



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

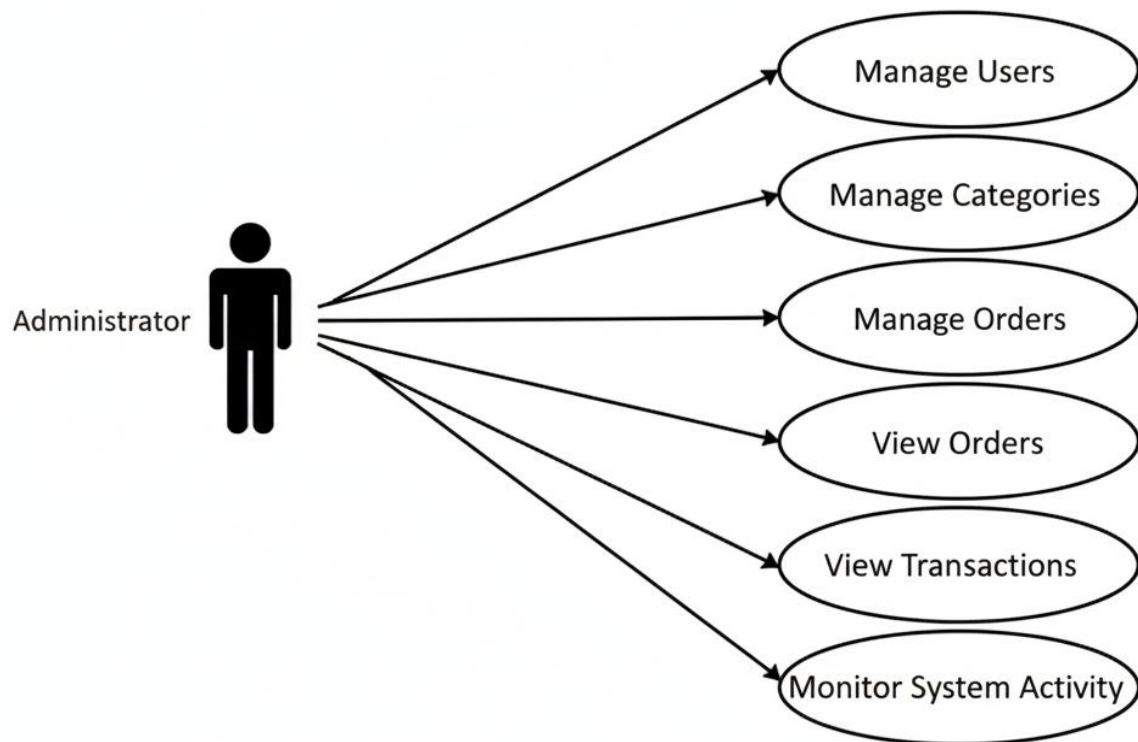
## **4. Non-Functional Requirement:**

- 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 :

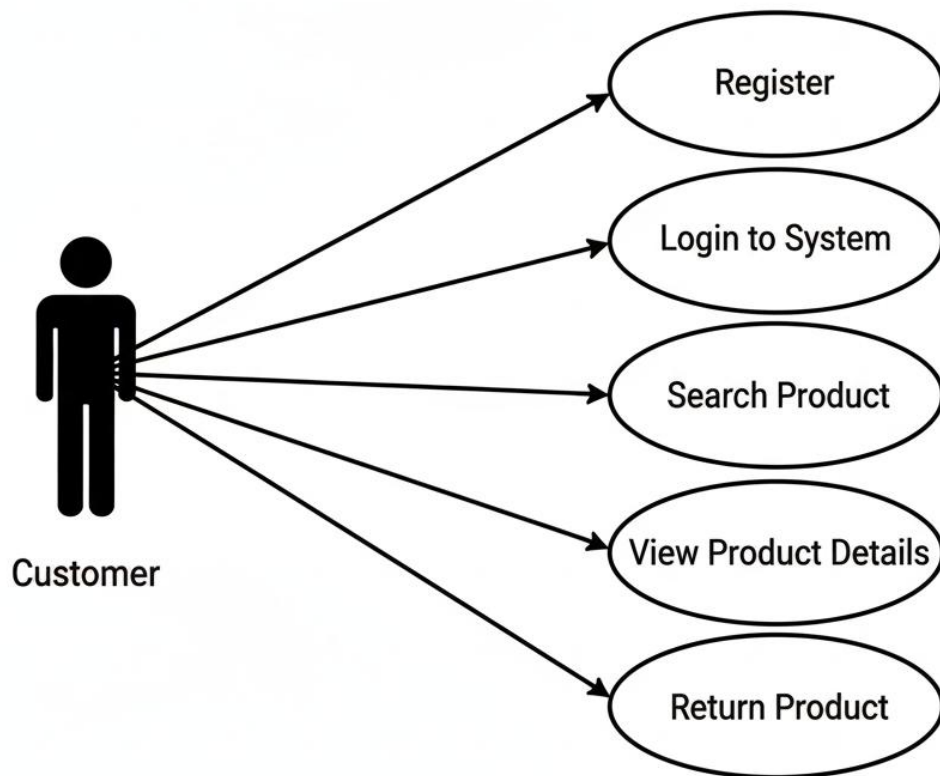
#### Administrator Module





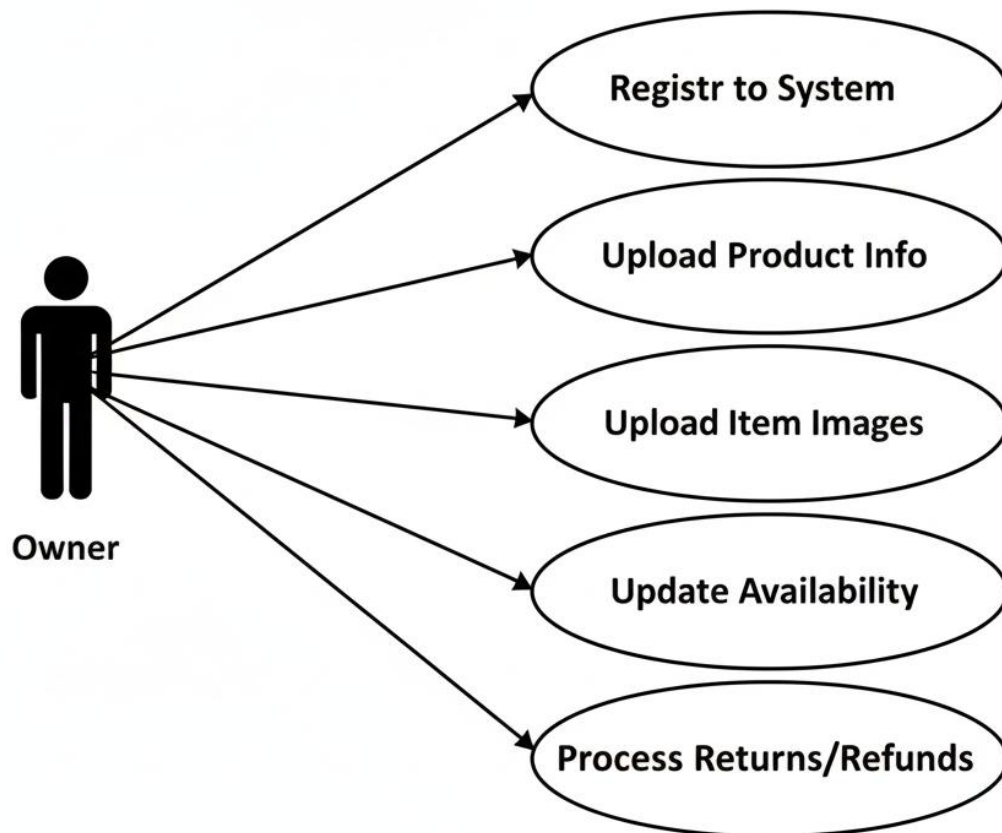
## 5.2 Customer :

### Customer Module

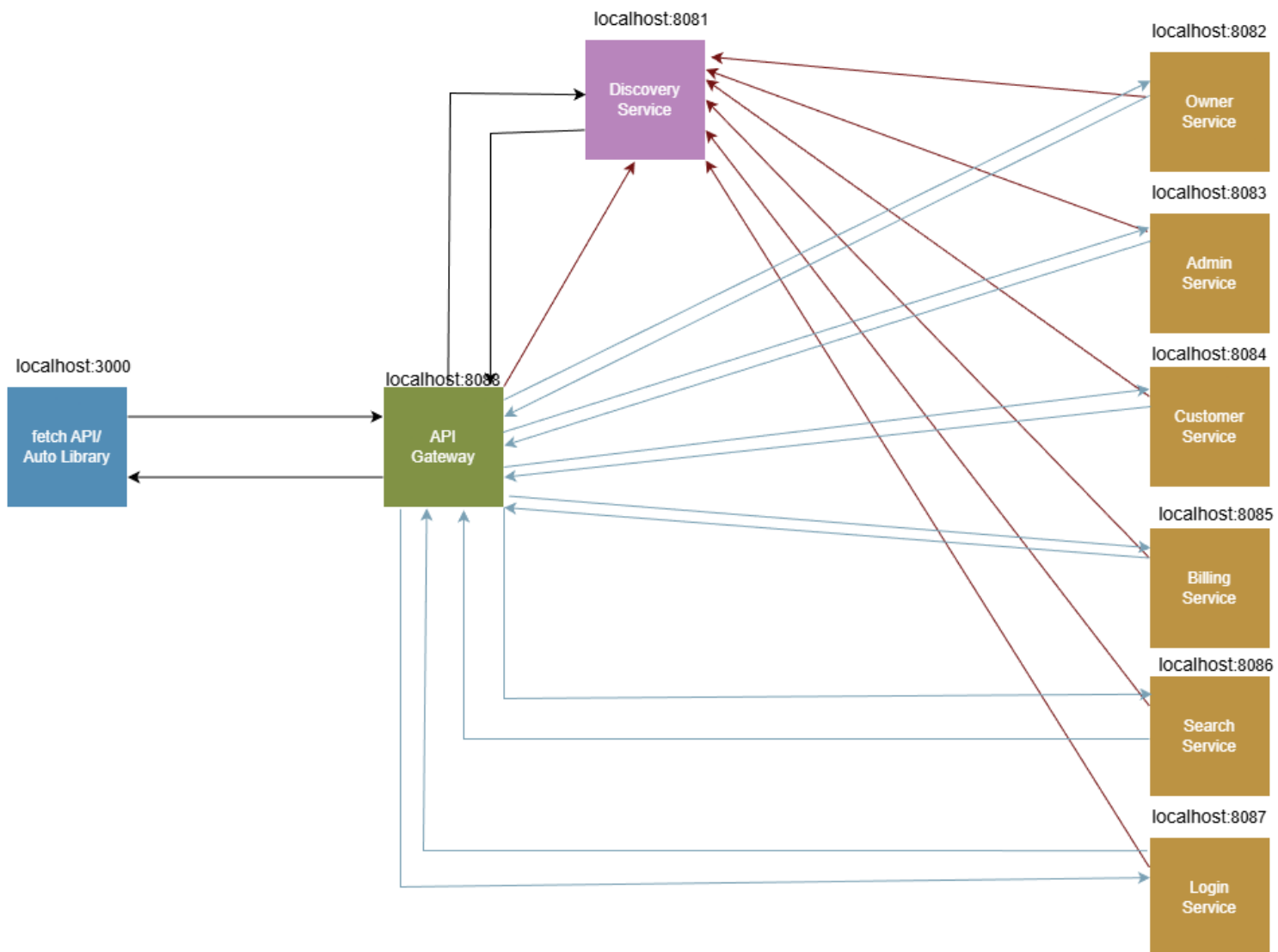


## 5.3 Owner :

## Owner Module



## 6. Project Architecture Diagram :



## 7. <sup>KNOW-IT</sup>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

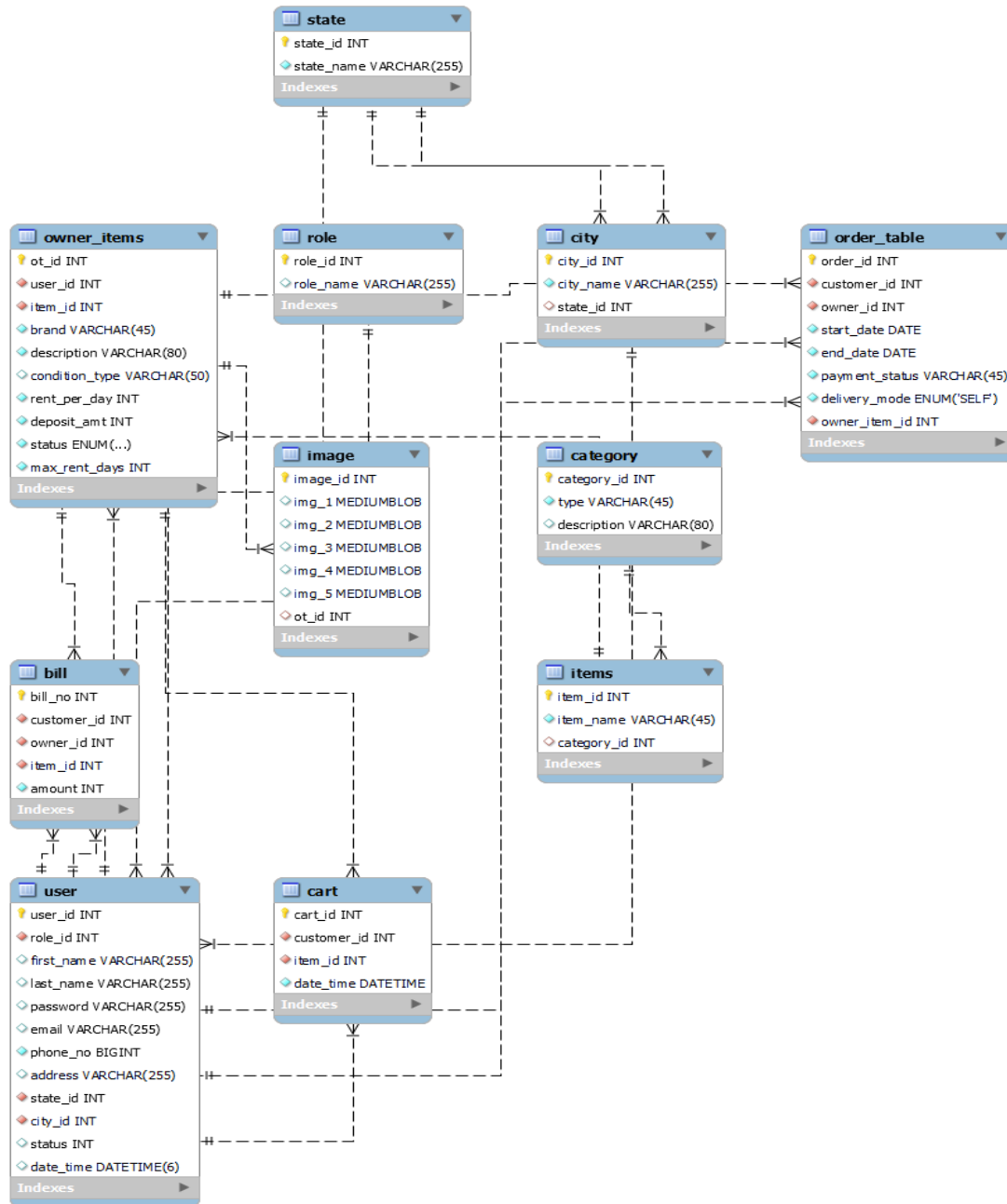
**7.10 state table:**

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

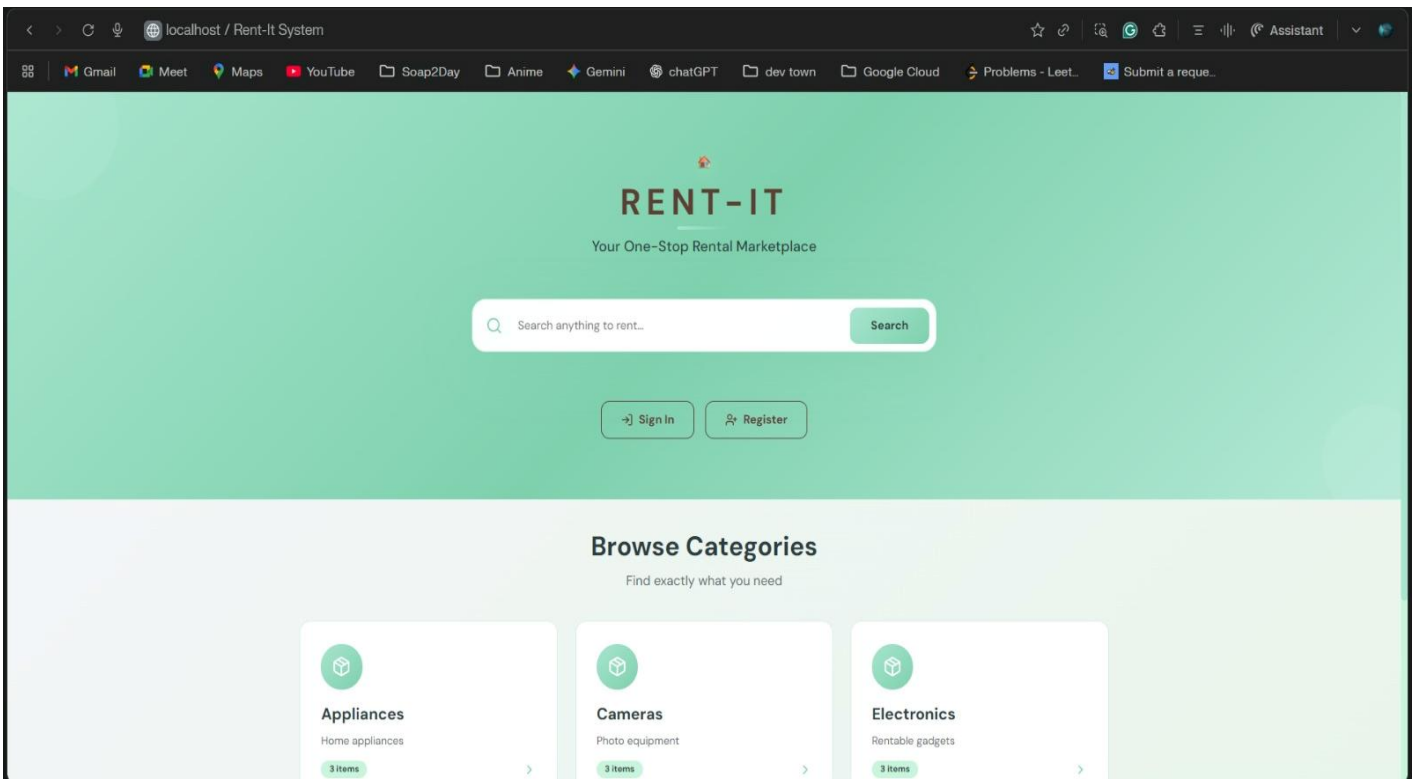
## 8.E-R Diagram



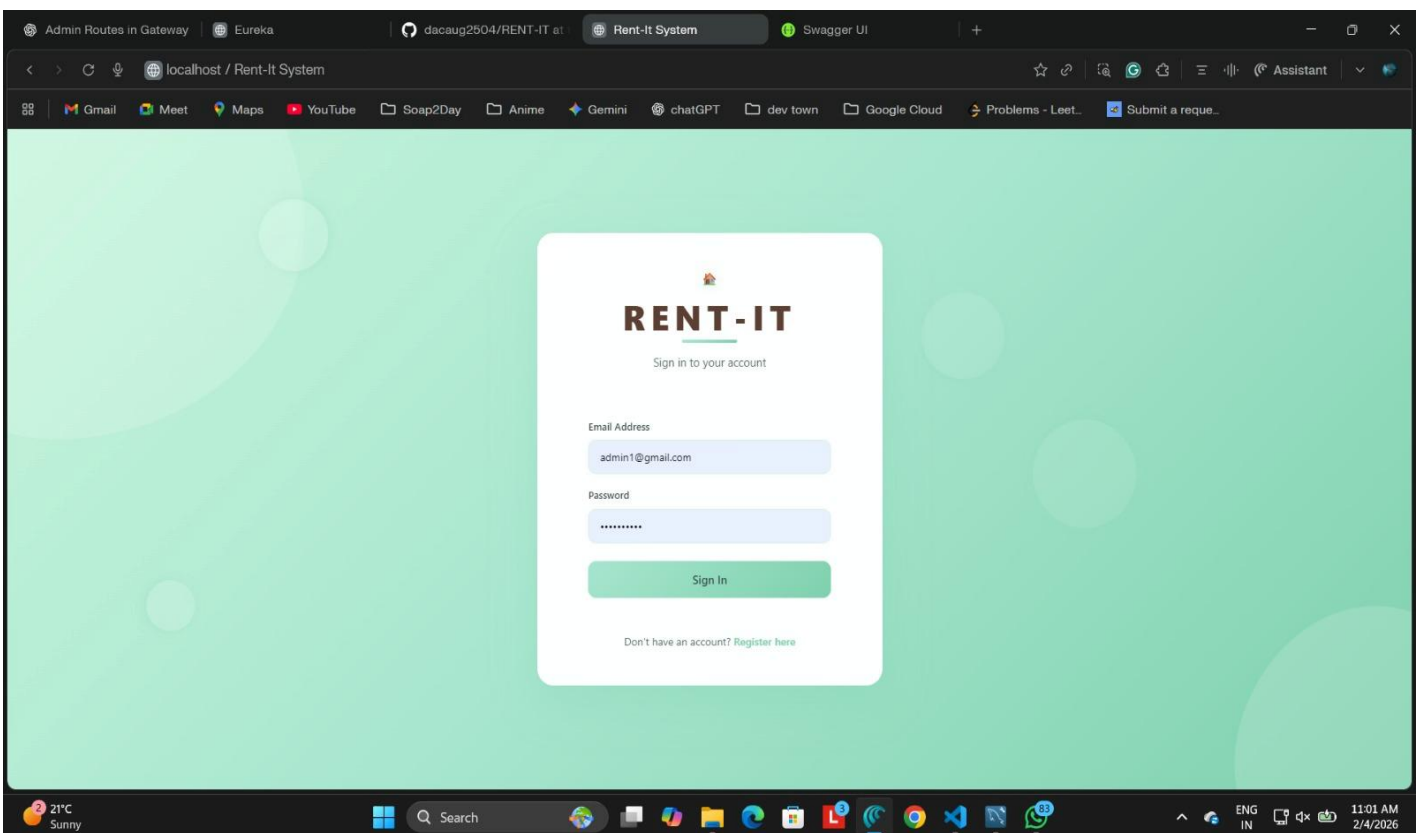


## 9. Snapshots

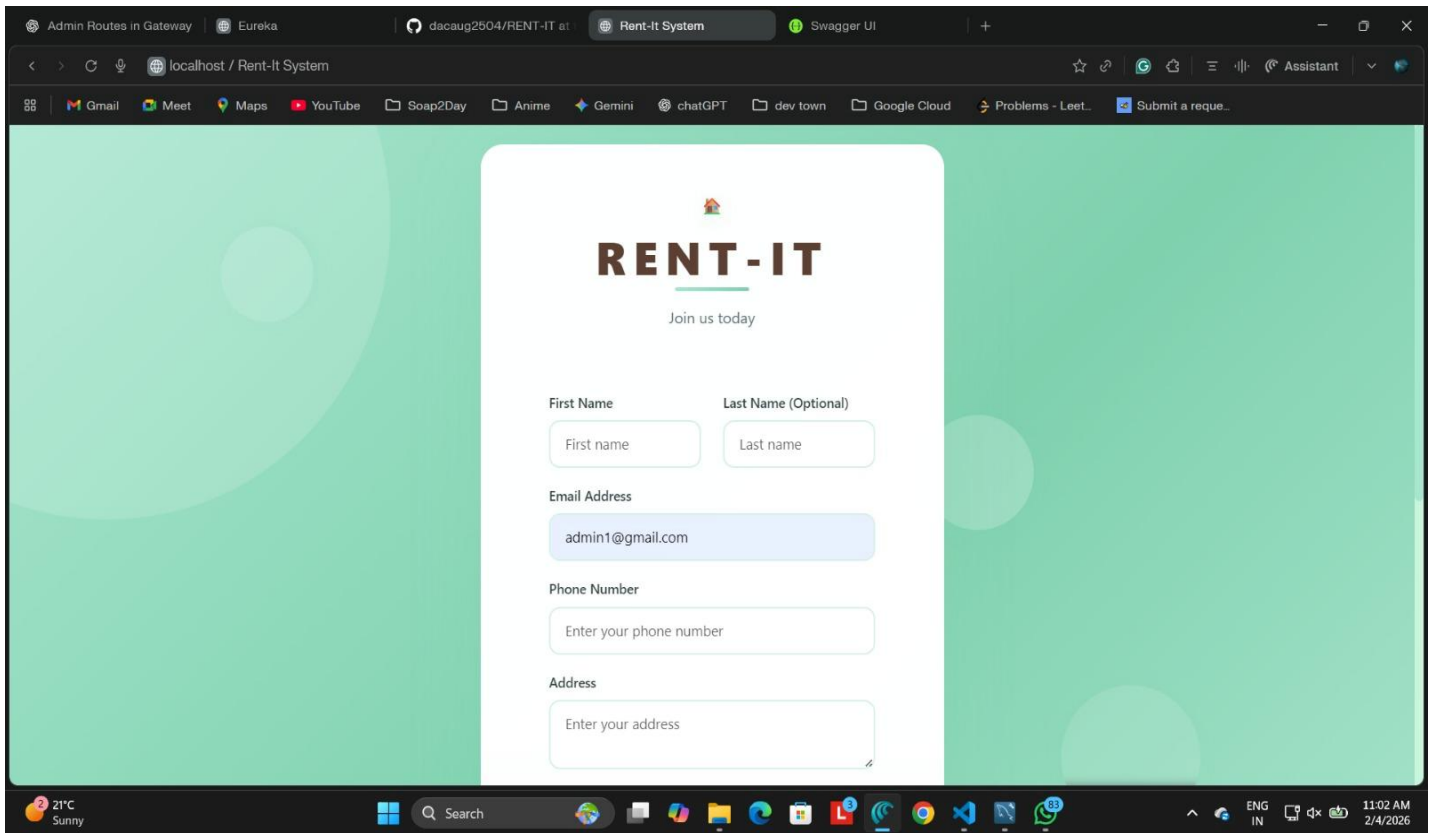
### 9.1 Home Page



### 9.2 Login page



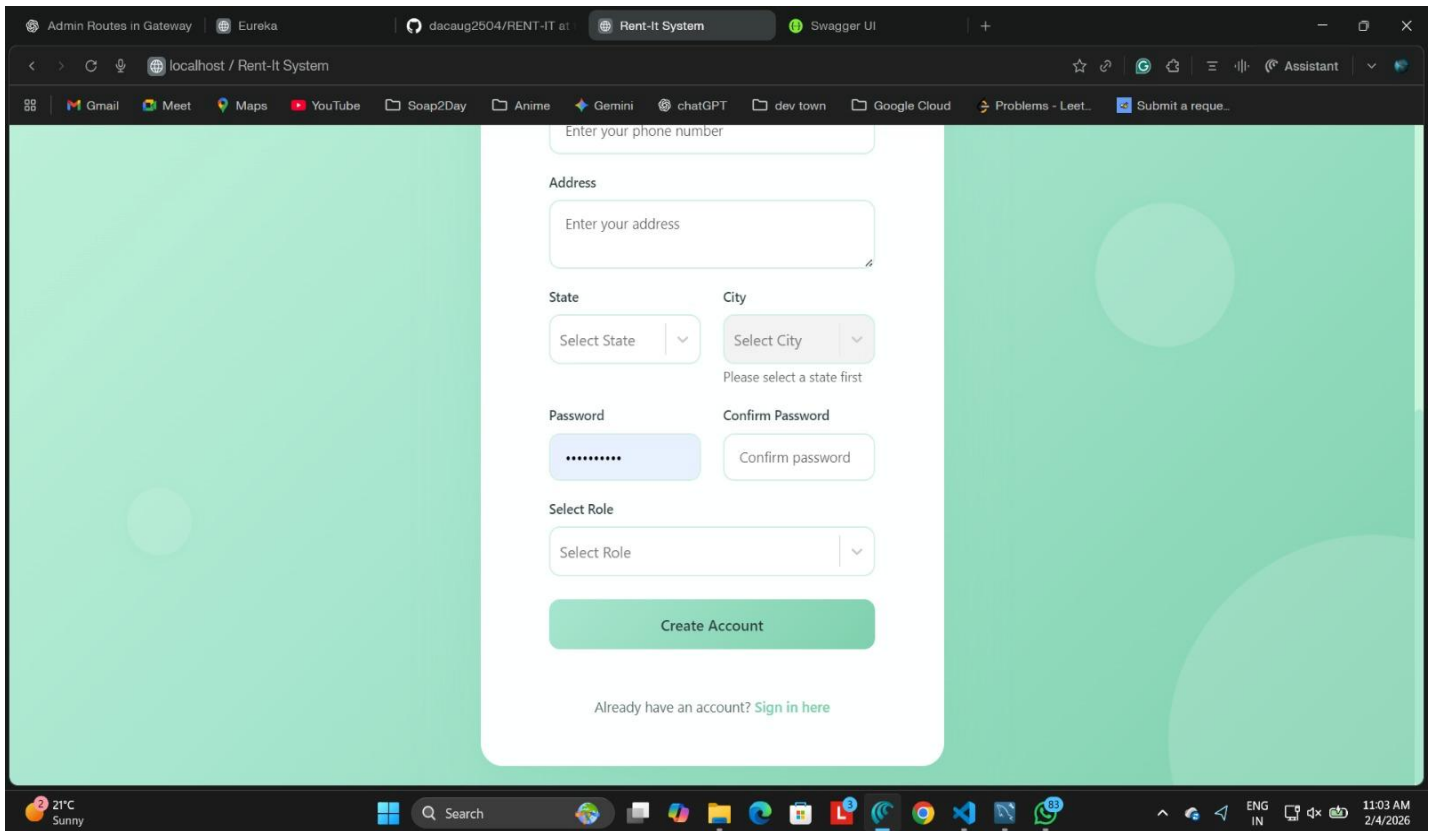
## 9.3 Registration page



The screenshot shows a web browser window with the URL `localhost / Rent-It System`. The page has a green background with a white central form area. The form is titled "RENT-IT" with a small house icon above it and the text "Join us today" below it. The form fields are as follows:

- First Name**: A text input field with the placeholder "First name".
- Last Name (Optional)**: A text input field with the placeholder "Last name".
- Email Address**: A text input field containing the email `admin1@gmail.com`.
- Phone Number**: A text input field with the placeholder "Enter your phone number".
- Address**: A text input field with the placeholder "Enter your address".

The browser's taskbar at the bottom shows the system time as 11:02 AM on 2/4/2026, with a weather widget indicating 21°C and Sunny.

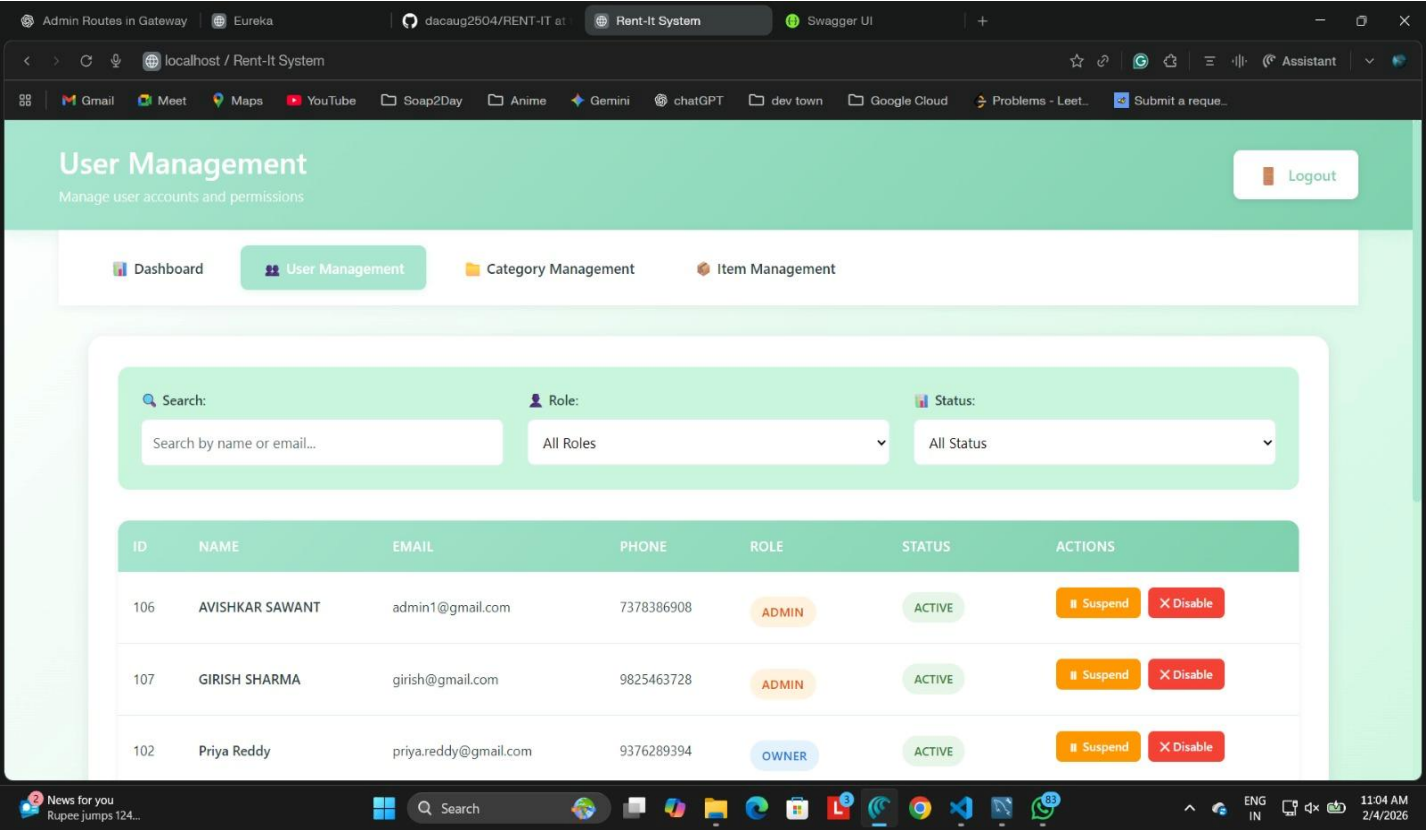
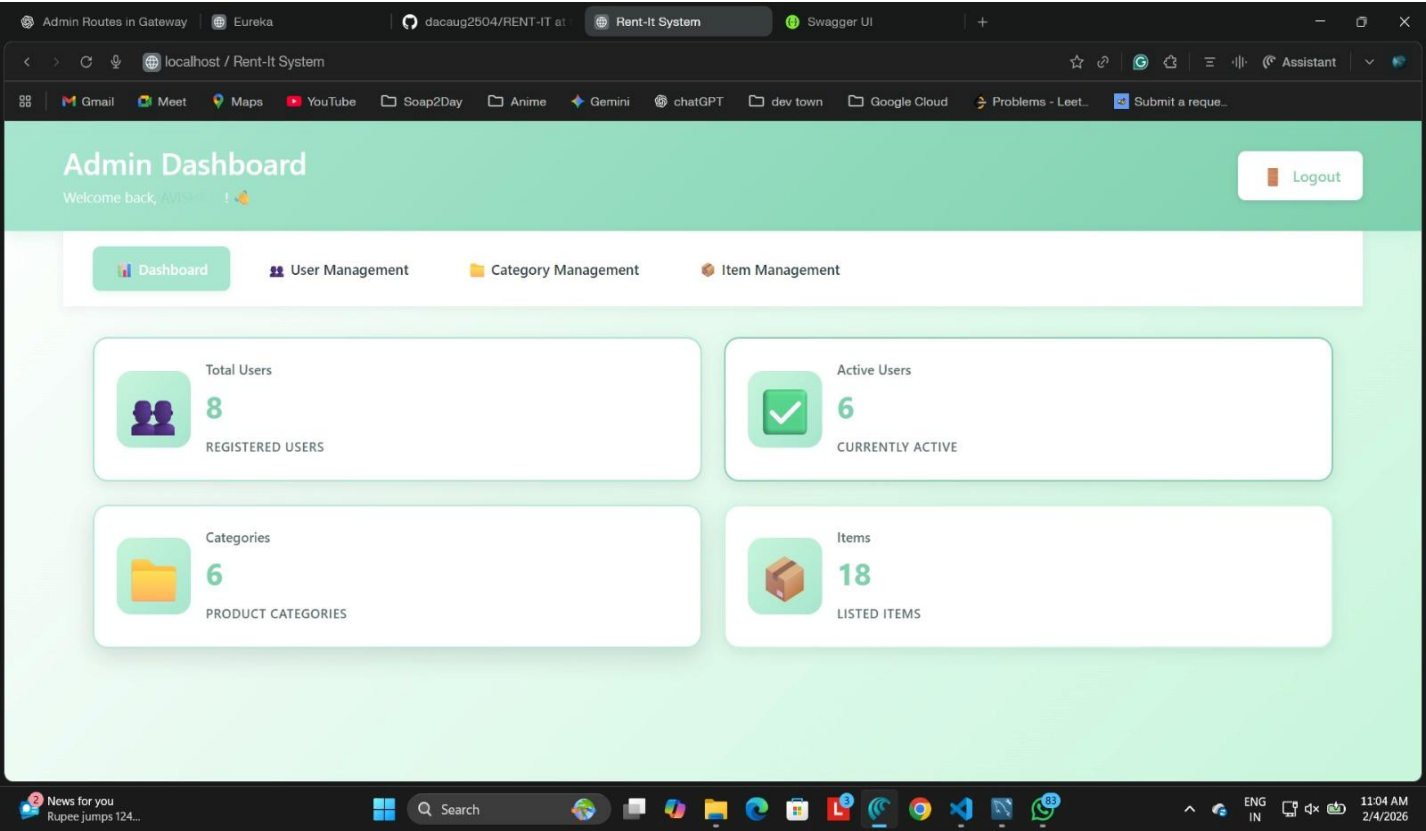


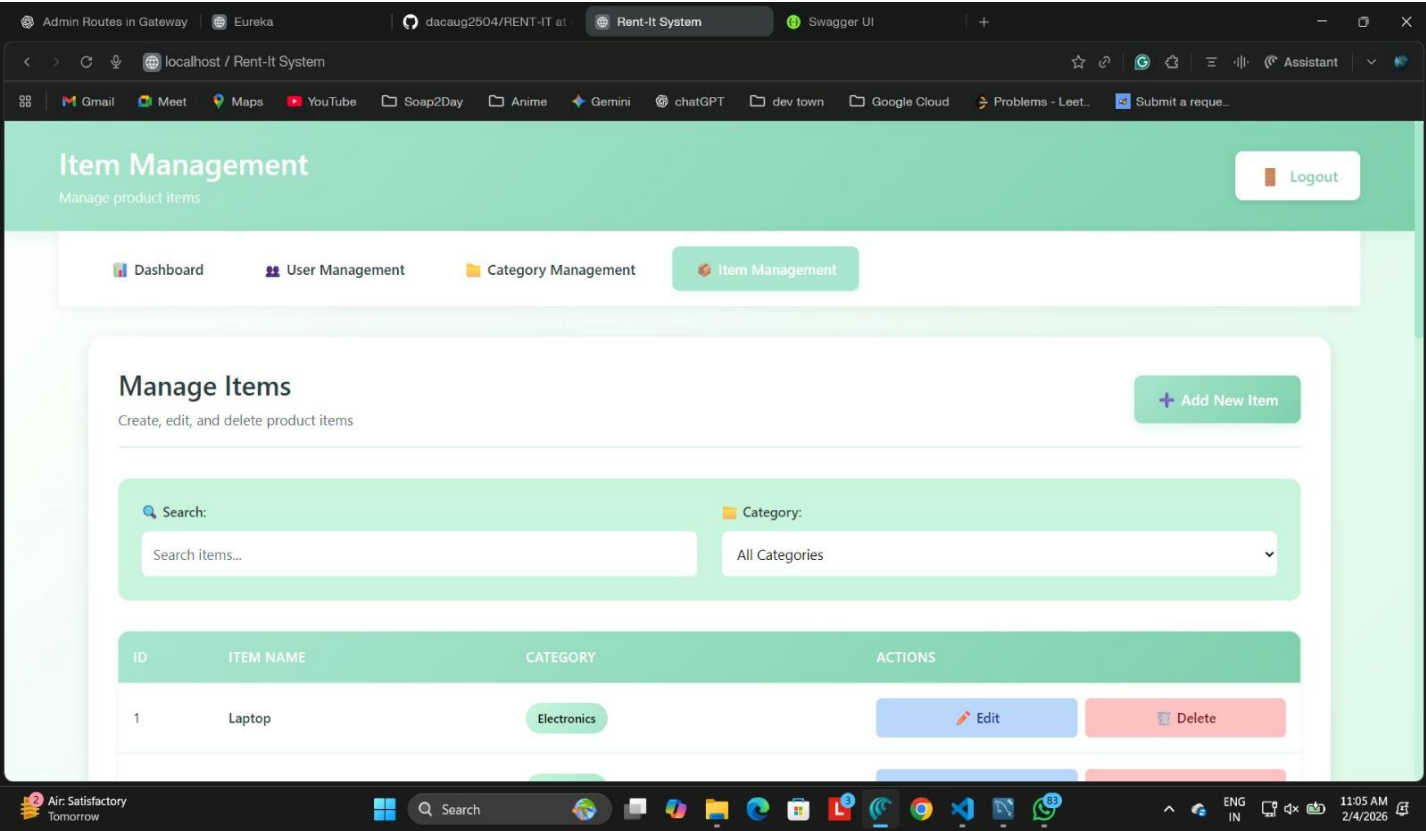
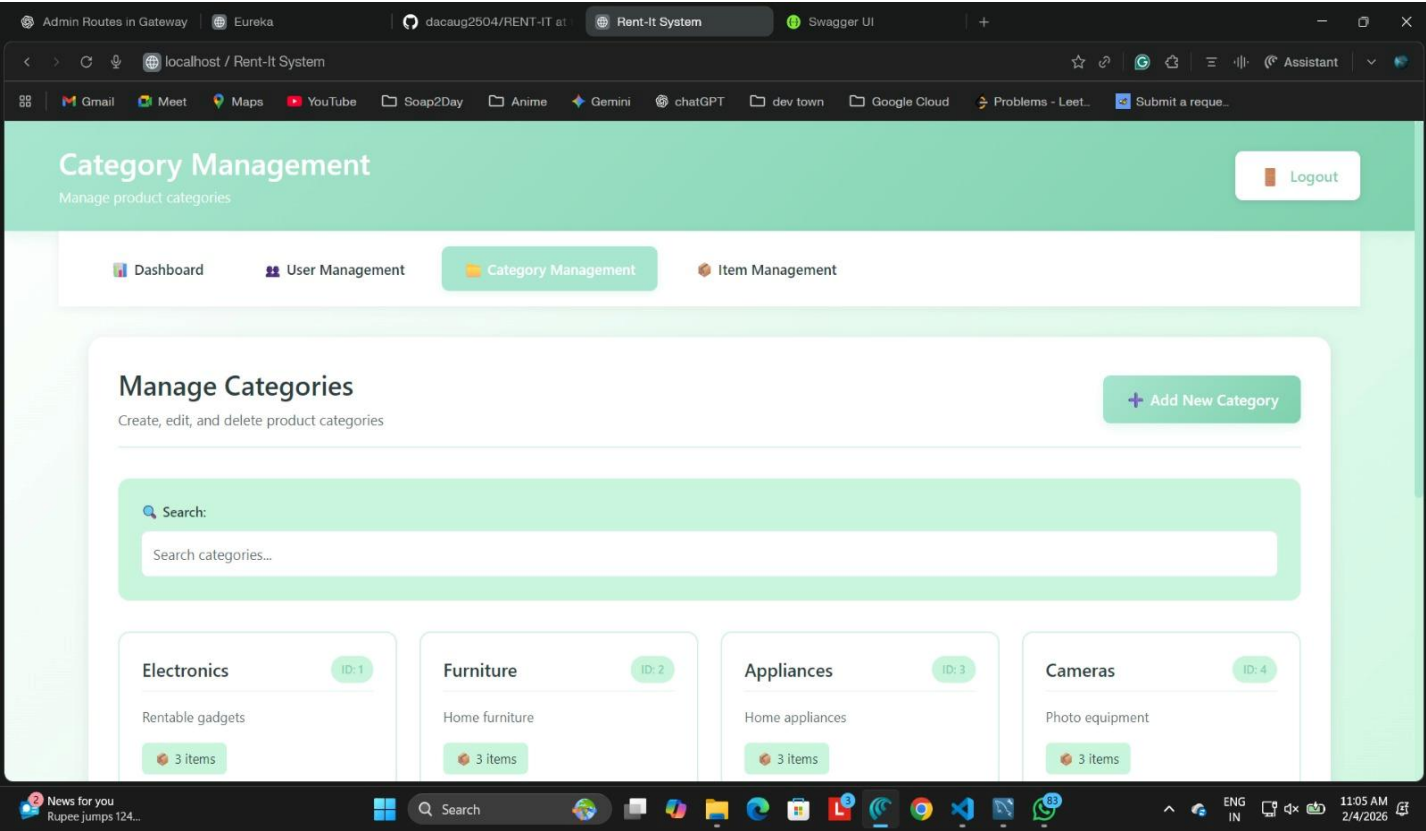
This screenshot shows the continuation of the registration form. The fields visible are:

- Address**: A text input field with the placeholder "Enter your address".
- State**: A dropdown menu with the text "Select State".
- City**: A dropdown menu with the text "Select City". Below it, a message says "Please select a state first".
- Password**: A text input field with masked characters (dots).
- Confirm Password**: A text input field with the placeholder "Confirm password".
- Select Role**: A dropdown menu with the text "Select Role".

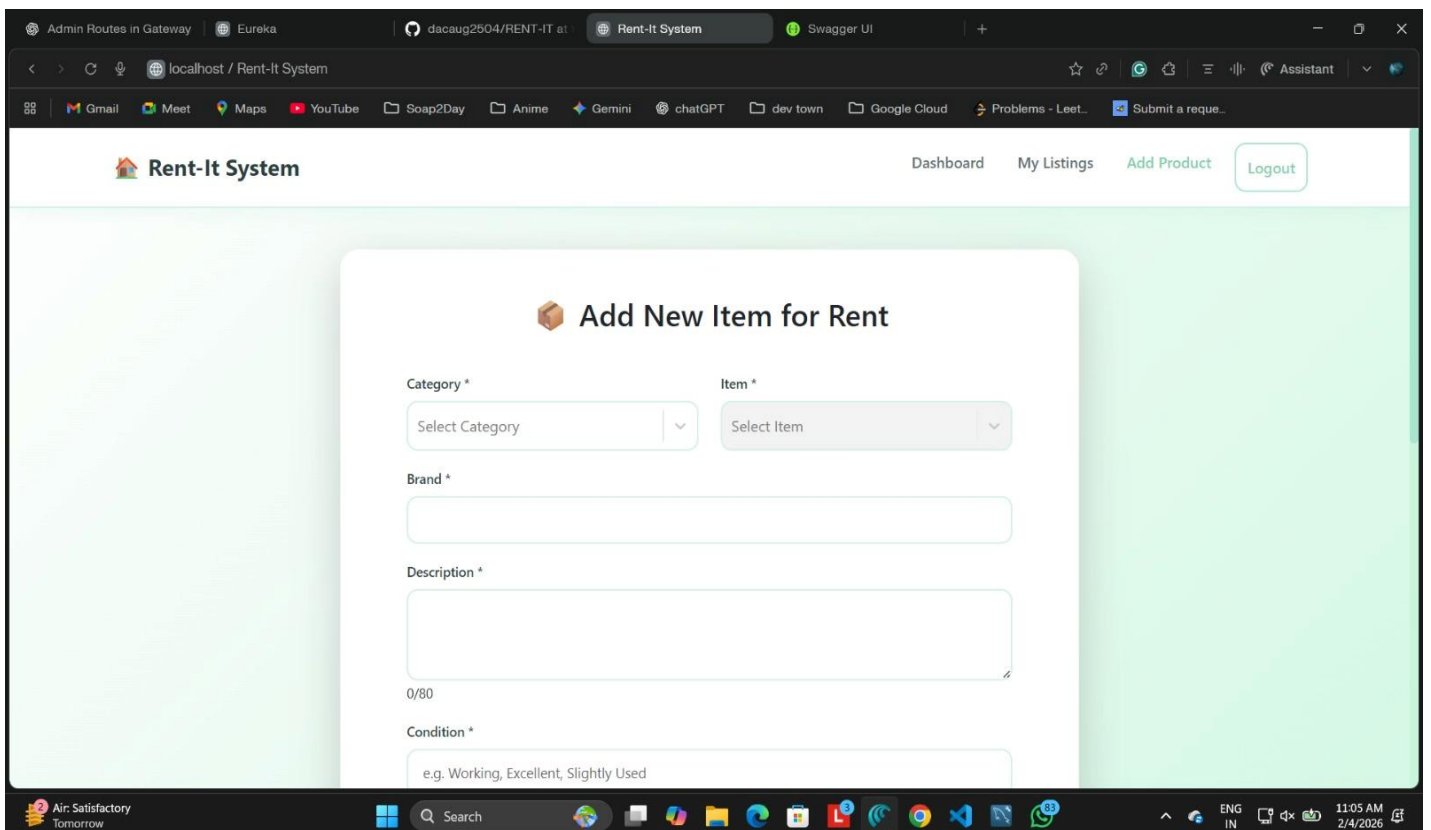
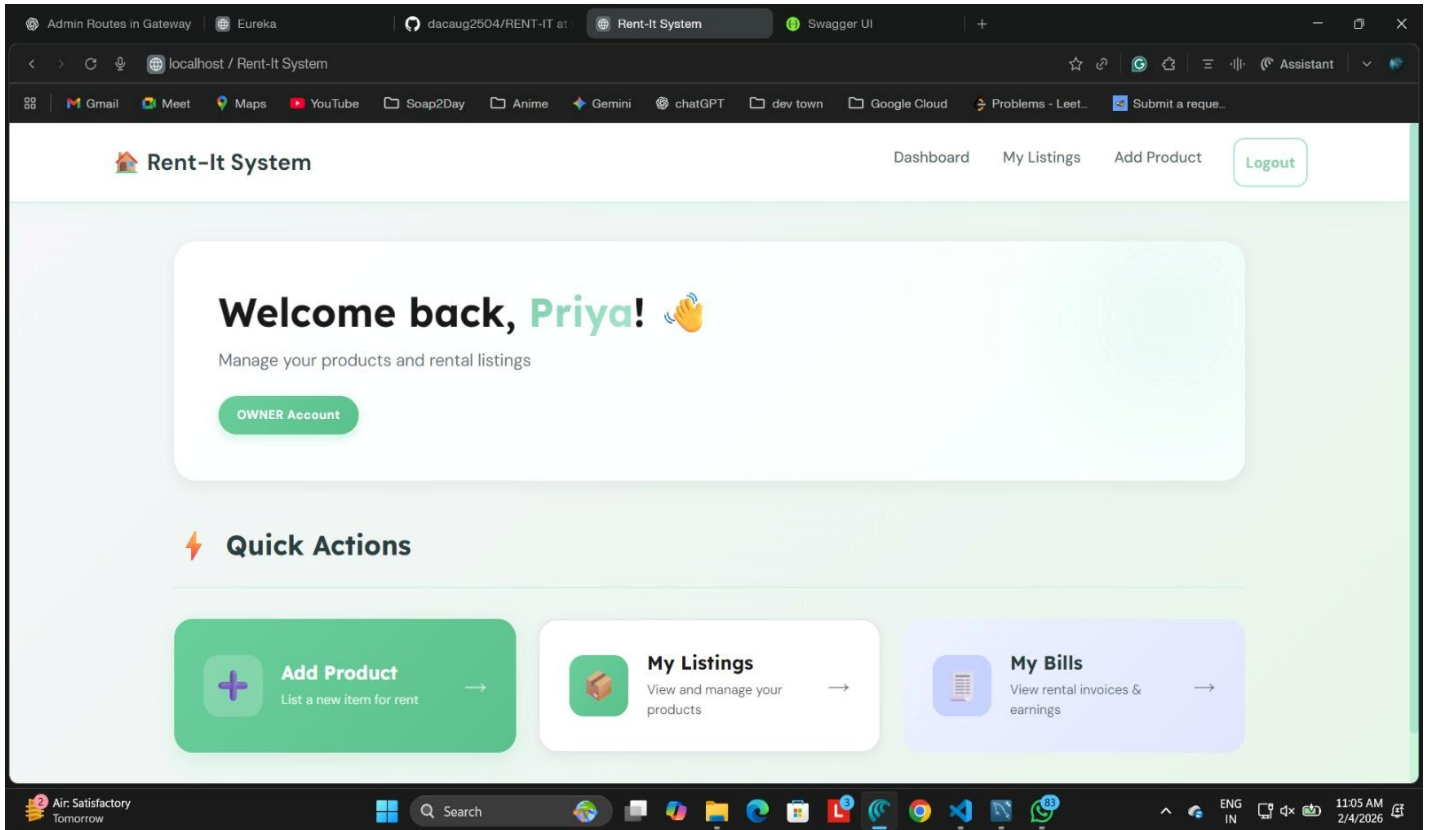
At the bottom of the form is a green button labeled "Create Account". Below the button, there is a link: "Already have an account? [Sign in here](#)". The browser's taskbar at the bottom shows the system time as 11:03 AM on 2/4/2026, with a weather widget indicating 21°C and Sunny.

9.4Admin Dashboard :





## 9.4 Customer Dashboard



Admin Routes in Gateway | Eureka | dcaug2504/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...

e.g. Working, Excellent, Slightly Used  
Max 50 characters

Product Images (optional)

No Image No Image No Image

Choose File N...n Choose File N...n Choose File N...n

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

Rent Per Day (₹) \* Security Deposit (₹) \* Max Rent Days \*

e.g. 150 e.g. 2000 e.g. 30

Maximum number of days this item can be rented

Add Item

Air: Satisfactory Tomorrow

Search

ENG IN 11:05 AM 2/4/2026

Admin Routes in Gateway | Eureka | dcaug2504/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...

**Rent-It System** Dashboard My Listings Logout

**My Products**  
Manage your rental products + Add New Product

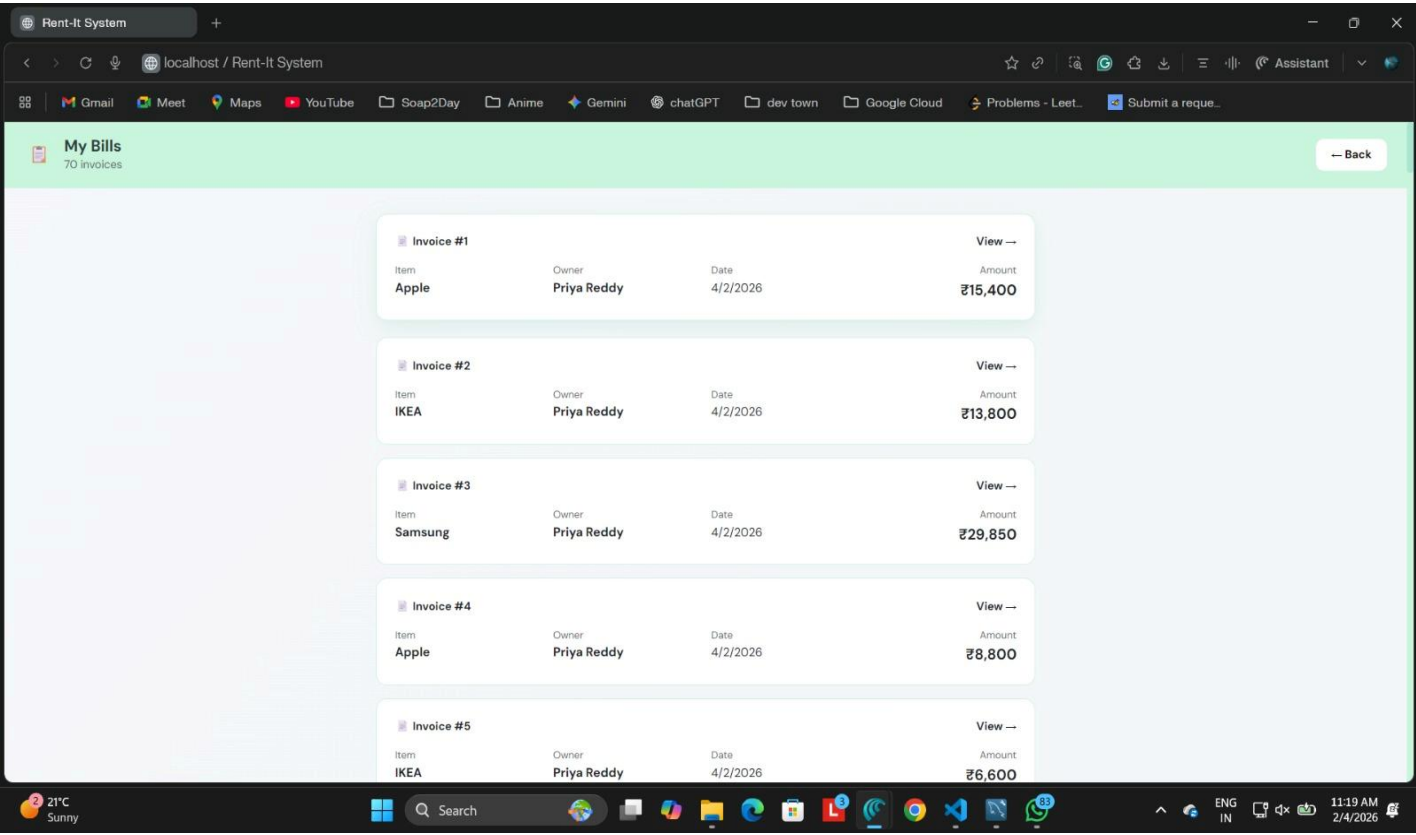
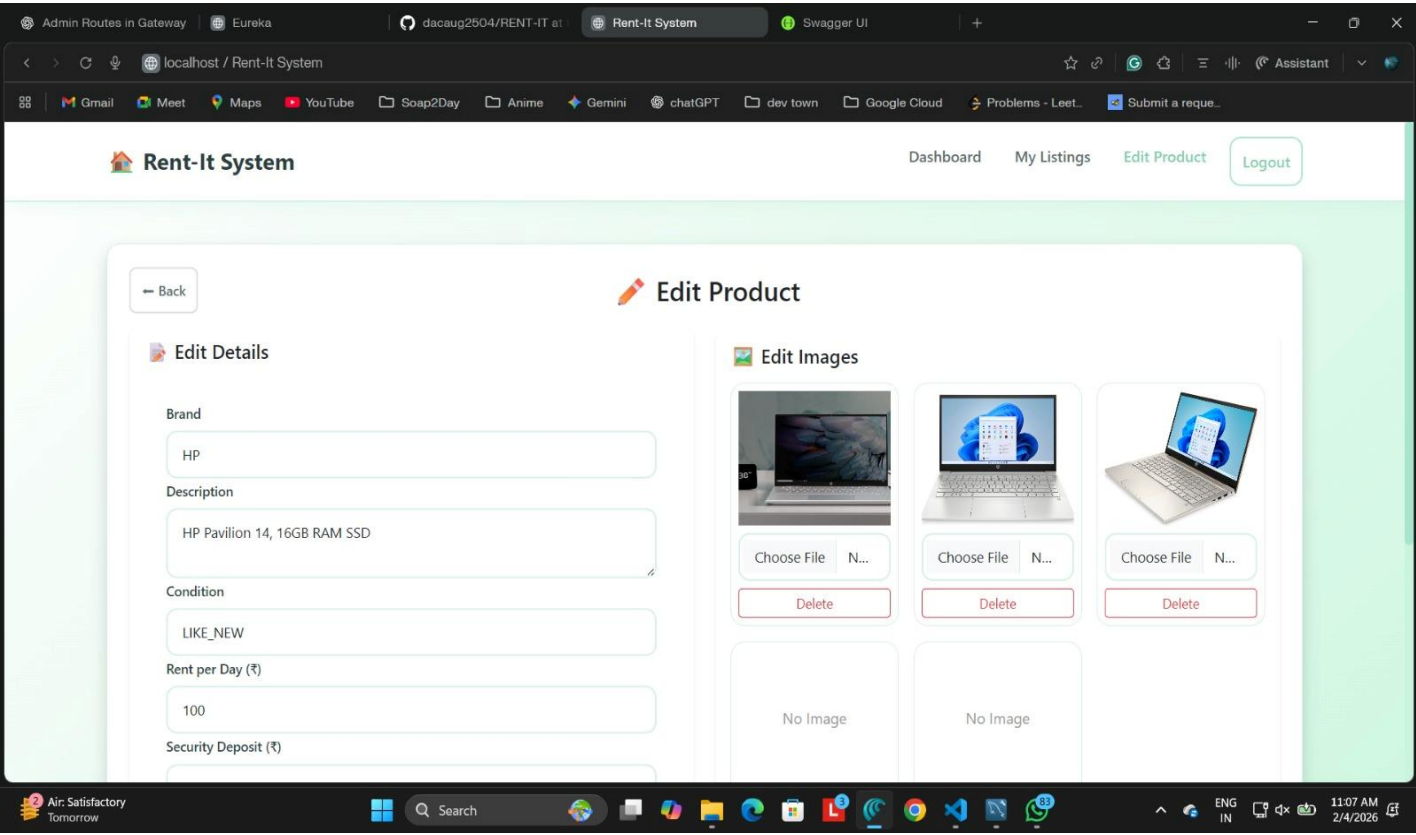
<b>Laptop</b> <span>✓ Available</span> <b>Brand:</b> HP <b>Category:</b> Electronics HP Pavilion 14, 16GB RAM SSD <b>Rent/Day:</b> ₹100 <b>Deposit:</b> ₹0 <b>Condition:</b> Like New <span>Edit</span> <span>Delete</span>	<b>Tablet</b> <span>✗ Not Available</span> <b>Brand:</b> Apple <b>Category:</b> Electronics iPad 9th Gen 64GB <b>Rent/Day:</b> ₹600 <b>Deposit:</b> ₹4000 <b>Condition:</b> Excellent <span>Edit</span> <span>Delete</span>	<b>Gaming Console</b> <span>✓ Available</span> <b>Brand:</b> Sony <b>Category:</b> Electronics PlayStation 5 with 2 controllers <b>Rent/Day:</b> ₹100 <b>Deposit:</b> ₹7000 <b>Condition:</b> Like New <span>Edit</span> <span>Delete</span>
<b>Sofa Set</b> <span>✓ Available</span> <b>Brand:</b> IKEA	<b>Bed Frame</b> <span>✗ Not Available</span> <b>Brand:</b> Wakefit	<b>Dining Table</b> <span>✗ Not Available</span> <b>Brand:</b> Nilkamal

Air: Satisfactory Tomorrow

Search

ENG IN 11:06 AM 2/4/2026





Admin Routes in GatewayEureka

dacaug2504/RENT-IT atRent-It SystemSwagger UI

localhost / Rent-It System

GmailMeetMapsYouTubeSoap2DayAnimeGeminichatGPTdev townGoogle CloudProblems - Leet...Submit a reque...

My Bills

Back

Rental Income

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

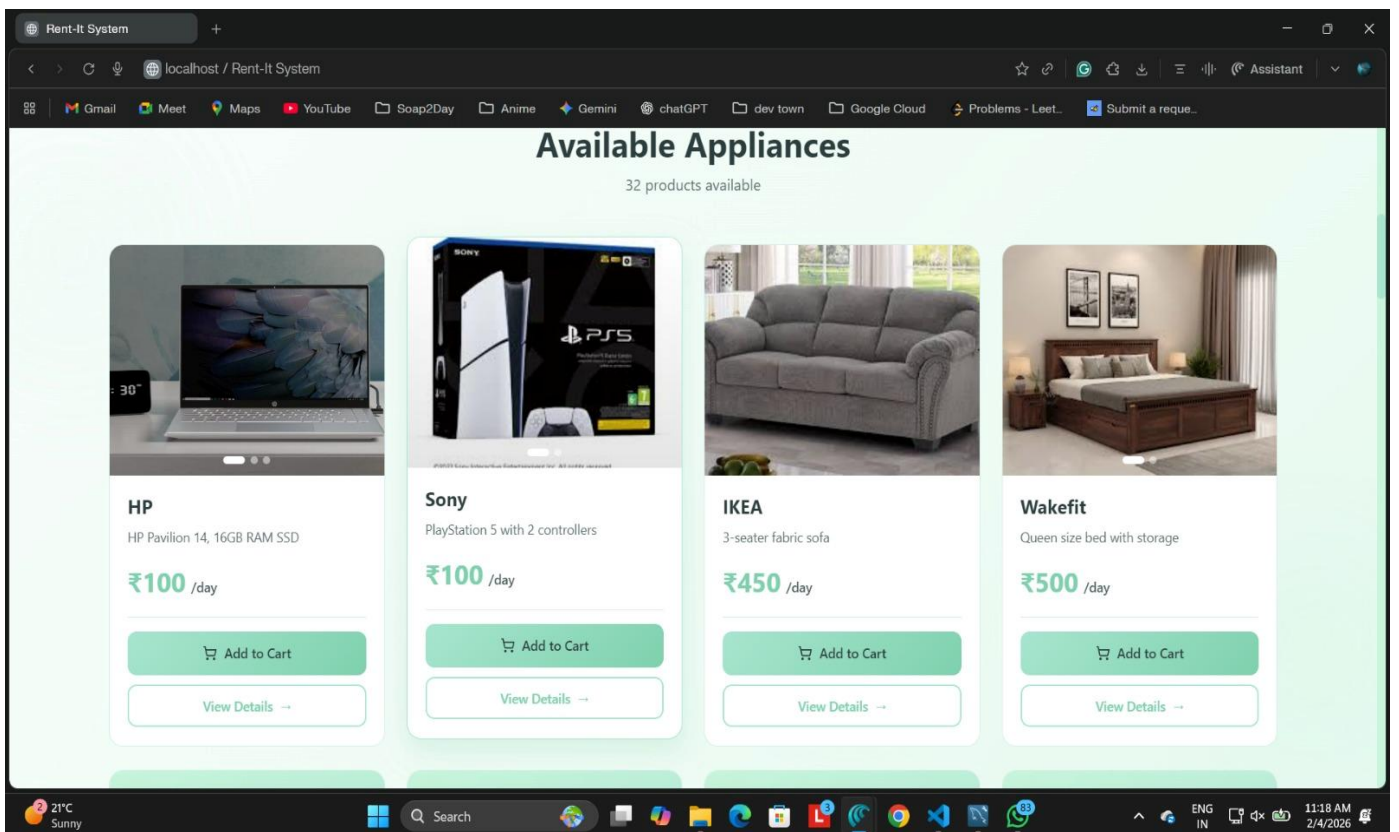
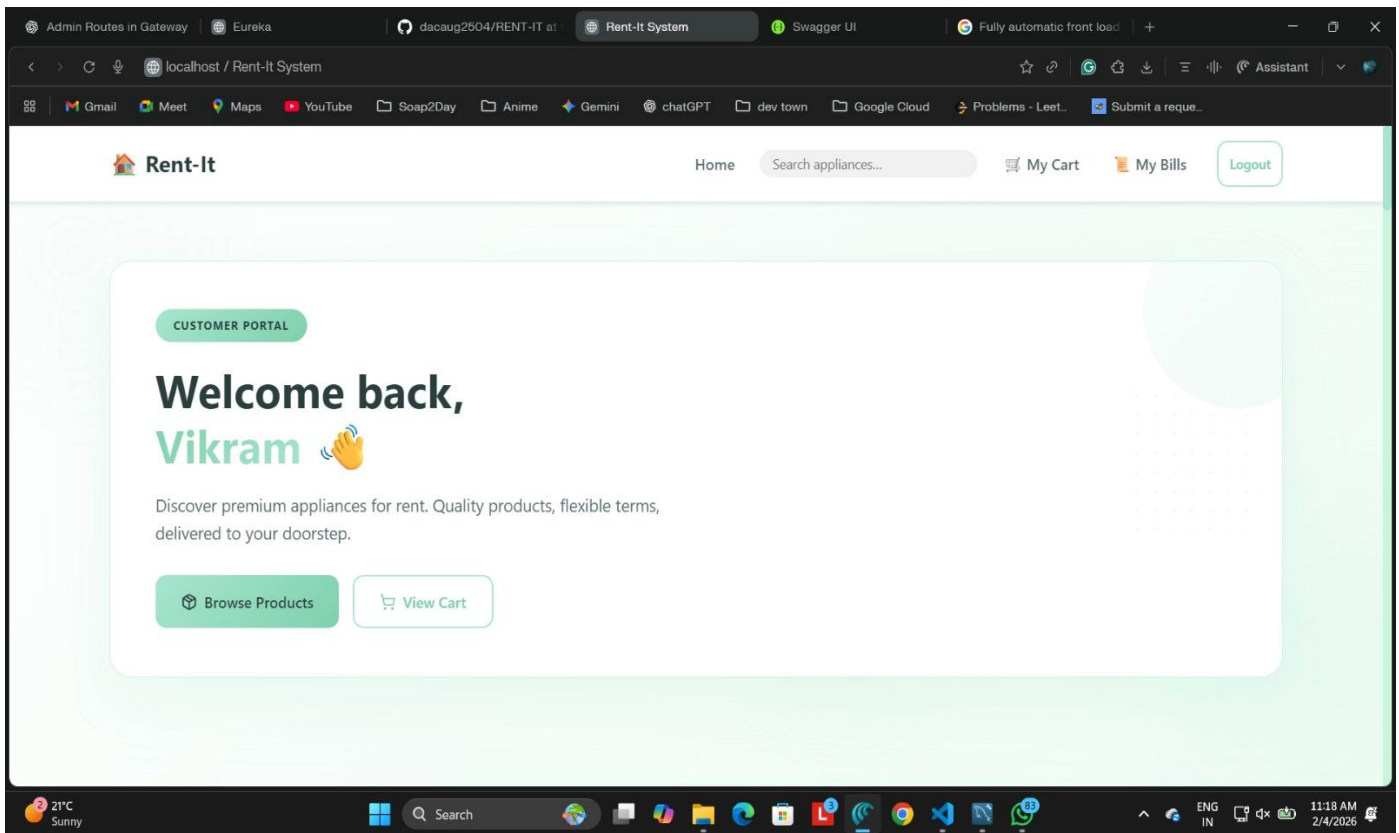
Air: Satisfactory Tomorrow

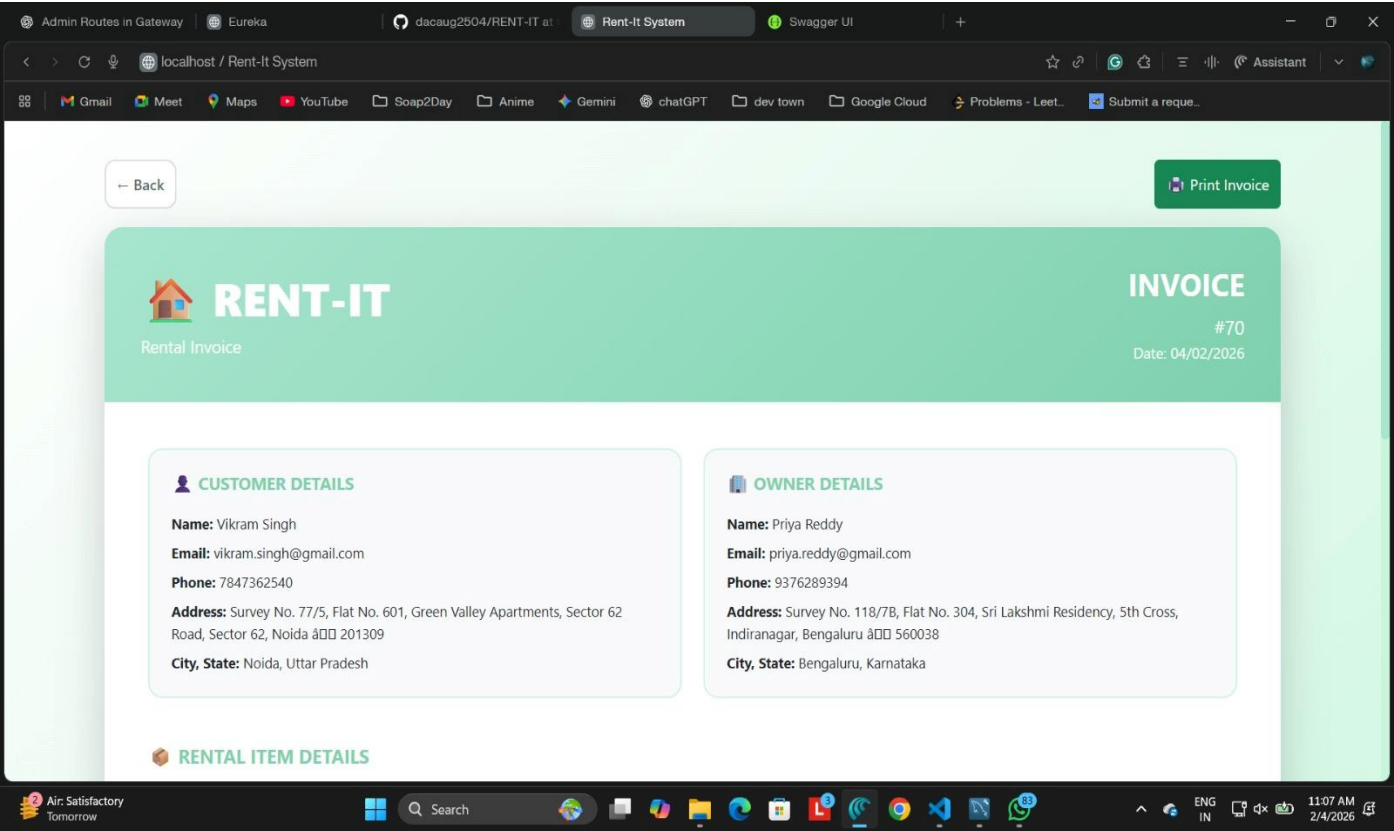
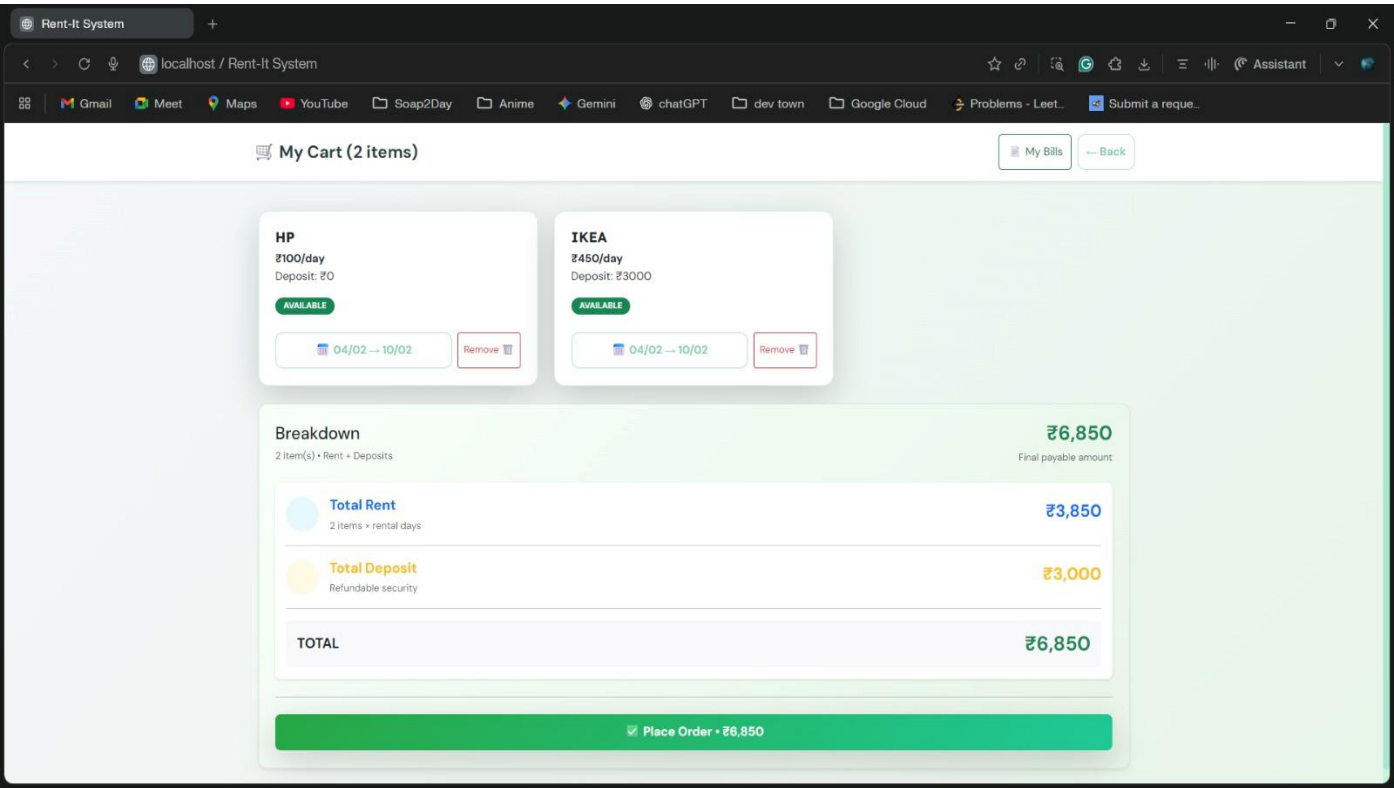
Search

ENG IN11:07 AM2/4/2026



## 9.5 Customer Dashboard





## **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.