



UE20CS352 : OOAD PROJECT REPORT

PROPERTY RENTAL SYSTEM

520_524_540_553

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Name: Property Management	Team : 520_524_540_553	Section: I
	Date: 27/04/2023	Final Project

Report document

1. Problem statement

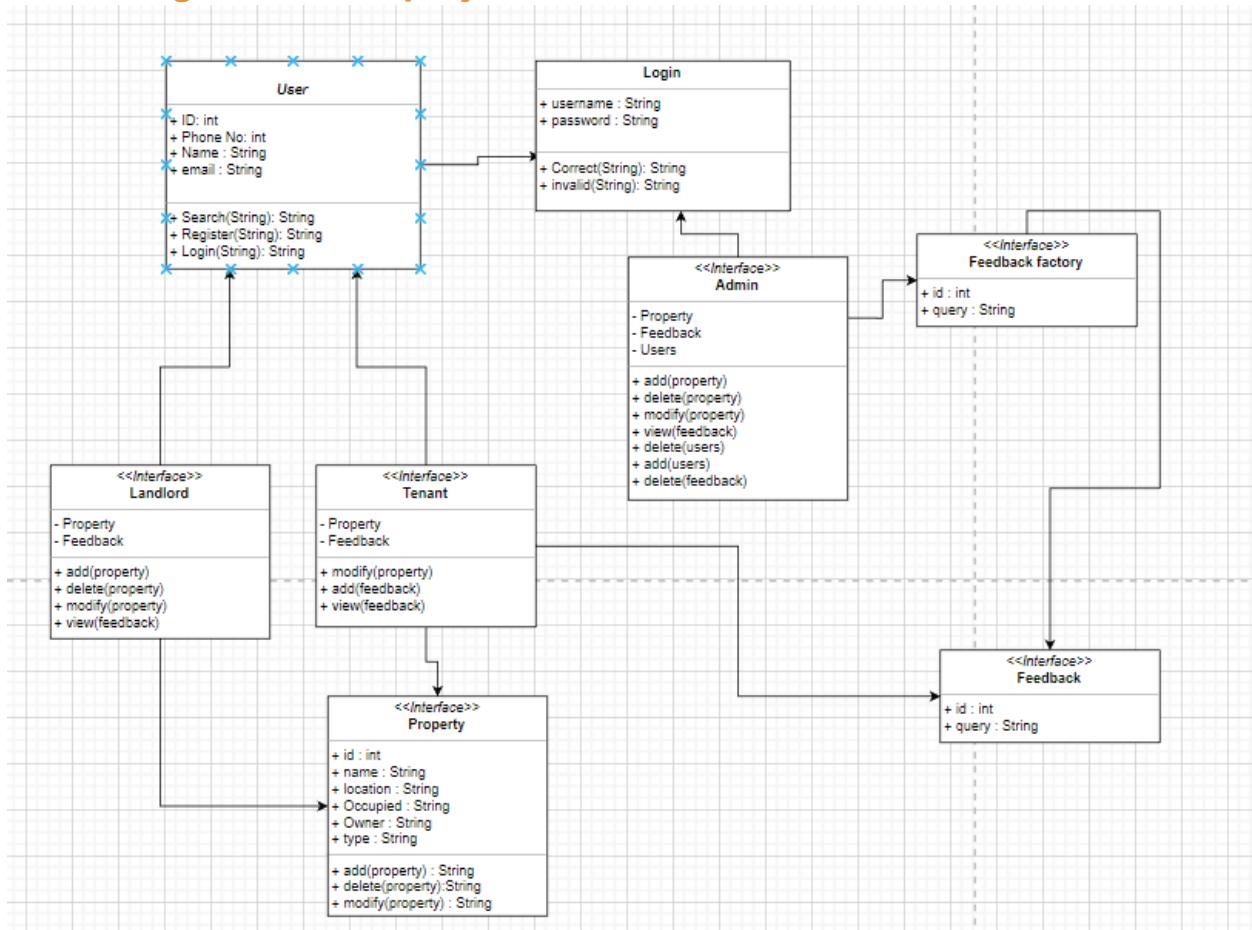
Building a Property Rental Application using the principles of design of OOAD and also making it available to 3 different clusters of users for making the app for user centric and easy to interact with.

2. Models

Home Rental System



3. Class Diagram for our project :



4. Architecture Patterns, Design Principles and Design Patterns used along with a short description which elaborated how that is applied to your problem domain

When designing a Property Management System (PMS) using the Model-View-Controller (MVC) architecture in Object-Oriented Analysis and Design (OOAD), there are several design principles and design patterns to consider. Here are some suggestions:

1. Separation of Concerns:

The MVC architecture separates the application into three components, each with its own responsibility. The Model represents the data and business logic, the View represents the user interface, and the Controller mediates between the Model and View. This separation of concerns allows for easier maintenance and modification of each component.

2. Single Responsibility Principle:

Each class should have only one responsibility. For example, the Model should be responsible for managing the data and business logic, while the View should be responsible for displaying information to the user.

3. Factory Pattern:

The Feed class has a static nested class called FeedFactory that implements the factory method design pattern. The FeedFactory class has a public static method called createFeed that takes in id and query parameters and returns a new instance of the Feed class with the specified parameters.

The createFeed method encapsulates the creation of Feed objects and hides the complexity of object instantiation from the client code. The client code can create new Feed objects using the factory method like this:

The factory method creates new instances of Feed objects with the specified id and query parameters. The Feed class can contain additional logic for handling the creation of Feed objects, such as validating input parameters, setting default values, or accessing a database.

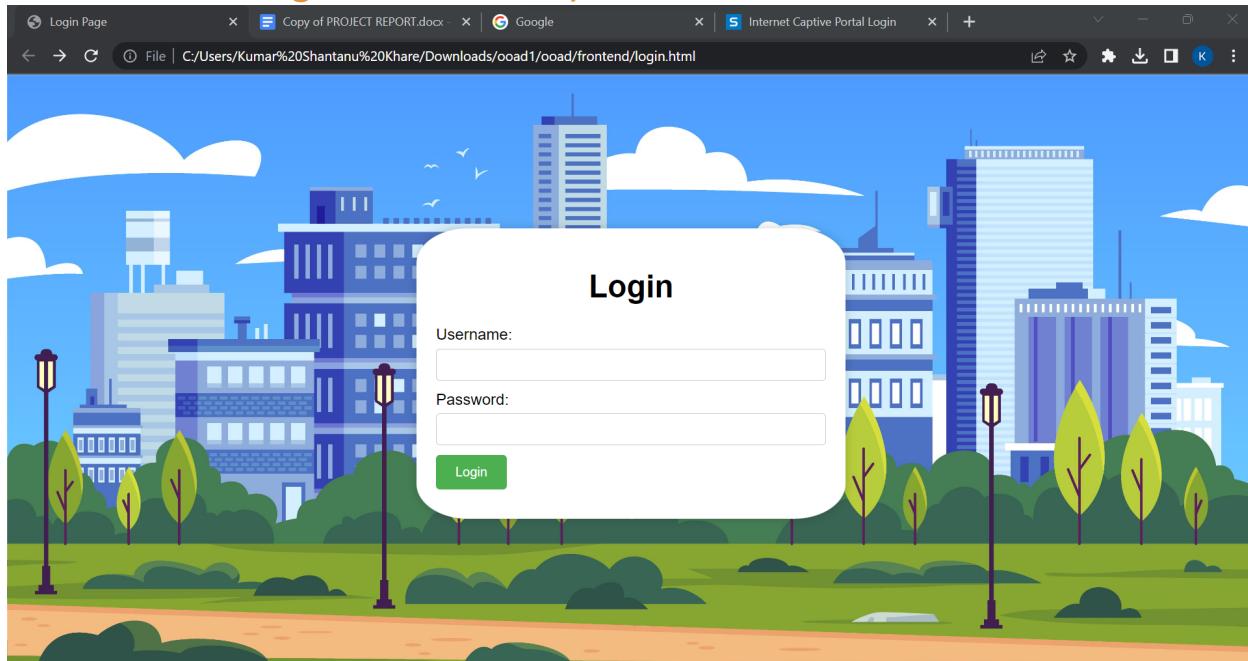
By using the factory method design pattern, you can separate the object creation logic from the client code and provide a centralized location for creating new instances of Feed objects. This can help simplify the code and make it more maintainable in the long run.

These are just a few of the design principles and design patterns that can be applied when designing a PMS using MVC in OOAD. The specific patterns and principles used will depend on the specific requirements and constraints of the system being developed.

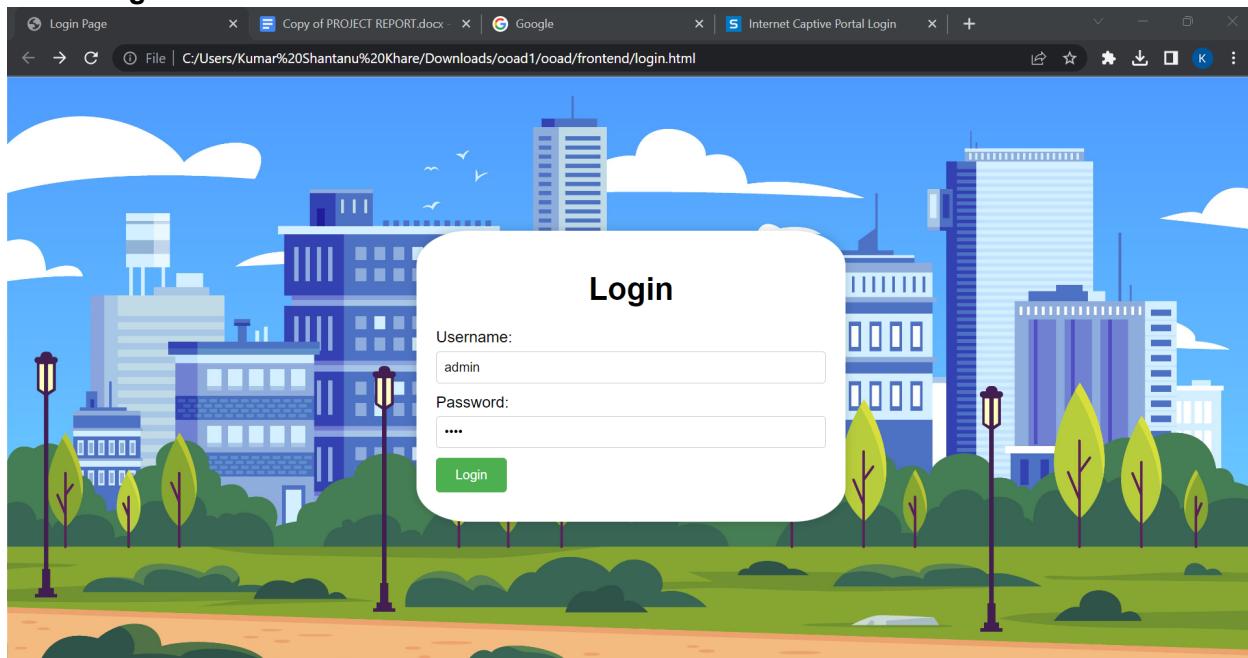
5. Github link to the Code base (Repository should be public and accessible to all)

<https://github.com/sruju003/PropertyManagement>

6. Screenshots with input values populated and output shown (Use white background screens)



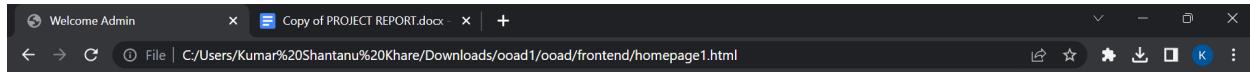
Admin login





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Welcome Admin

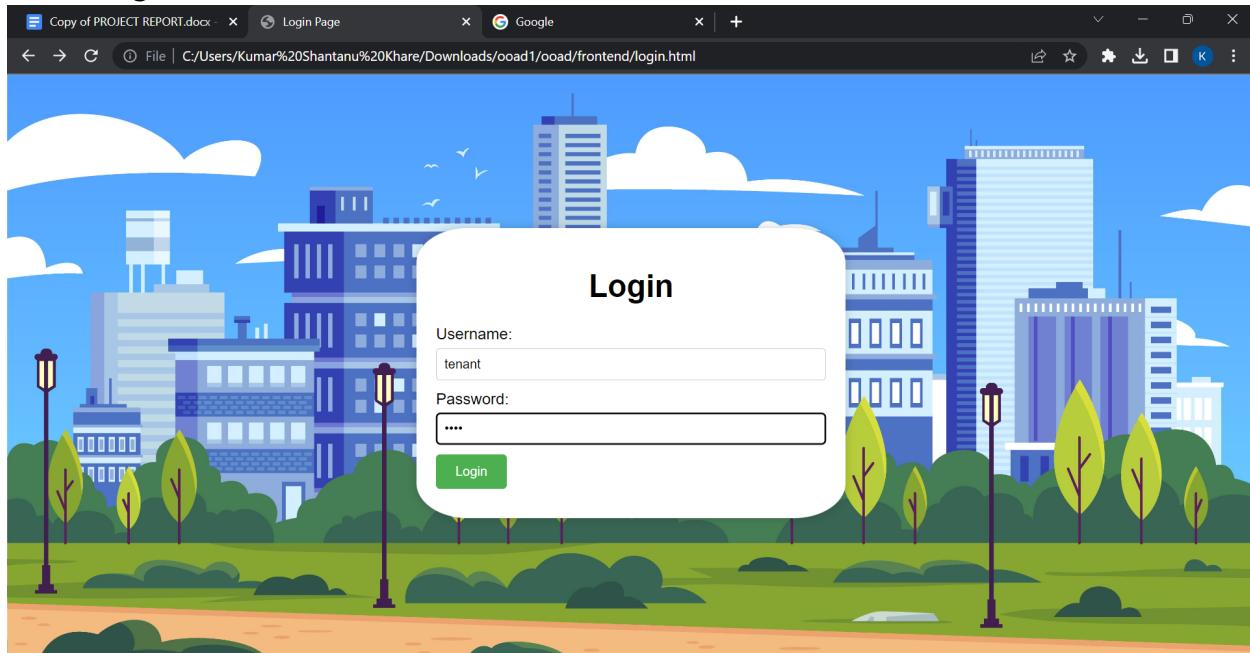
[View Users](#)

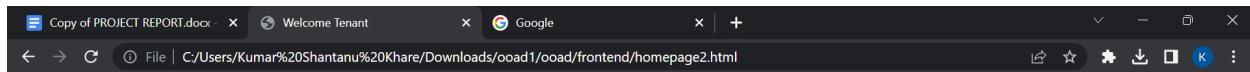
[View Properties](#)

[View Feedback](#)



Tenant login



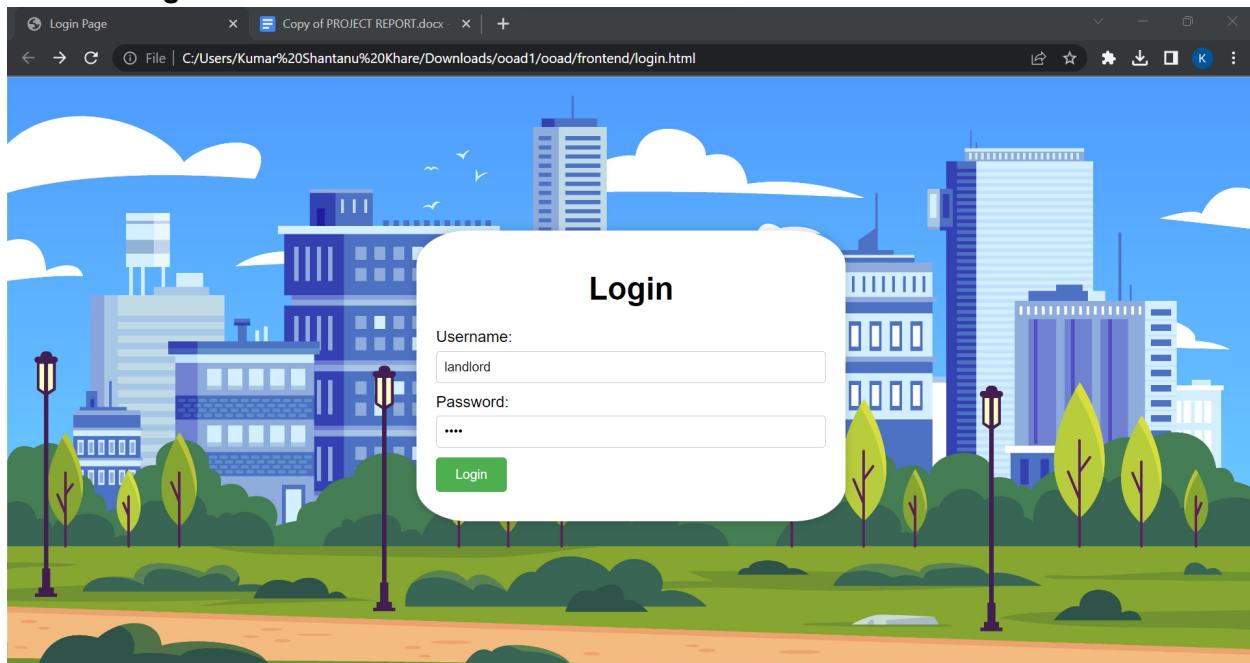


Welcome Tenant

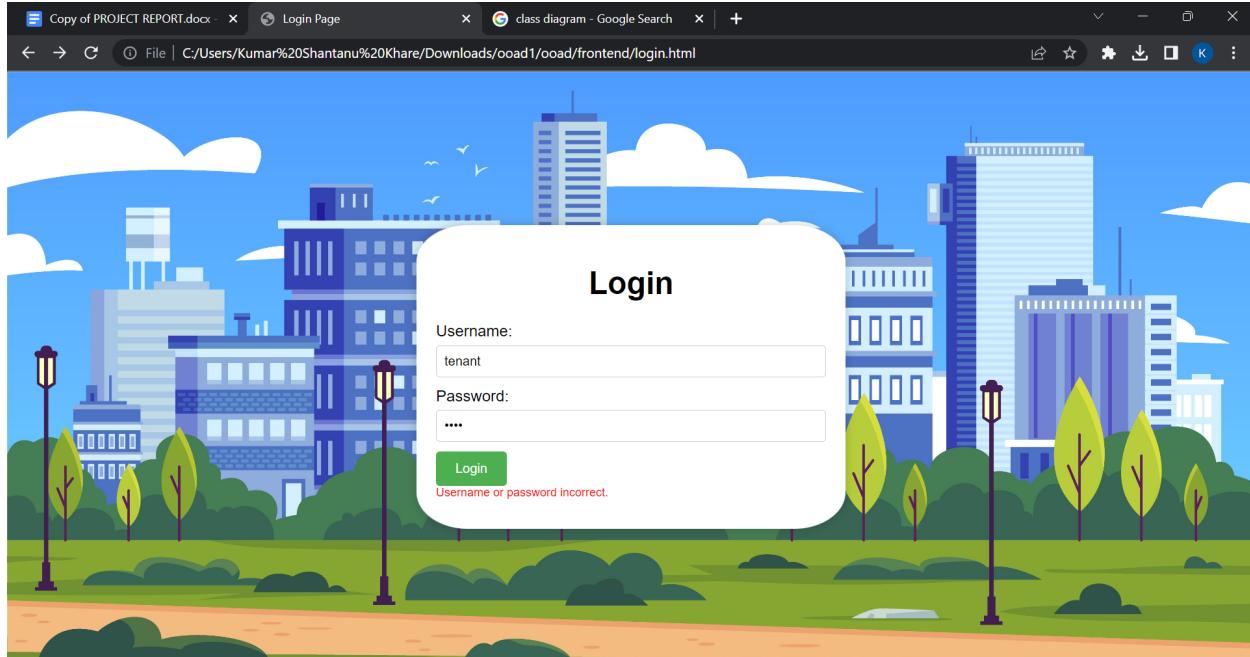
[Properties](#) [Feedback](#)



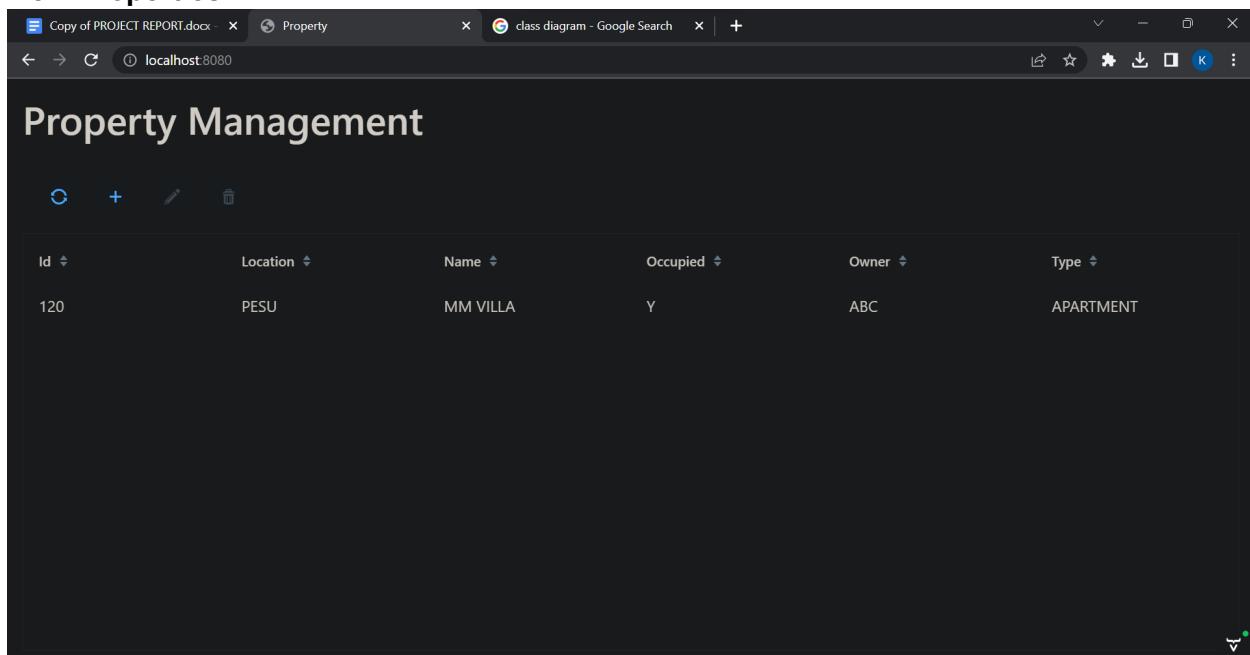
Landlord login



Login Failure



Admin : View Properties :



A screenshot of a web browser window titled 'Property Management' showing a table of property records. The table has columns: Id, Location, Name, Occupied, Owner, and Type. One row is visible with the following data: Id 120, Location PESU, Name MM VILLA, Occupied Y, Owner ABC, and Type APARTMENT. The browser tabs at the top show 'Copy of PROJECT REPORT.docx', 'Property', and 'class diagram - Google Search'.

Id	Location	Name	Occupied	Owner	Type
120	PESU	MM VILLA	Y	ABC	APARTMENT



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View Users :

A screenshot of a web browser window titled "User Management". The page has a dark background with white text. At the top, there are four columns labeled "Email", "Id", "Name", and "Pno". Below these labels, there is one row of data: "pyuki3402@gmail.com", "0", "yuktha", and "56". At the bottom left, there are four small icons: a circular arrow, a plus sign, a pencil, and a trash can. The browser's address bar shows "localhost:8445".

View Feedback :

A screenshot of a web browser window titled "Feedback Management". The page has a dark background with white text. At the top, there are two columns labeled "Id" and "Query". Below these labels, there is one row of data: "1" and "I like the house it is very big". At the bottom left, there are four small icons: a circular arrow, a plus sign, a pencil, and a trash can. The browser's address bar shows "localhost:8445".



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Landlord : View Properties:

A screenshot of a web browser window titled "Property Management". The browser has three tabs open: "Copy of PROJECT REPORT.docx", "Property", and "class diagram - Google Search". The "Property" tab is active and shows a table with the following data:

Property Management					
Id	Location	Name	Occupied	Owner	Type
120	PESU	MM VILLA	Y	ABC	APARTMENT

View Feedback :

A screenshot of a web browser window titled "Feedback Management". The browser has three tabs open: "Copy of PROJECT REPORT.docx", "Feedback", and "class diagram - Google Search". The "Feedback" tab is active and shows a table with the following data:

Feedback Management					
Id	Query				
1	I like the house it is very big				



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Tenant :

View Feedback:

The screenshot shows a web browser window with three tabs: 'Copy of PROJECT REPORT.docx', 'Feedback', and 'class diagram - Google Search'. The main content area is titled 'Feedback Management' and displays a table of feedback entries. The columns are 'Id' and 'Query'. The data is as follows:

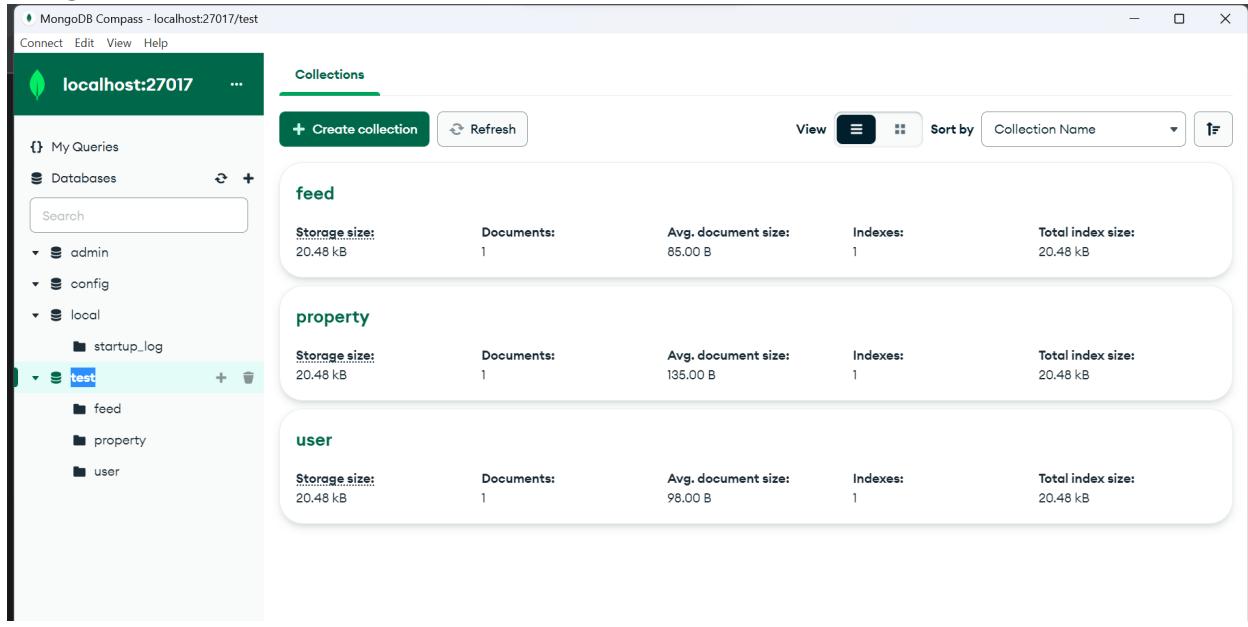
Id	Query
1	I like the house it is very big

View Properties:

The screenshot shows a web browser window with three tabs: 'Copy of PROJECT REPORT.docx', 'Property', and 'class diagram - Google Search'. The main content area is titled 'Property Management' and displays a table of property details. The columns are 'Id', 'Location', 'Name', 'Occupied', 'Owner', and 'Type'. The data is as follows:

Id	Location	Name	Occupied	Owner	Type
120	PESU	MM VILLA	Y	ABC	APARTMENT

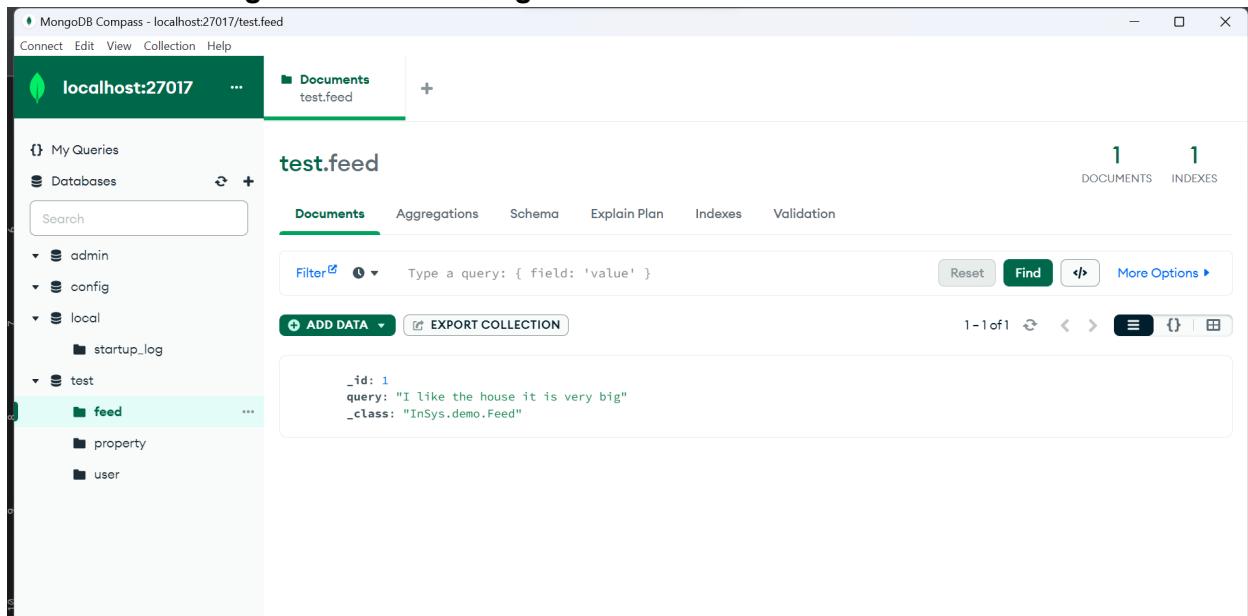
Mongodb database created :



The screenshot shows the MongoDB Compass interface connected to the 'test' database. It displays three collections: 'feed', 'property', and 'user'. Each collection has the following statistics:

Collection	Storage size	Documents	Avg. document size	Indexes	Total index size
feed	20.48 kB	1	85.00 B	1	20.48 kB
property	20.48 kB	1	135.00 B	1	20.48 kB
user	20.48 kB	1	98.00 B	1	20.48 kB

All values in mongodb after executing frontend:



The screenshot shows the MongoDB Compass interface connected to the 'test.feed' collection. It displays one document with the following data:

```

_id: 1
query: "I like the house it is very big"
_class: "InSys.demo.Feed"

```



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MongoDB Compass - localhost:27017/test.property

Connect Edit View Collection Help

localhost:27017 ...

Documents test.property +

My Queries Databases Search

test.property

1 1 DOCUMENTS INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' }

Find More Options

ADD DATA EXPORT COLLECTION

1-1 of 1

`_id: 120
name: "MM VILLA"
location: "PESU"
owner: "ABC"
type: "APARTMENT"
occupied: "Y"
_class: "InSys.demo.Property"`

EDIT FAVORITES TRASH

MongoDB Compass - localhost:27017/test.user

Connect Edit View Collection Help

localhost:27017 ...

Documents test.user +

My Queries Databases Search

test.user

1 1 DOCUMENTS INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' }

Find More Options

ADD DATA EXPORT COLLECTION

1-1 of 1

`_id: 0
name: "yuktha"
pno: "56"
email: "pyuki3402@gmail.com"
_class: "InSys.demo.User"`

EDIT FAVORITES TRASH



Insertion : frontend

Copy of PROJECT REPORT.docx - x Property x | diagrams.net x | + ↻ → C ⓘ localhost:8080

Property Management

Add

Id	Gokula
03	Occupied
Name	N
Srujanan	Type
Owner	Village Villain Villas
2	Villa

✓ Add Cancel

Id	Location	Name	Occupied	Owner	Type
120	PESU	MM VILLA	Y	ABC	APARTMENT
3	Gokula	Srujana	N	2	Villa

(Changed to light mode)



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backend

MongoDB Compass - localhost:27017/test.property

Connect Edit View Collection Help

localhost:27017 ...

Documents test.property

My Queries

Databases

Search

admin

config

local

startup.log

test

feed

property

user

test.property

2 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' }

Reset Find More Options

ADD DATA EXPORT COLLECTION

1 - 2 of 2

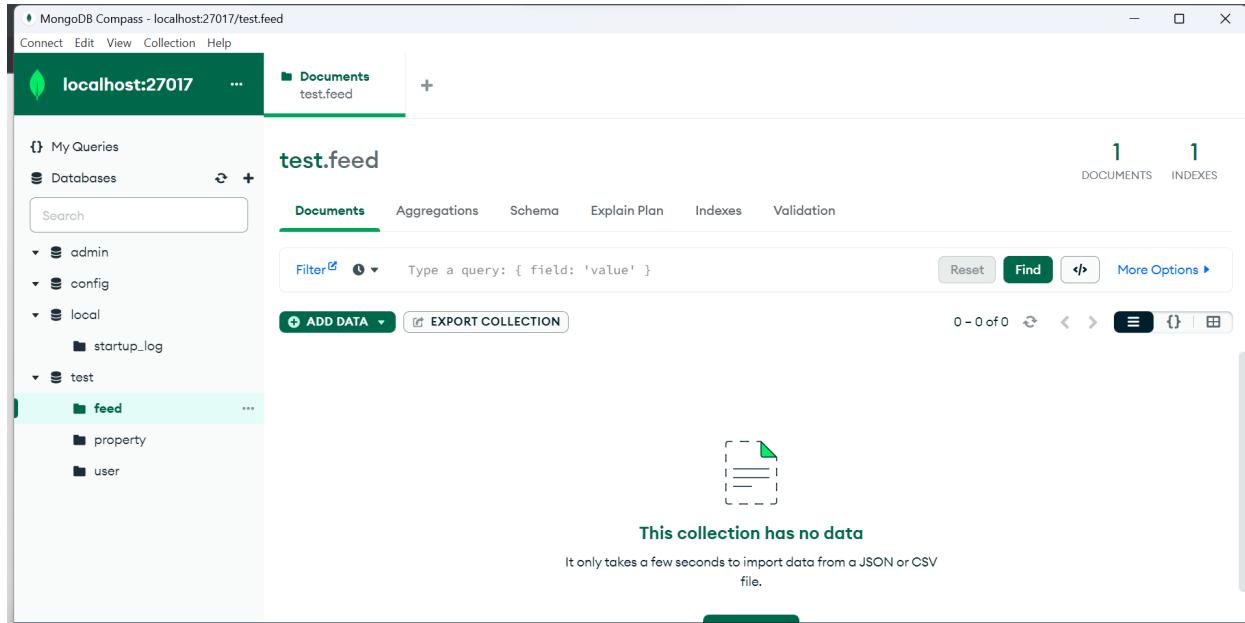
`_id: 120
name: "MM VILLA"
location: "PESU"
owner: "ABC"
type: "APARTMENT"
occupied: "Y"
_class: "InSys.demo.Property"`

`_id: 3
name: "Srujanan "
location: "Gokula"
owner: "2"
type: "Villa"
occupied: "N"`

Deletion :
frontend

A screenshot of a web browser window titled "Feedback Management". The page displays a table of feedback items with columns for Id and Query. A modal dialog box is open in the center, asking "Are you sure you want to delete this item?". The dialog shows the Id as 1 and the Query as "I like the house it is very". At the bottom are "Yes, delete" and "Cancel" buttons.

backend



MongoDB Compass - localhost:27017/test.feed

localhost:27017 ... Documents test.feed +

My Queries Databases Search

test.feed

1 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' } Reset Find More Options >

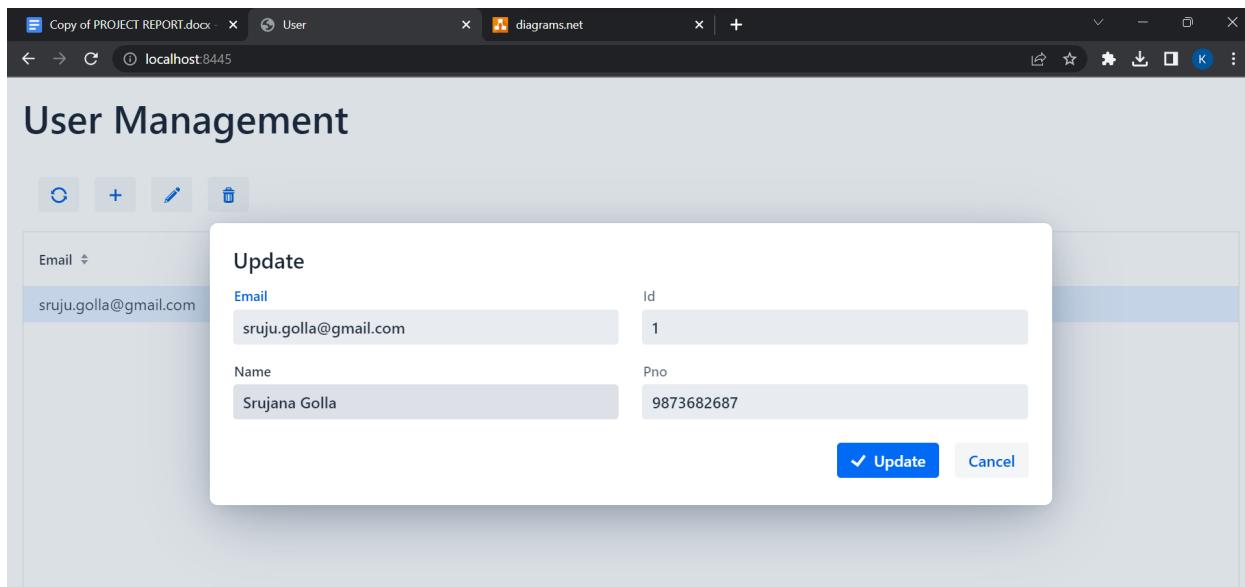
ADD DATA EXPORT COLLECTION 0 - 0 of 0

admin config local startup_log test feed property user

This collection has no data

It only takes a few seconds to import data from a JSON or CSV file.

Updating : frontend



Copy of PROJECT REPORT.docx User diagrams.net

localhost:8445

User Management

Email: sruju.golla@gmail.com

Update

Email	sruju.golla@gmail.com	Id	1
Name	Srujana Golla	Pno	9873682687

✓ Update Cancel



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Email	Id	Name	Pno
sruju.golla@gmail.com	1	Anwesha Paul	9873682687

backend

```
_id: 1
name: "Anwesha Paul"
pno: "9873682687"
email: "sruju.golla@gmail.com"
_class: "InSys.demo.User"
```