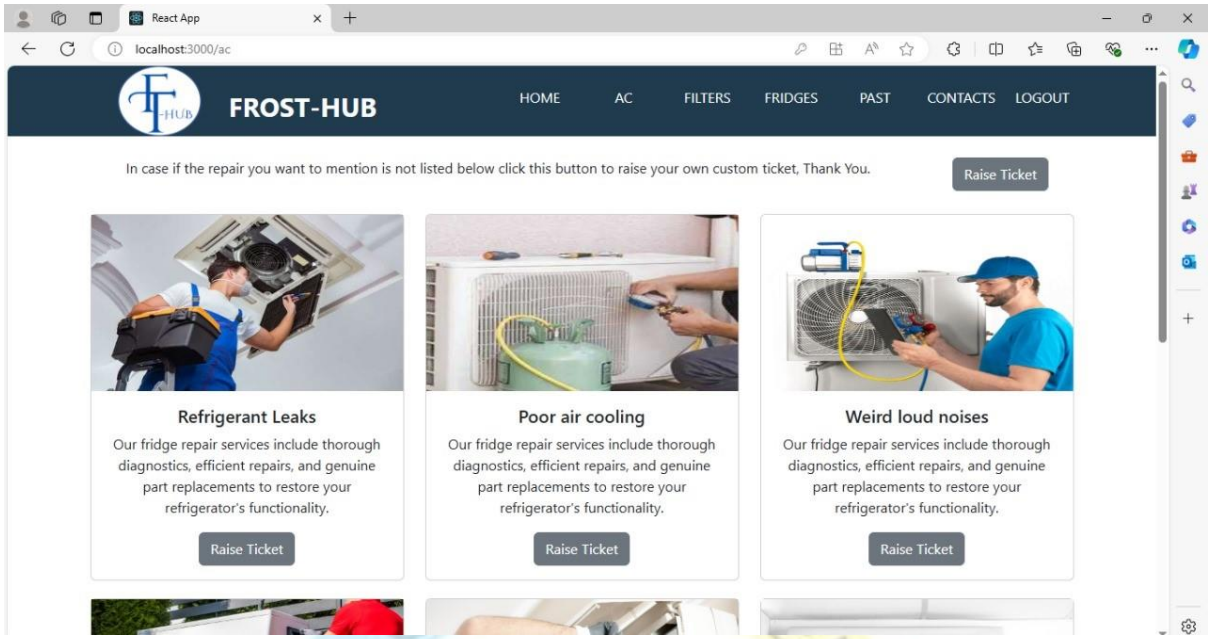
Login form for Users, Admin as well as Worker. Admin and workers can login and navigate to their respective portals.



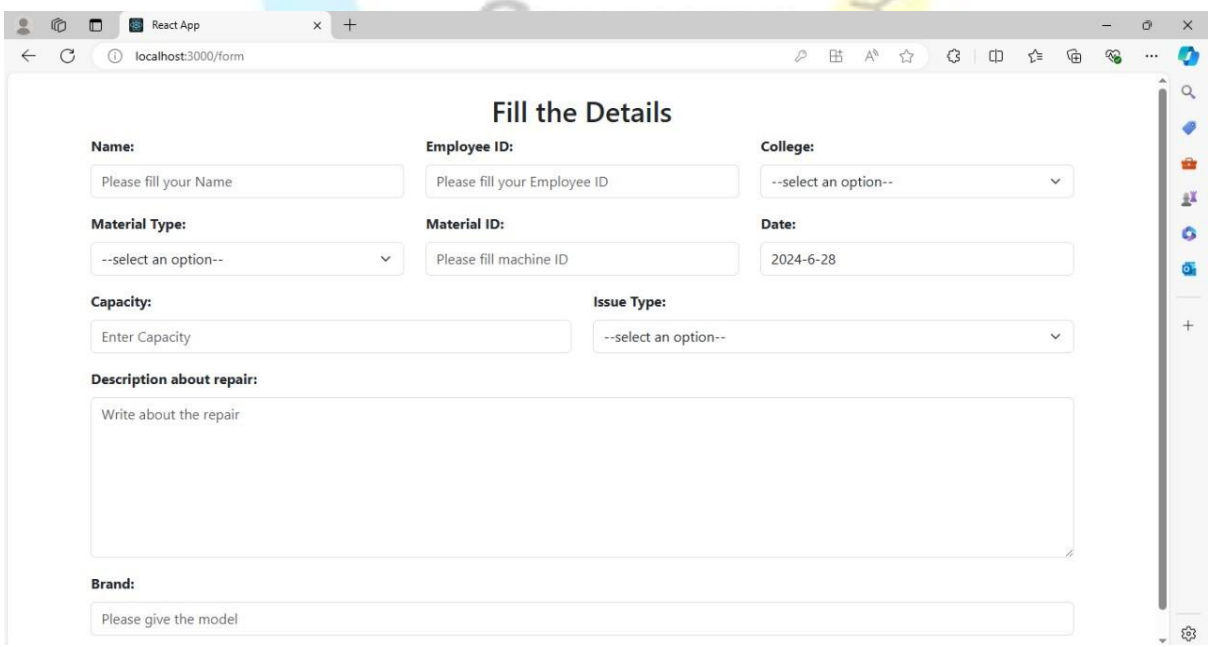
After login User home page gets displayed as follows:



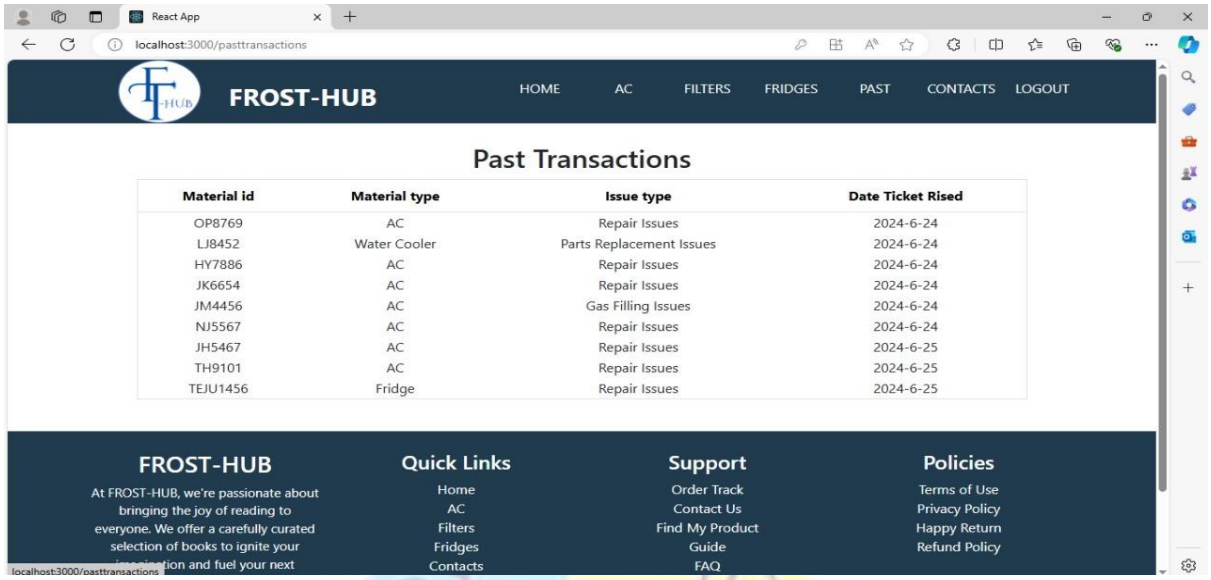
Here we can navigate to AC's, FILTER's, FRIDGES's and can know about the services and repairs that are maintained.



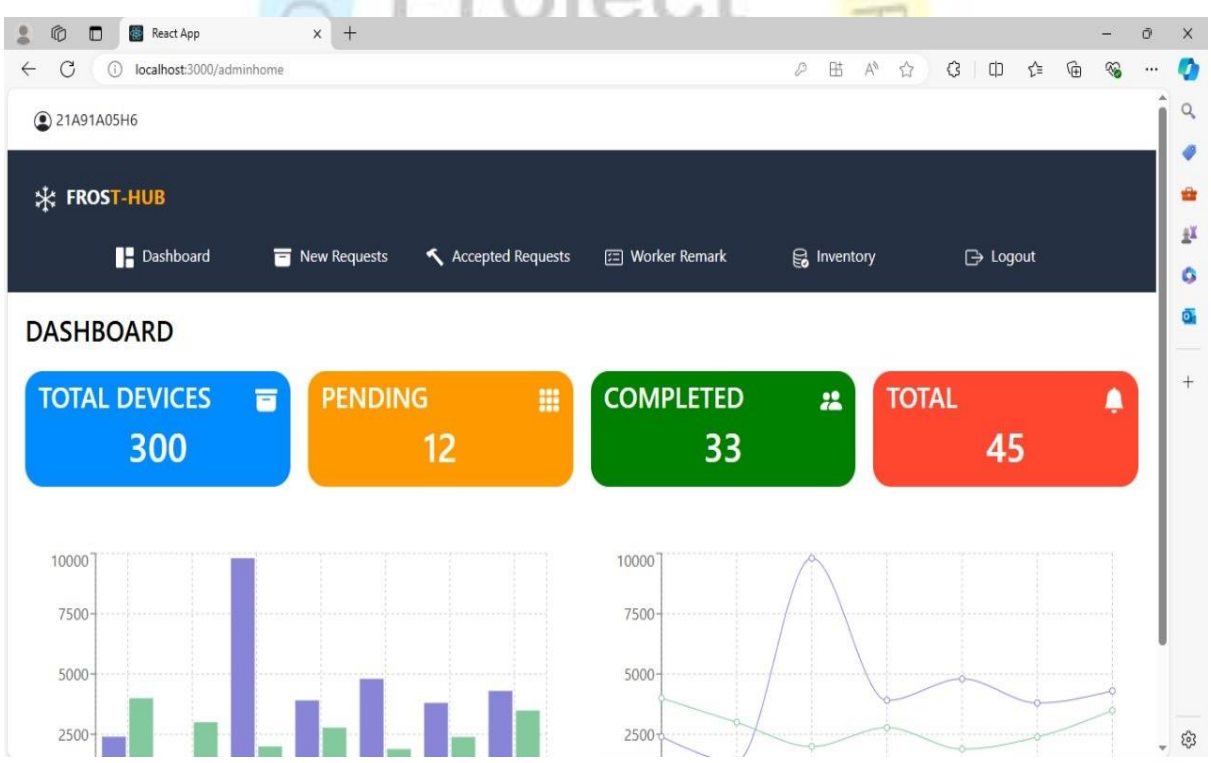
This is the sample page in which Fridges and Filters pages also look similar to this page. Upon clicking raise ticket it navigates to a form specified below.



This Form has preliminary details like Name, Employee ID, Material Type, Material ID etc..which are used in further processing of the tickets that a particular user has raised. The employee ID helps and connects the past transactions performed by the user from inventory.

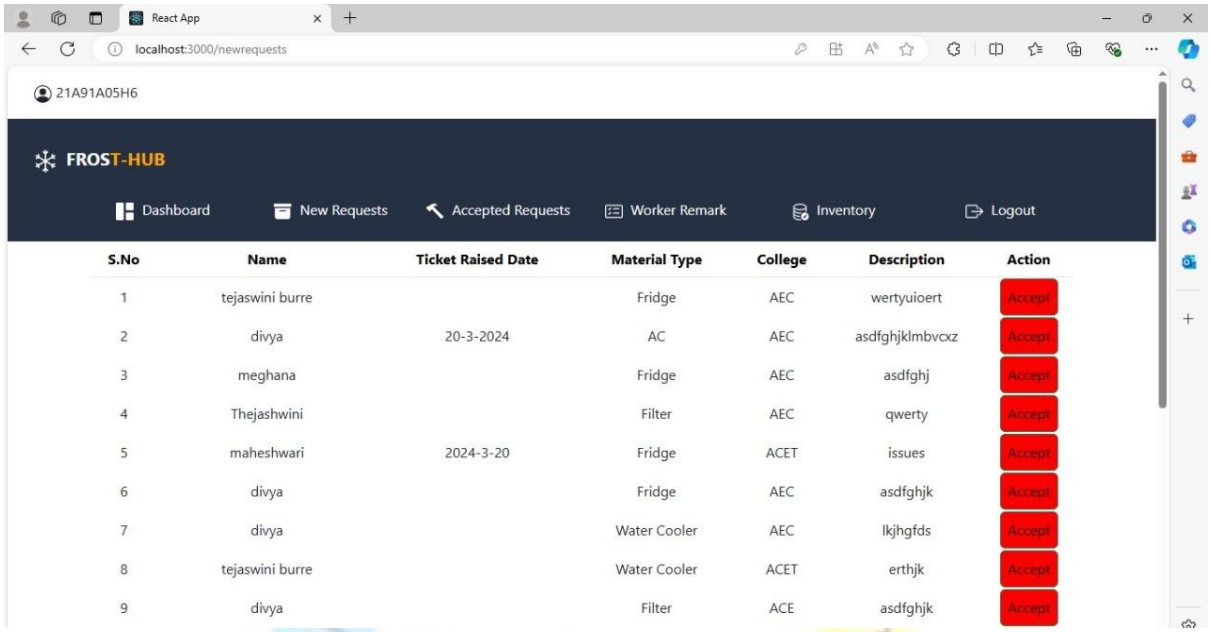


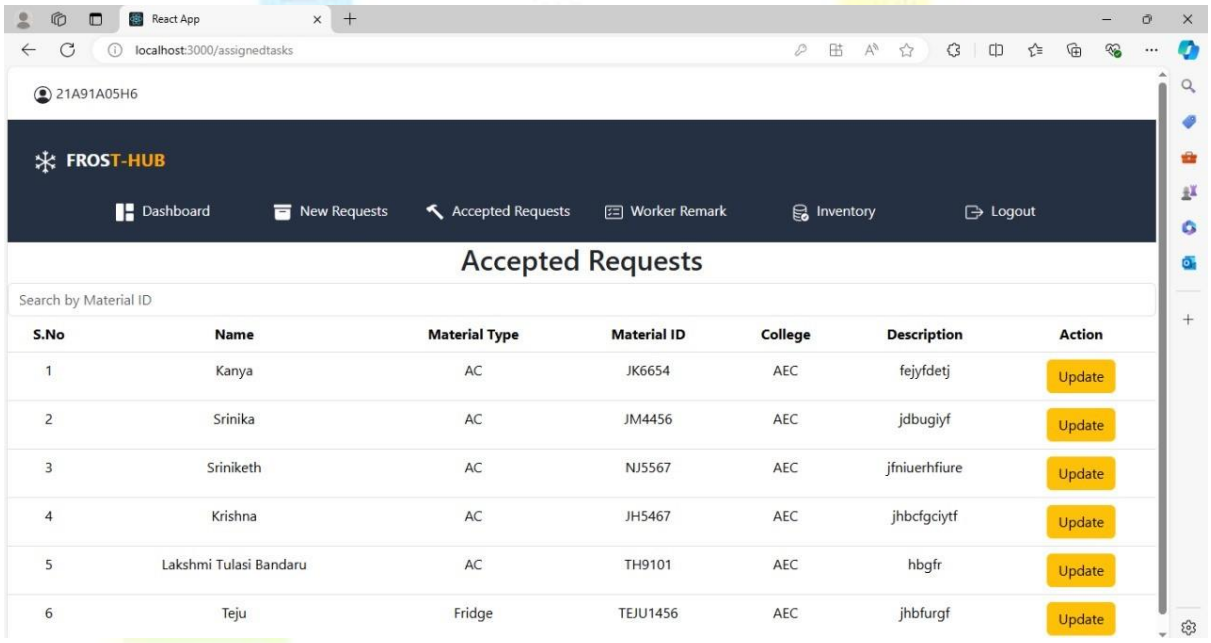
Here they can view the past tickets and requests raised according to the date. They can also know what maintainance has been done on the particular electronic appliance.



After the admin Login this is the dashboard that gets displayed. It primarily describes total devices, No.of pending requests, Completed requests. It also represents the graphical analysis on the requests from past months.

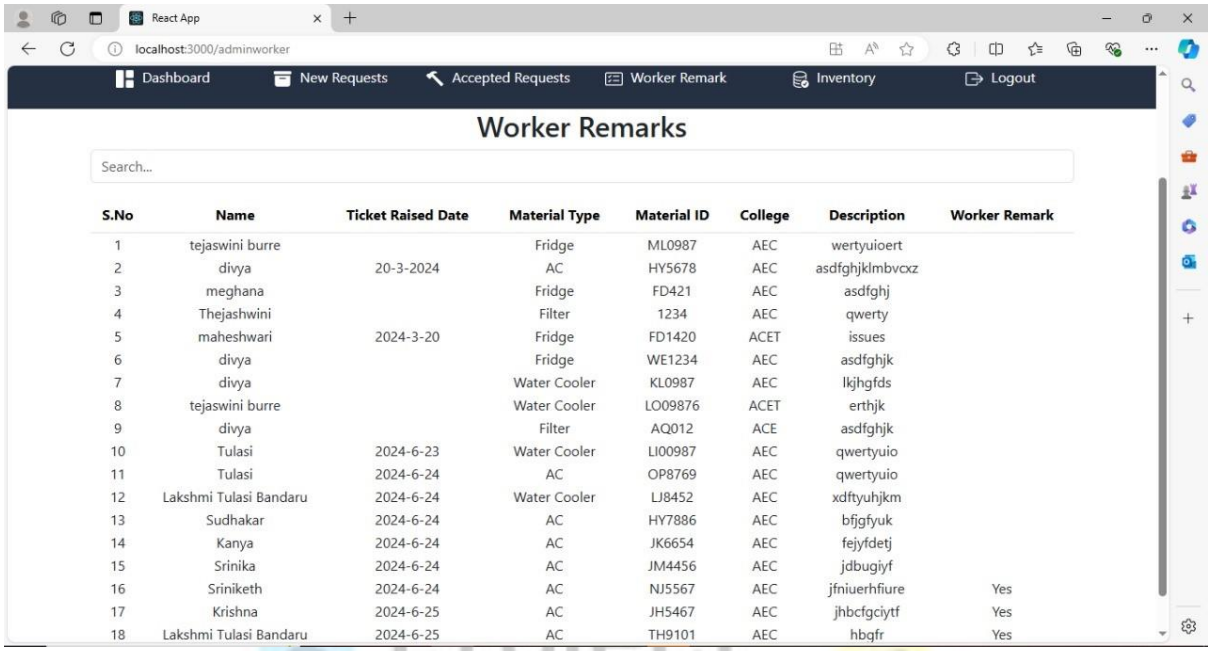
The details of the tickets raised by the users are shown in this tab.





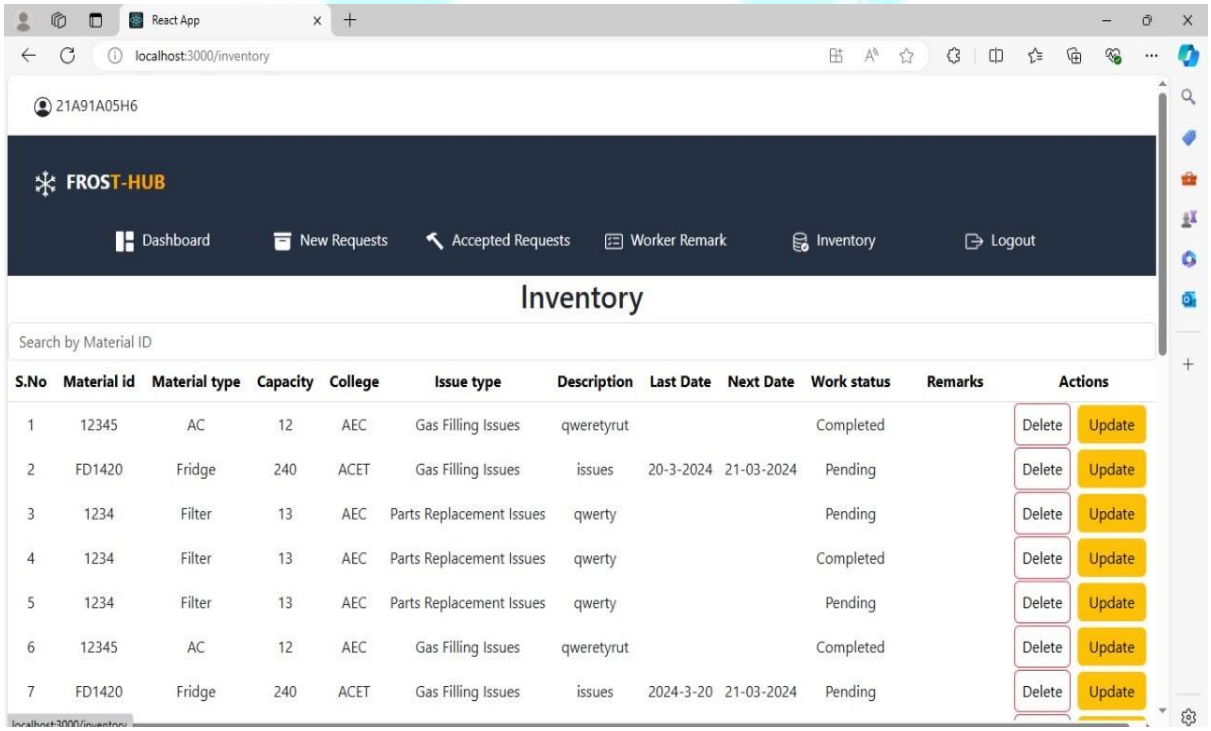
After accepting the request they will be reflected in this tab along with copying the data into worker's menu. Remarks of the electronic appliance will also be updated here.

After the completion of the work worker will update their remarks from their webpage. Those remarks will get reflected in this.



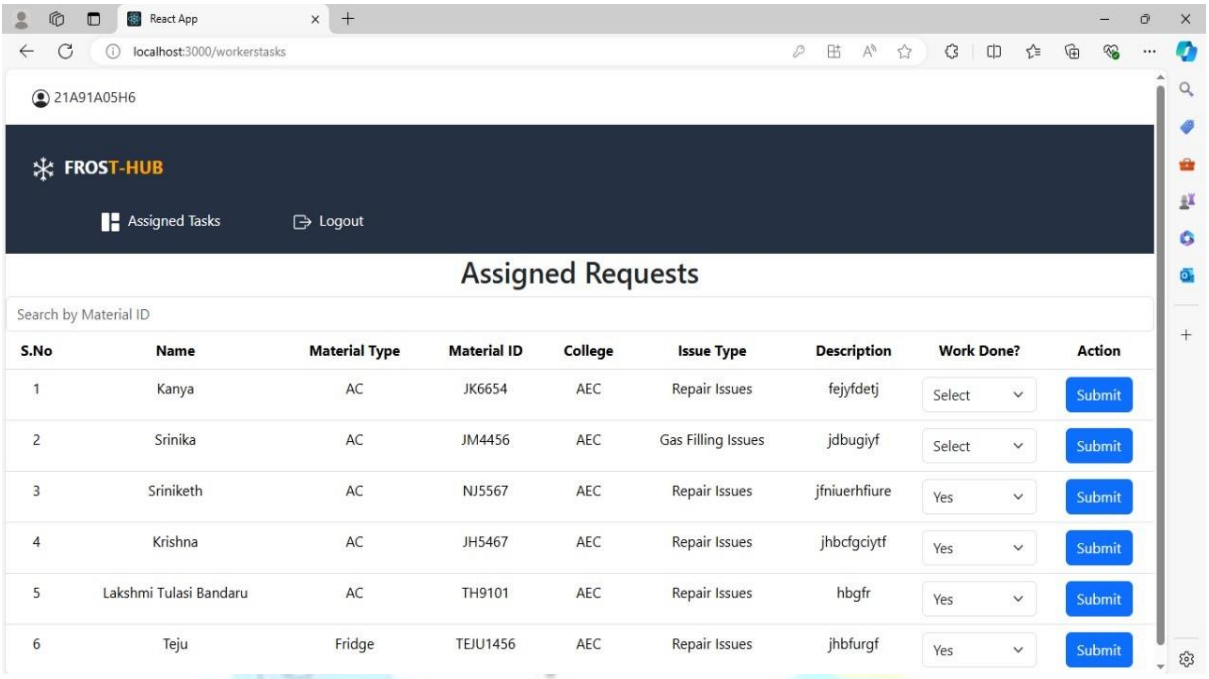
S.No	Name	Ticket Raised Date	Material Type	Material ID	College	Description	Worker Remark
1	tejaswini burre		Fridge	ML0987	AEC	wertyuioert	
2	divya	20-3-2024	AC	HY5678	AEC	asdfghjklmbvcxz	
3	meghana		Fridge	FD421	AEC	asdfghj	
4	Thejashwini		Filter	1234	AEC	qwerty	
5	maheshwari	2024-3-20	Fridge	FD1420	ACET	issues	
6	divya		Fridge	WE1234	AEC	asdfghjk	
7	divya		Water Cooler	KL0987	AEC	lkjhgfds	
8	tejaswini burre		Water Cooler	LO09876	ACET	erthjk	
9	divya		Filter	AQ012	ACE	asdfghjk	
10	Tulasi	2024-6-23	Water Cooler	LI00987	AEC	qwertyuio	
11	Tulasi	2024-6-24	AC	OP8769	AEC	qwertyuio	
12	Lakshmi Tulasi Bandaru	2024-6-24	Water Cooler	LJ8452	AEC	xdftyuhjkm	
13	Sudhakar	2024-6-24	AC	HY7886	AEC	bfjgfyuk	
14	Kanya	2024-6-24	AC	JK6654	AEC	fejyfdetj	
15	Srinika	2024-6-24	AC	JM4456	AEC	jdbugiyf	
16	Sriniketh	2024-6-24	AC	NJ5567	AEC	jfniuerhfiure	Yes
17	Krishna	2024-6-25	AC	JH5467	AEC	jhbcfgciytf	Yes
18	Lakshmi Tulasi Bandaru	2024-6-25	AC	TH9101	AEC	hbgfr	Yes

In this tab, the details regarding the appliances will be stored. These details can be used for further purposes. Here admin is given access for two actions i.e,delete and update.



S.No	Material id	Material type	Capacity	College	Issue type	Description	Last Date	Next Date	Work status	Remarks	Actions
1	12345	AC	12	AEC	Gas Filling Issues	qweretyrut			Completed		Delete Update
2	FD1420	Fridge	240	ACET	Gas Filling Issues	issues	20-3-2024	21-03-2024	Pending		Delete Update
3	1234	Filter	13	AEC	Parts Replacement Issues	qwerty			Pending		Delete Update
4	1234	Filter	13	AEC	Parts Replacement Issues	qwerty			Completed		Delete Update
5	1234	Filter	13	AEC	Parts Replacement Issues	qwerty			Pending		Delete Update
6	12345	AC	12	AEC	Gas Filling Issues	qweretyrut			Completed		Delete Update
7	FD1420	Fridge	240	ACET	Gas Filling Issues	issues	2024-3-20	21-03-2024	Pending		Delete Update

Through this page the worker can update the status of the task they were assigned with and submit the details. After submitting these details will be reflected in the worker remark page of administration.



The complete implementation of the project and its working is taken in a form of video and uploaded into github repository.

CONCLUSION

The project represents a pivotal initiative designed to transform and modernize the organization's approach to managing its critical assets. The successful implementation of this project will address the current inefficiencies and challenges in inventory management, periodical services, maintenance tasks, and data management, leading to a wide array of benefits.

- The project will establish a systematic and proactive approach to equipment maintenance, reducing the frequency and impact of unexpected breakdowns.
- Regular maintenance and timely repairs will extend the lifespan of air conditioners, water coolers, and refrigerators, reducing the need for frequent replacements.
- The implementation of this project will lay the foundation for a culture of proactive maintenance and continuous improvement within the organization.

In conclusion, this project is not just an operational enhancement but a strategic investment in the organization's future. The benefits realized through improved efficiency, cost savings, enhanced service delivery, and data-driven decision-making will provide a strong foundation for sustained growth and success. The organization is poised to lead by example, showcasing the transformative impact of comprehensive management and maintenance practices.