



Project Name: Rent-It
Branch DAC Aug-2025

Documentation On

“RENT-IT”
DAC AUG 2025

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1. Introduction:

1.1 Document Purpose:

This document communicates the business requirements and scope for developing Rent-It System. The scope of this document is to define the functional and non functional requirements, business rules and other constraints requirements.

1.2 Project Background:

Rent-It is a web-based rental platform designed to simplify the process of renting and leasing home appliances for individuals with temporary stays, such as students and professionals. It connects customers seeking short-term appliance use with owners willing to rent out unused items, promoting cost-effectiveness and sustainability. The platform ensures secure user registration, product browsing by category and location, verified listings, and smooth transactions. It also facilitates account management for delivery agents and provides system oversight tools for administrators. Rent-It aims to offer a convenient, transparent, and reliable alternative to traditional offline rental services through a modern, user-friendly digital interface.

1.3 Aim & Objectives:

The main objective of this project is to build a comprehensive web-based rental platform that improves accessibility, transparency, and convenience for both customers and product owners.

- Automate Rental workflow
- provide
- Ensure Data Security
- Simplify product rental and returns

2. Business Requirements Overview:

- **RENT-IT** is a public web application that connects people who need temporary access to home appliances with owners willing to rent out their unused items.
- **Three primary user types:**
 1. **Customers** - Individuals seeking to rent home appliances and furniture
 2. **Owners** - Individuals or businesses offering items for rent
 3. **Administrators** - System managers overseeing platform operations
- **Core Features:**
 - **Product Discovery:** Customers can search and browse available rental items by category, location, price range, and rental duration
 - **Verified Listings:** All products uploaded by owners are verified for authenticity
 - **Order Management:** Complete lifecycle management from booking to return
 - **Self-Pickup Model:** Initially supporting self-pickup to minimize logistical complexity
- **Business Model:**
 - Platform acts as a marketplace connecting customers and owners
 - Revenue through commission on successful rentals
 - Optional premium features for owners (highlighted listings, featured products)

3. Functional Requirements Overview:

The RENT-IT Rental Management System consists of three modules described below:

1. Customer Module
2. Owner Module
3. Admin Module

3.1 Customer Module

Customers are end-users who rent home appliances and furniture through the platform. The Customer Module provides all necessary functionality for account management, product discovery, order placement

- Customers can register.
- Customer can login to the system.
- Customer can search for the desired product.
- Customer can view the details along with standard rates offered.
- Customer can return the products

3.2 Owner Module

Product owners are individuals or businesses who list their items for rent. The Owner Module enables owners to manage their rental inventory, process orders, and track transactions.

- Owner can register.
- Owner can login to the system.
- Owner can upload information about their products.
- Owner can upload images about their items.
- Owner can update the availability.
- Owner can process returns and refunds.

3.3 Admin Module

The Admin Module provides system administrators with tools to manage and maintain the RENT-IT platform, ensure smooth operations, and oversee user activities.

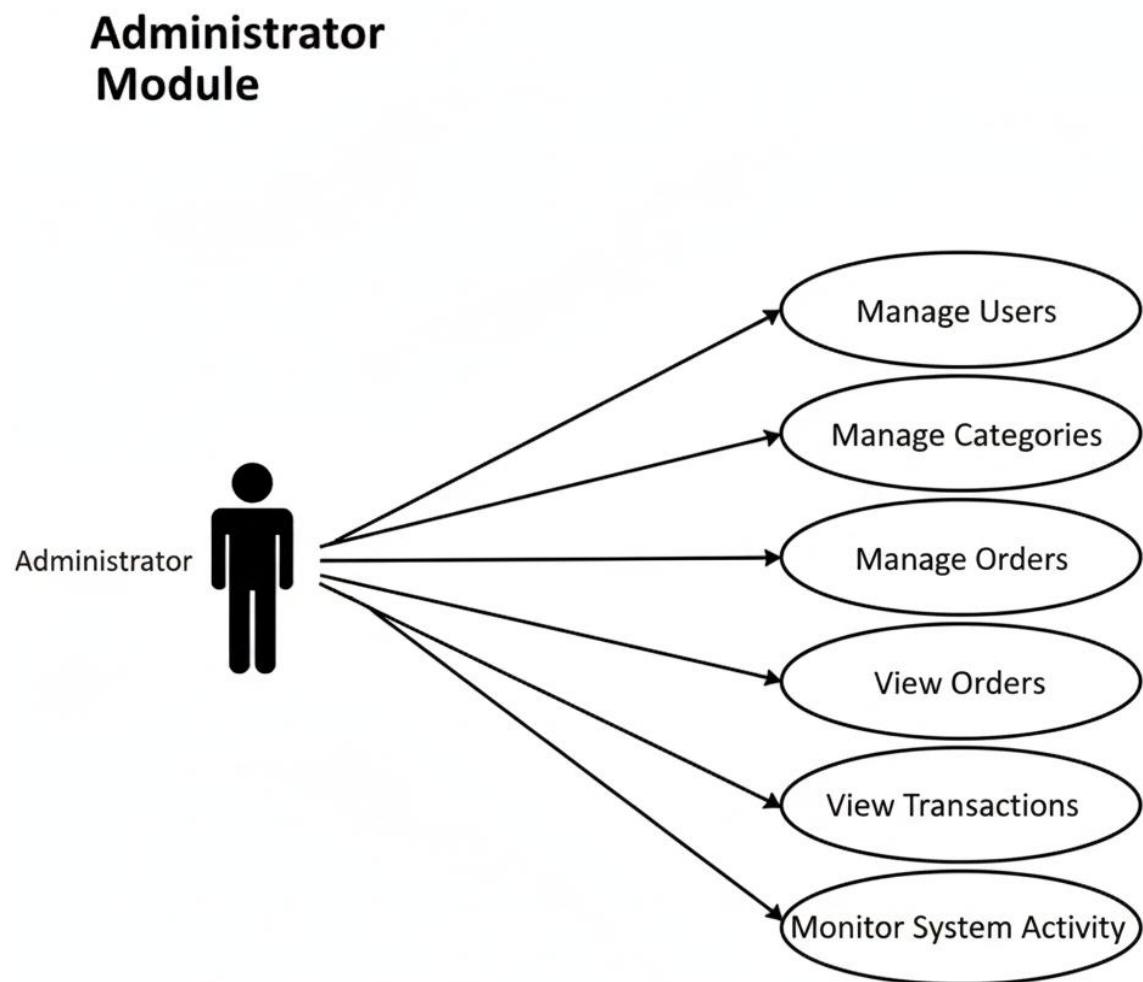
- Administrator will manage users .
- Admins can manage the categories.
- View orders and transaction.
- Monitor system activity

4. Non-Functional Requirement:

- The website should use professional design, look and feel and color scheme.
- Performance: The application should be responsive, efficient, and able to handle large amounts of data without lag or crashes.
- Scalability: The application should be scalable to accommodate future growth and expansion in user base and features.
- Secure authentication and Data integrity

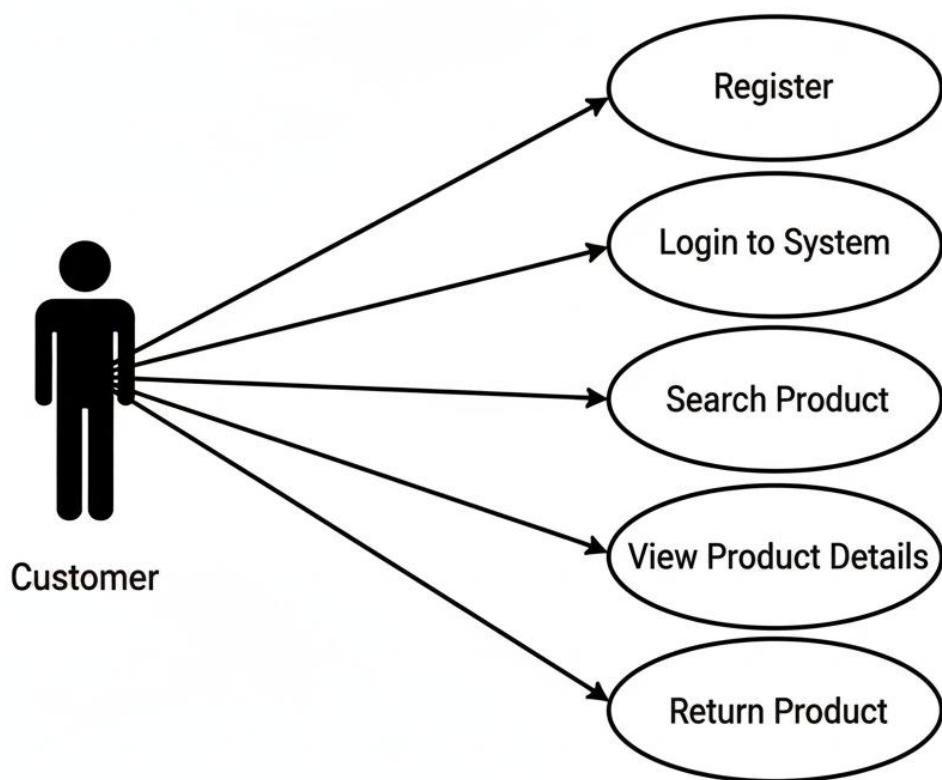
5. Use-Case Diagram :

5.1 Admin :



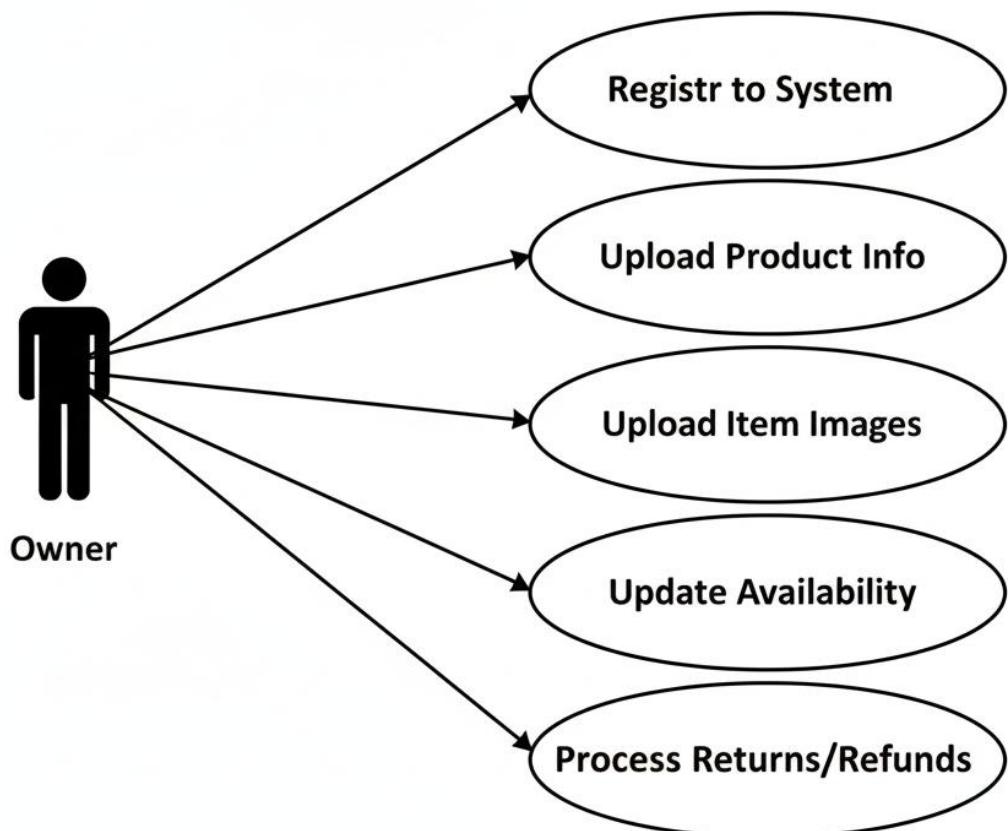
5.2 Customer :

Customer Module

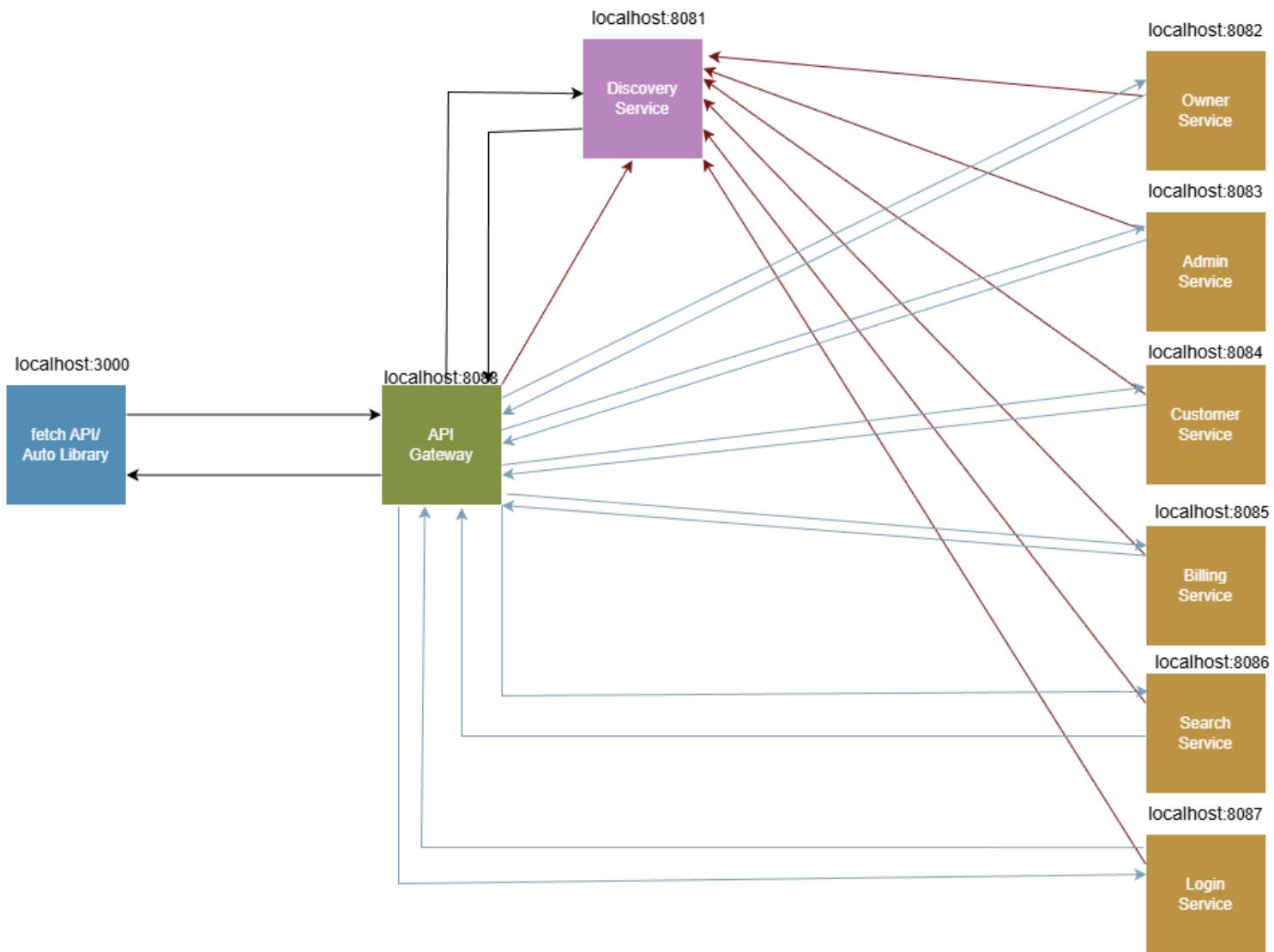


5.3 Owner :

Owner Module



6.Project Architecture Diagram :



7 KNOW IT Database Design :

7.1 Bill Table :

Field	Type	Null	Key	Default	Description
Bill_no	Integer		AI Primary Key	Null	Unique Bill ID
customer_id	Integer		Foreign Key	Null	Customer ID
owner_id	Integer		Foreign Key	Null	Owner ID
item_id	Integer		Foreign Key	Null	Item ID of the owner
amount	Integer			Null	Total bill amount

7.2 cart table:

Field	Type	Null	Key	Default	Description
cart_id	Integer		AI Primary key	Null	Unique ID of cart item
customer_id	Integer		Foreign key	Null	Customer ID to whom the cart belongs
item_id	Integer		Foreign key	Null	Item ID which belongs to a specific owner
datetime	datetime			Null	Date and Time when the product is added to the cart

7.3 category table:

Field	Type	Null	Key	Default	Description
category_id	Integer		AI Primary key	Null	Unique ID of the category
type	Varchar(45)			Null	Type of category
description	Varchar(80)			Null	Description of the category

7.4 city table:

Field	Type	Null	Key	Default	Description
city_id	Integer		AI Primary key	Null	Unique ID of city
city_name	Varchar(255)			Null	Name of the city
state_id	Integer		Foreign Key	Null	State ID

7.5 image table

Field	Type	Null	Key	Default	Description
image_id	Integer		AI Primary key	Null	Unique ID of image
img_1	mediumblob			Null	First Image
img_2	mediumblob			Null	Second Image
img_3	mediumblob			Null	Third Image
img_4	mediumblob			Null	Fourth Image
img_5	mediumblob				Fifth Image
ot_id	Integer		Foreign Key		Unique owner item ID for specific product

7.6 items table:

Field	Type	Null	Key	Default	Description
item_id	Integer		AI Primary key	Null	Unique item ID
item_name	Varchar(45)			Null	Item name
category_id	Integer		Foreign key	Null	Category ID

7.7 order table table:

Field	Type	Null	Key	Default	Description
order_id	Integer		AI Primary key	Null	Unique order ID
customer_id	Integer		Foreign key	Null	Customer ID who has ordered the item
owner_id	Integer		Foreign key	Null	User ID of the owner
start_date	date			Null	Start date of rental period
end_date	date			Null	End date of rental period
payment_status	Varchar(45)			Null	Payment status
delivery_mode	enum('SELF')			Null	Mode of product delivery
owner_item_id	Integer		Foreign key	Null	Product ID of the product

7.8 owner_items table:

Field	Type	Null	Key	Default	Description
ot_id	Integer		AI Primary key	Null	Unique ID of the item
user_id	Integer		Foreign key	Null	User ID of the owner who owns the product
item_id	Integer		Foreign key	Null	Item ID of the item
brand	Varchar(45)			Null	Brand name of the product
description	Varchar(80)			Null	Description of the product
condition_type	Varchar(50)			Null	Condition of the product
rent_per_day	Integer			Null	Rent per day of the product
deposit_amt	Integer			Null	Deposit amount of the product
status	enum(AVAILABLE,UNAVAILABLE)				
max_rent_days	Integer			Null	Maximum days a product can be rented by the customer

7.9 role table:

Field	Type	Null	Key	Default	Description
role_id	AI Primary Key		Primary key	Null	Unique area ID
role_name	Varchar(45)			Null	Name of the area

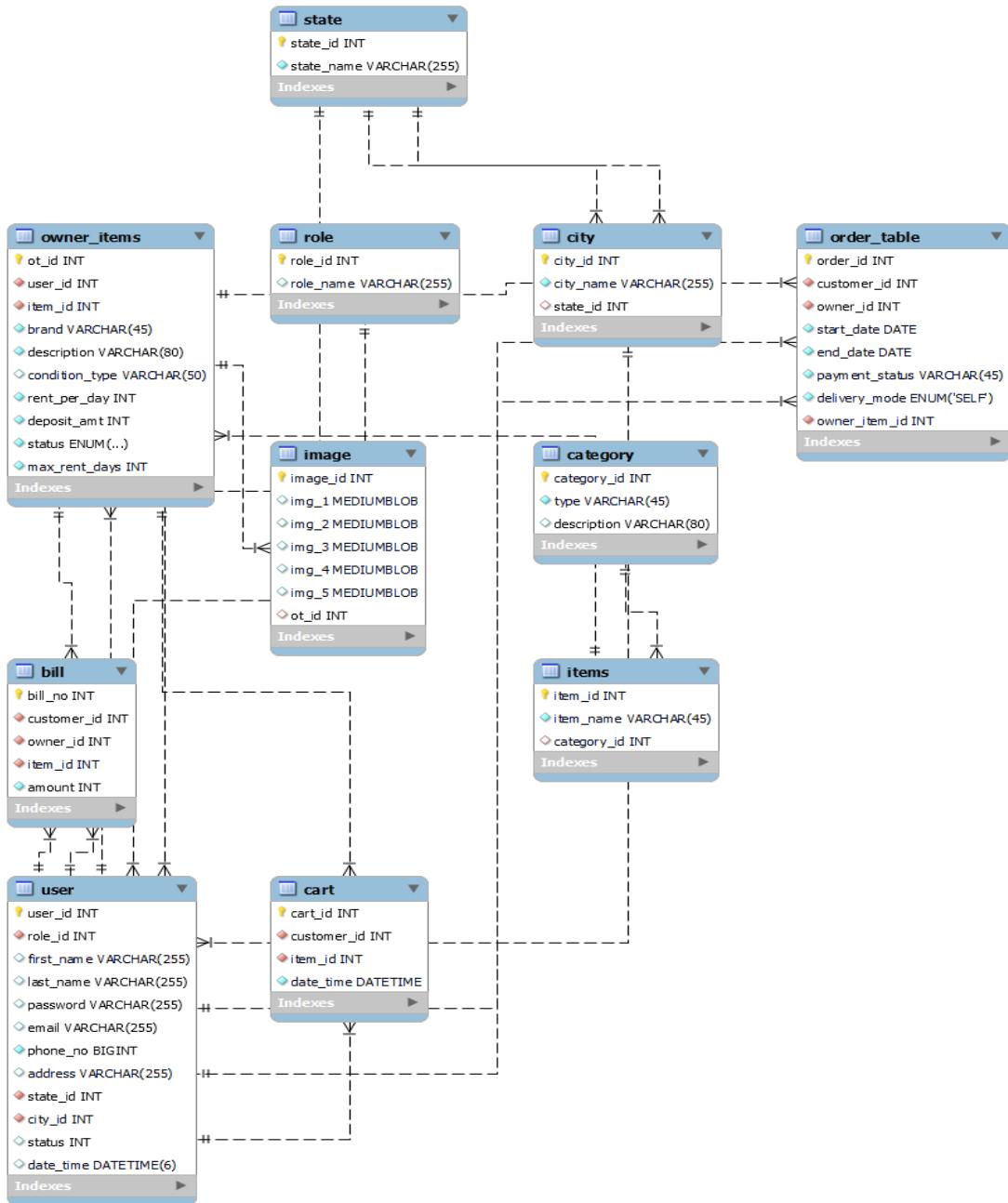
7.10 state table:

Field	Type	Null	Key	Default	Description
state_id	AI Primary key		--	Null	Unique state ID
state_name	Integer			Null	state name

7.11 user table:

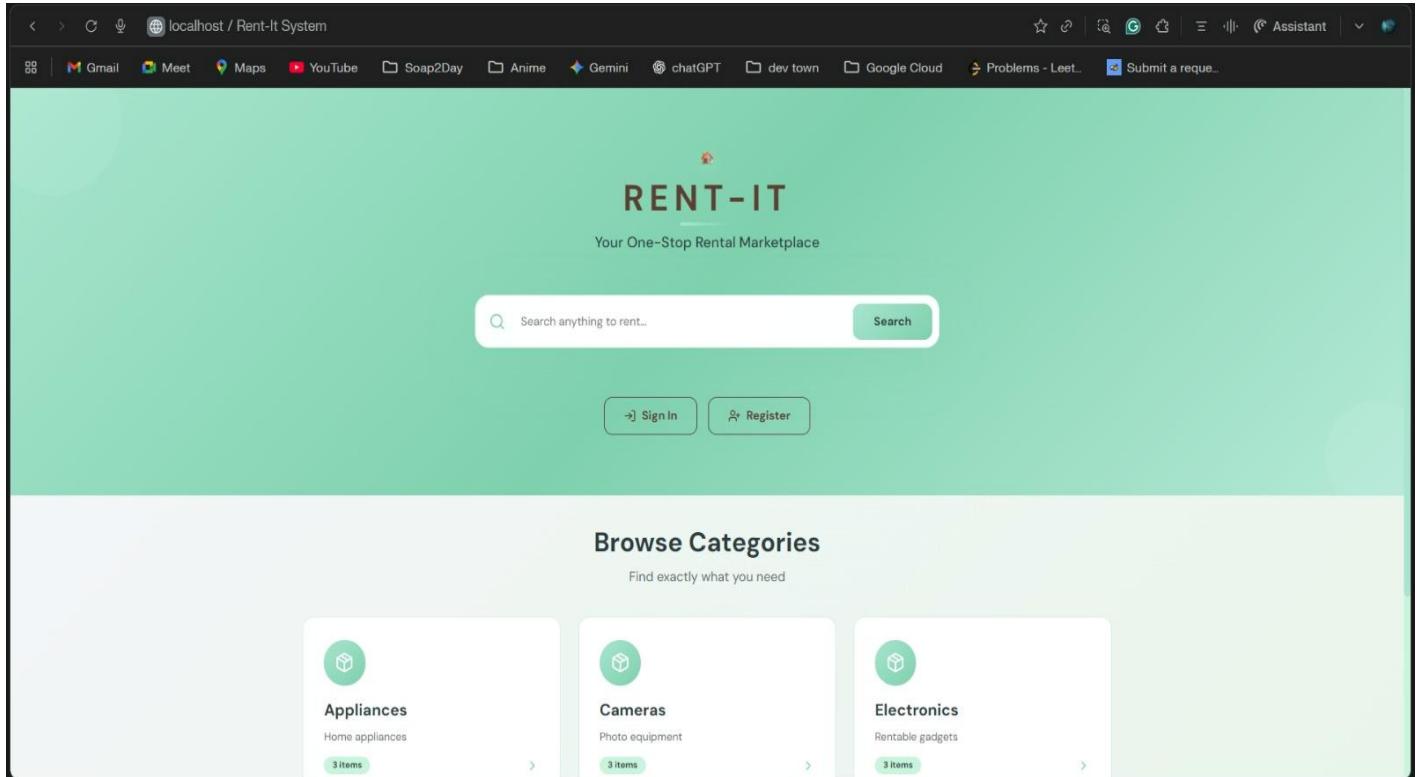
Field	Type	Null	Key	Default	Description
user_id	AI Primary Key		AI Primary key	Null	Unique user ID
role_id	Integer		Foreign key	Null	Role of the user
first_name	Varchar(255)				First name of the user
last_name	Varchar(255)				Last name of the user
password	Varchar(255)				Password of the user
email	Varchar(255)				Email of the user
phone_no	Big Integer				Contact number of the user
address	Varchar(255)				Address of the user
state_id	Integer		Foreign key		State of the user
city_id	Integer		Foreign key		City of the user
status	Integer				Status of the user account
date_time	datetime(6)				Date and time when the user account is created

8.E-R Diagram

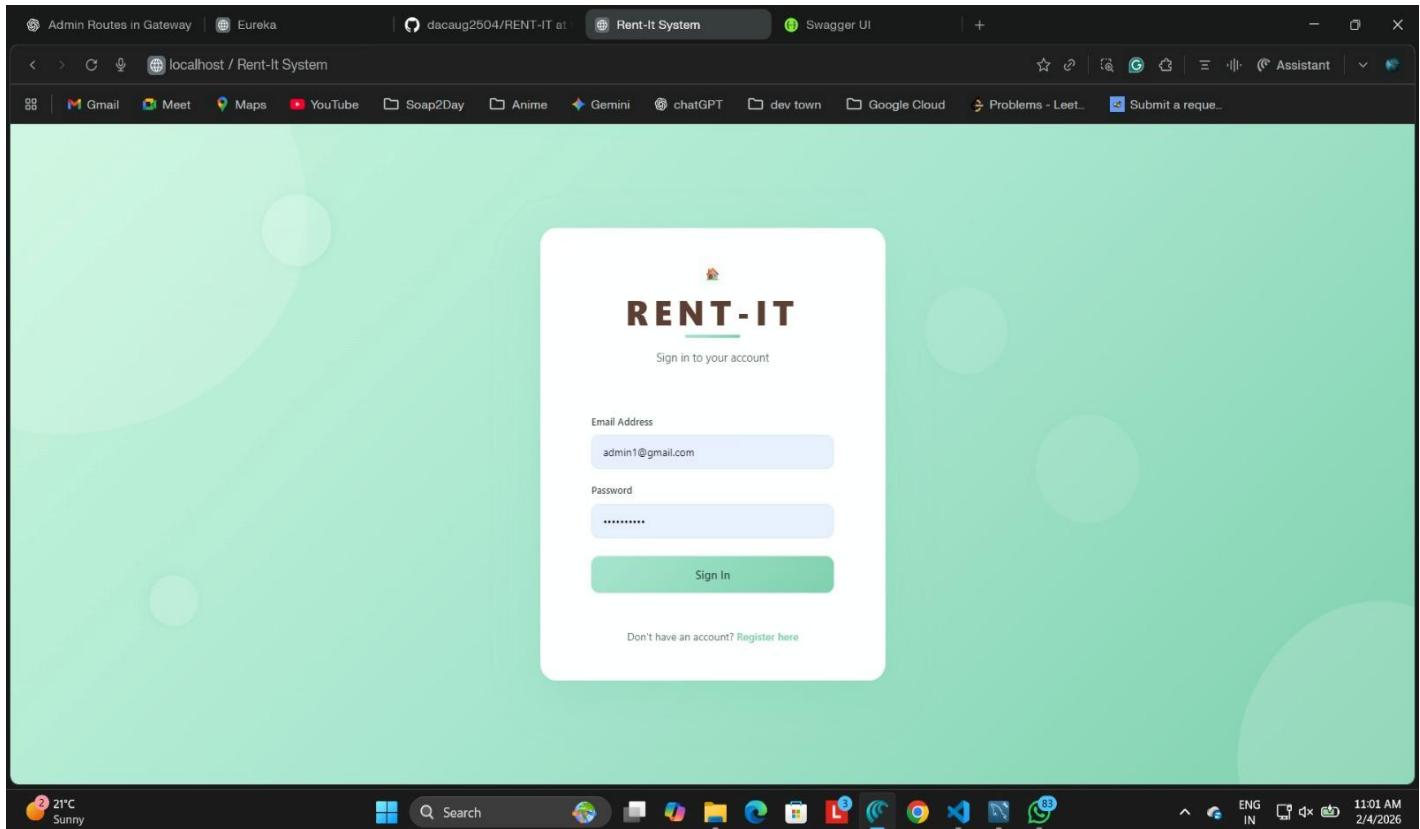


9. Snapshots

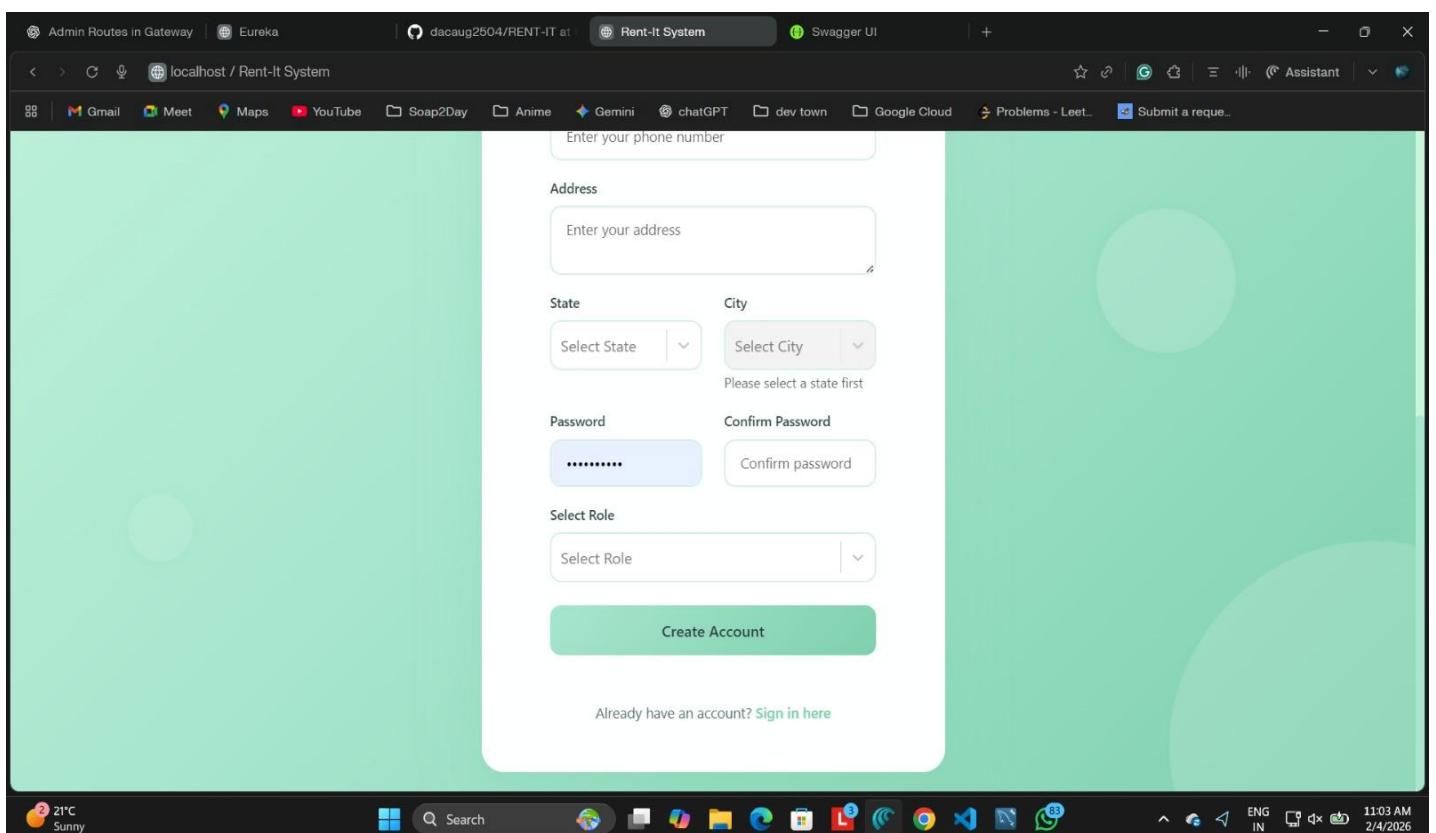
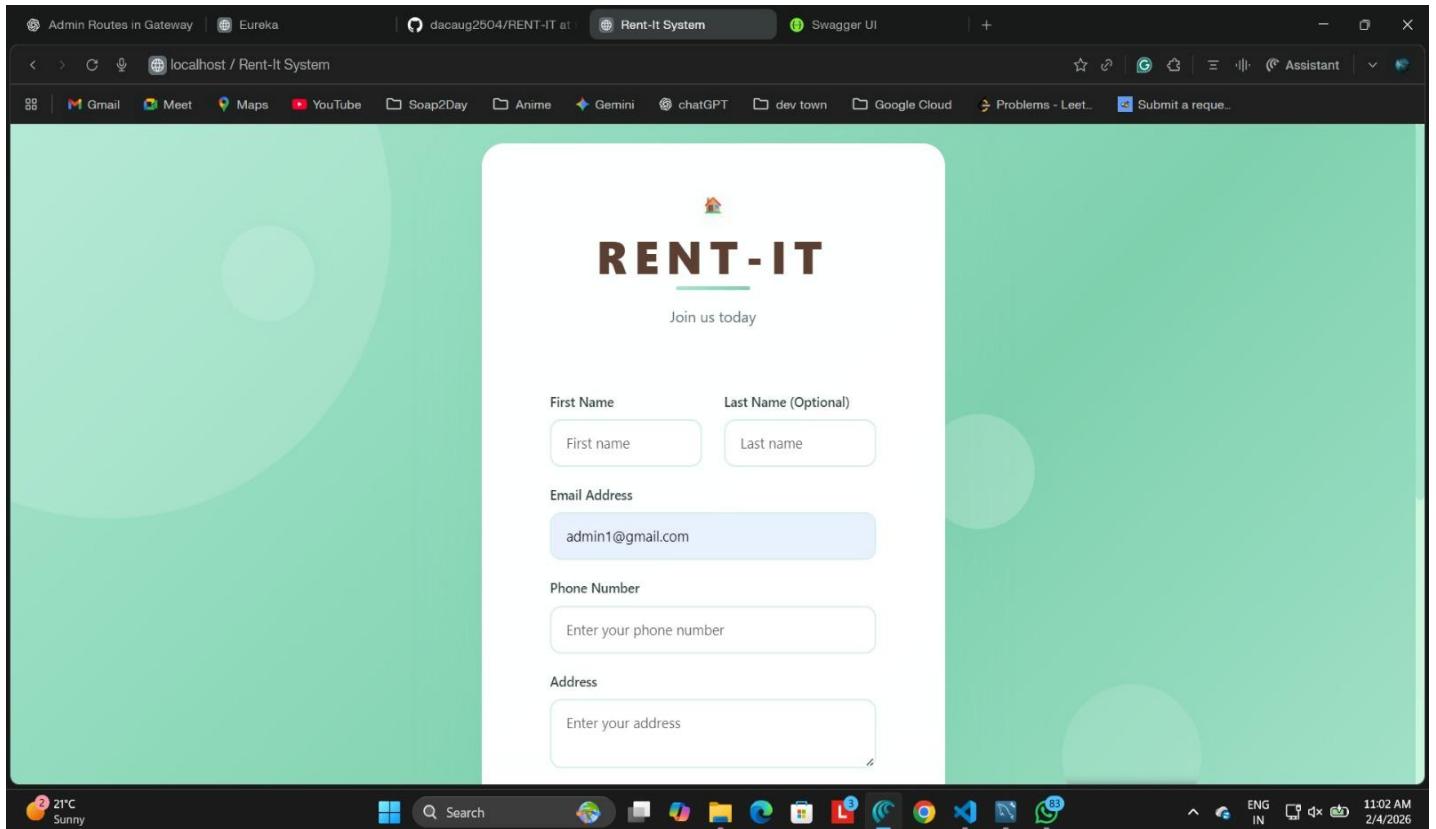
9.1 Home Page



9.2 Login page



9.3 Registration page



9.4 Admin Dashboard :

Welcome back, AVISHKAR SAWANT

Logout

Dashboard User Management Category Management Item Management

Total Users: 8 REGISTERED USERS

Active Users: 6 CURRENTLY ACTIVE

Categories: 6 PRODUCT CATEGORIES

Items: 18 LISTED ITEMS

News for you: Rupee jumps 124...

Search Assistant ENG IN 11:04 AM 2/4/2026

Manage user accounts and permissions

User Management Logout

Dashboard User Management Category Management Item Management

Search: Search by name or email... Role: All Roles Status: All Status

ID	NAME	EMAIL	PHONE	ROLE	STATUS	ACTIONS
106	AVISHKAR SAWANT	admin1@gmail.com	7378386908	ADMIN	ACTIVE	<button>Suspend</button> <button>Disable</button>
107	GIRISH SHARMA	girish@gmail.com	9825463728	ADMIN	ACTIVE	<button>Suspend</button> <button>Disable</button>
102	Priya Reddy	priya.reddy@gmail.com	9376289394	OWNER	ACTIVE	<button>Suspend</button> <button>Disable</button>

News for you: Rupee jumps 124...

Search Assistant ENG IN 11:04 AM 2/4/2026

Admin Routes in Gateway | Eureka | dacaug2504/RENT-IT at | Rent-It System | Swagger UI | +

localhost / Rent-It System

Gmail Meet Maps YouTube Soap2Day Anime Gemini chatGPT dev town Google Cloud Problems - Leet.. Submit a reque..

Category Management

Manage product categories

[Logout](#)

[Dashboard](#) [User Management](#) [Category Management](#) [Item Management](#)

Manage Categories

Create, edit, and delete product categories

[+ Add New Category](#)

Search: Search categories...

Category	ID	Description	Items
Electronics	ID: 1	Rental gadgets	3 items
Furniture	ID: 2	Home furniture	3 items
Appliances	ID: 3	Home appliances	3 items
Cameras	ID: 4	Photo equipment	3 items

News for you: Rupee jumps 124... 11:05 AM 2/4/2026

Admin Routes in Gateway | Eureka | dacaug2504/RENT-IT at | Rent-It System | Swagger UI | +

localhost / Rent-It System

Gmail Meet Maps YouTube Soap2Day Anime Gemini chatGPT dev town Google Cloud Problems - Leet.. Submit a reque..

Item Management

Manage product items

[Logout](#)

[Dashboard](#) [User Management](#) [Category Management](#) [Item Management](#)

Manage Items

Create, edit, and delete product items

[+ Add New Item](#)

Search: Search items... Category: All Categories

ID	ITEM NAME	CATEGORY	ACTIONS
1	Laptop	Electronics	Edit Delete

Air: Satisfactory Tomorrow 11:05 AM 2/4/2026

9.4 Customer Dashboard

The screenshot shows the Rent-It System Customer Dashboard. At the top, there's a navigation bar with tabs for "Admin Routes in Gateway", "Eureka", "localhost / Rent-It System", "Rent-It System", and "Swagger UI". Below the navigation bar is a toolbar with links to "Gmail", "Meet", "Maps", "YouTube", "Soap2Day", "Anime", "Gemini", "chatGPT", "dev town", "Google Cloud", "Problems - Leet...", and "Submit a request...". The main content area has a header "Rent-It System" with a house icon, and a "Logout" button. It displays a welcome message "Welcome back, Priya! 🙌" and a sub-message "Manage your products and rental listings". A green button labeled "OWNER Account" is visible. Below this, a section titled "Quick Actions" contains three items: "Add Product" (green background, plus icon), "My Listings" (white background, cube icon), and "My Bills" (light blue background, document icon). The taskbar at the bottom shows various application icons and the system clock "11:05 AM 2/4/2026".

The screenshot shows the "Add New Item for Rent" form. The title is "Add New Item for Rent" with a cube icon. The form fields include: "Category *", "Select Category" dropdown; "Item *", "Select Item" dropdown; "Brand *", a text input field; "Description *", a text input field with a character limit of 0/80; and "Condition *", a text input field with placeholder text "e.g. Working, Excellent, Slightly Used". The footer of the window shows the same navigation and toolbar as the dashboard. The taskbar at the bottom is identical to the one in the previous screenshot.

The screenshot shows a web-based application for creating a new rental item. The interface includes fields for a detailed description, product images (with three optional slots), and financial details like rent per day, security deposit, and maximum rent days. A large green 'Add Item' button is at the bottom.

Product Description:
e.g. Working, Excellent, Slightly Used
Max 50 characters

Product Images (optional):
No Image | Choose File | N...n
No Image | Choose File | N...n
No Image | Choose File | N...n

You can upload up to 3 images(You can add more images later from Edit Product)

Rent Per Day (₹) * e.g. 150 **Security Deposit (₹) *** e.g. 2000 **Max Rent Days *** e.g. 30

Maximum number of days this item can be rented

Add Item

The screenshot shows the main dashboard of the Rent-It System. It features a header with the system name and navigation links. Below is a section titled 'My Products' displaying a grid of rental items. Each item card includes details like brand, category, and rental terms, along with edit and delete buttons.

My Products

+ Add New Product

Laptop	Tablet	Gaming Console
Brand: HP Category: Electronics HP Pavilion 14, 16GB RAM SSD Rent/Day: ₹100 Deposit: ₹0 Condition: Like New	Brand: Apple Category: Electronics iPad 9th Gen 64GB Rent/Day: ₹600 Deposit: ₹4000 Condition: Excellent	Brand: Sony Category: Electronics PlayStation 5 with 2 controllers Rent/Day: ₹100 Deposit: ₹7000 Condition: Like New
Sofa Set	Bed Frame	Dining Table
Brand: IKEA	Brand: Wakefit	Brand: Nilkamal

Admin Routes in Gateway | Eureka | Rent-It System | Swagger UI | +

localhost / Rent-It System | Gmail | Meet | Maps | YouTube | Soap2Day | Anime | Gemini | chatGPT | dev town | Google Cloud | Problems - Leet... | Submit a reque...

Rent-It System

Dashboard | My Listings | Edit Product | Logout

Edit Product

 Edit Details

Brand: HP

Description: HP Pavilion 14, 16GB RAM SSD

Condition: LIKE_NEW

Rent per Day (₹): 100

Security Deposit (₹):

 Edit Images

Choose File | N... | Delete

Choose File | N... | Delete

Choose File | N... | Delete

No Image | No Image

Air Satisfactory Tomorrow | Search | Taskbar icons | 11:07 AM 2/4/2026

Rent-It System | +

localhost / Rent-It System | Gmail | Meet | Maps | YouTube | Soap2Day | Anime | Gemini | chatGPT | dev town | Google Cloud | Problems - Leet... | Submit a reque...

My Bills

70 invoices | Back

Invoice #1	View →
Item: Apple Owner: Priya Reddy Date: 4/2/2026	Amount: ₹15,400

Invoice #2	View →
Item: IKEA Owner: Priya Reddy Date: 4/2/2026	Amount: ₹13,800

Invoice #3	View →
Item: Samsung Owner: Priya Reddy Date: 4/2/2026	Amount: ₹29,850

Invoice #4	View →
Item: Apple Owner: Priya Reddy Date: 4/2/2026	Amount: ₹8,800

Invoice #5	View →
Item: IKEA Owner: Priya Reddy Date: 4/2/2026	Amount: ₹6,600

21°C Sunny | Search | Taskbar icons | 11:19 AM 2/4/2026

My Bills

Rental Income

Invoice #	Item	Customer	Amount	Action
#1	Apple	Vikram Singh	₹15400	<button>View</button>
#2	IKEA	Vikram Singh	₹13800	<button>View</button>
#3	Samsung	Vikram Singh	₹29850	<button>View</button>
#4	Apple	Vikram Singh	₹8800	<button>View</button>
#5	IKEA	Vikram Singh	₹6600	<button>View</button>
#6	Samsung	Vikram Singh	₹9700	<button>View</button>
#7	Sony	Vikram Singh	₹14200	<button>View</button>

9.5 Customer Dashboard

The screenshot shows a web browser window for the 'Rent-It System' customer portal. At the top, there are several tabs and links including 'Admin Routes in Gateway', 'Eureka', 'dacaug2504/RENT-IT at', 'Rent-It System', 'Swagger UI', 'Fully automatic front load', and various system status indicators like 'Assistant'. Below the header, the main content area has a light green background. It features a 'Welcome back, Vikram' message with a waving hand emoji, followed by a subtext: 'Discover premium appliances for rent. Quality products, flexible terms, delivered to your doorstep.' Two buttons are present: 'Browse Products' and 'View Cart'. At the bottom of the page, there's a standard Windows taskbar with icons for various applications like Mail, Meet, Maps, YouTube, and DevTown.

The screenshot shows the 'Available Appliances' section of the Rent-It System. The title 'Available Appliances' is centered at the top, with a note below it stating '32 products available'. Four product cards are displayed in a row:

- HP**: HP Pavilion 14, 16GB RAM SSD. Price: ₹100 /day. Add to Cart and View Details buttons.
- Sony**: PlayStation 5 with 2 controllers. Price: ₹100 /day. Add to Cart and View Details buttons.
- IKEA**: 3-seater fabric sofa. Price: ₹450 /day. Add to Cart and View Details buttons.
- Wakefit**: Queen size bed with storage. Price: ₹500 /day. Add to Cart and View Details buttons.

At the bottom of the page, there's a standard Windows taskbar with icons for various applications like Mail, Meet, Maps, YouTube, and DevTown.

HP
₹100/day
Deposit: ₹0
AVAILABLE

IKEA
₹450/day
Deposit: ₹3000
AVAILABLE

Breakdown
2 item(s) • Rent + Deposits

Total Rent	₹3,850
Total Deposit	₹3,000
TOTAL	₹6,850

Place Order • ₹6,850

RENT-IT
Rental Invoice

INVOICE
#70
Date: 04/02/2026

CUSTOMER DETAILS

Name: Vikram Singh
Email: vikram.singh@gmail.com
Phone: 7847362540
Address: Survey No. 77/5, Flat No. 601, Green Valley Apartments, Sector 62 Road, Sector 62, Noida 201309
City, State: Noida, Uttar Pradesh

OWNER DETAILS

Name: Priya Reddy
Email: priya.reddy@gmail.com
Phone: 9376289394
Address: Survey No. 118/7B, Flat No. 304, Sri Lakshmi Residency, 5th Cross, Indiranagar, Bengaluru 560038
City, State: Bengaluru, Karnataka

RENTAL ITEM DETAILS

Air: Satisfactory
Tomorrow

10. Conclusion and Future scope :

RENT-IT Rental Management System successfully addresses the growing need for a digital platform connecting customers seeking short-term home appliances with owners willing to rent out their unused items. The system has been designed with scalability, security, and user experience as core priorities. The three-tier architecture ensures maintainability and allows for easy feature additions in the future.

While the current system provides a solid foundation, several enhancements can be implemented in future versions, including geographic expansion such as Pan-India coverage beyond pilot cities, location-based services through Google Maps integration for distance calculation and route optimization, multi-language support with Hindi and regional interfaces, and even international expansion for other countries; enhanced delivery options like home delivery through logistics partnerships, doorstep pickup, installation services for complex appliances, real-time delivery tracking, and scheduled pickups for customer convenience; and advanced features such as a dedicated mobile application for Android and iOS with push notifications, mobile payment integration, and offline access, along with AI/ML capabilities like personalized product recommendations based on browsing behavior and dynamic pricing powered by demand and usage patterns.