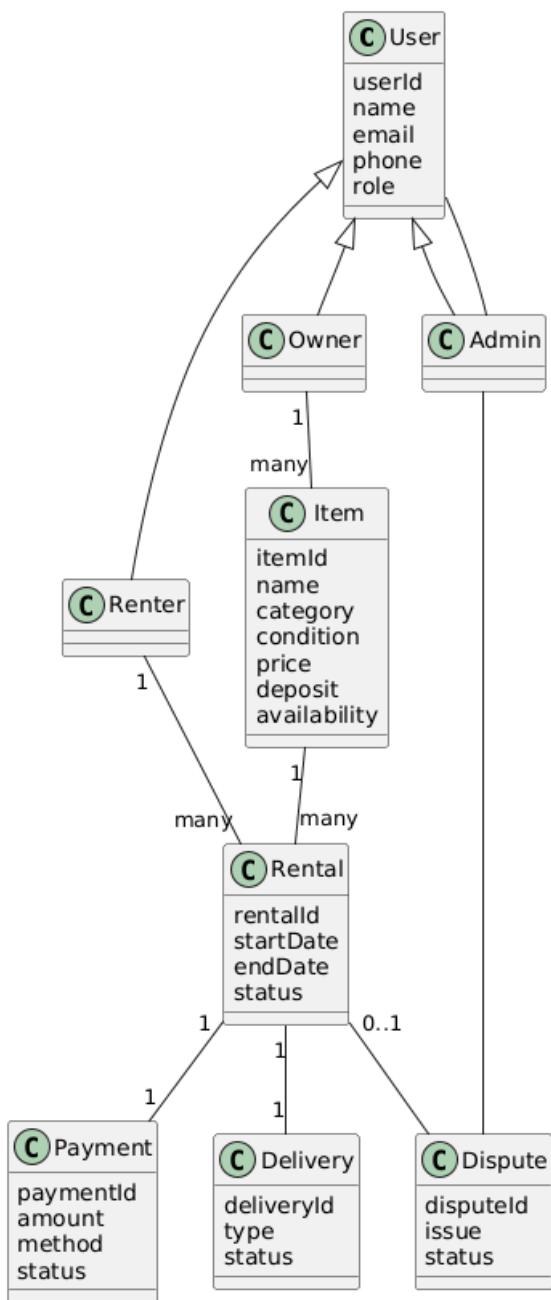


# UML DIAGRAM

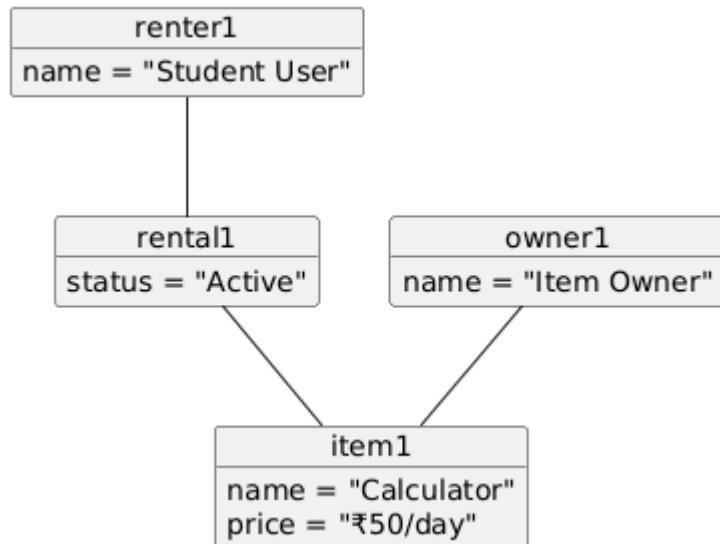
## CLASS DIAGRAM

The class diagram represents the static structure of the RendeX system by showing system classes such as User, Item, Rental, Payment, Delivery, and Dispute along with their attributes and relationships. It explains how different entities in the system are logically connected.



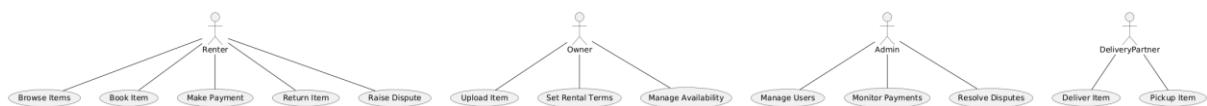
## OBJECT DIAGRAM

The object diagram shows a real-time snapshot of the system by representing specific instances of classes such as a renter, an owner, an item, and an active rental. It helps in understanding how objects interact at a particular moment.



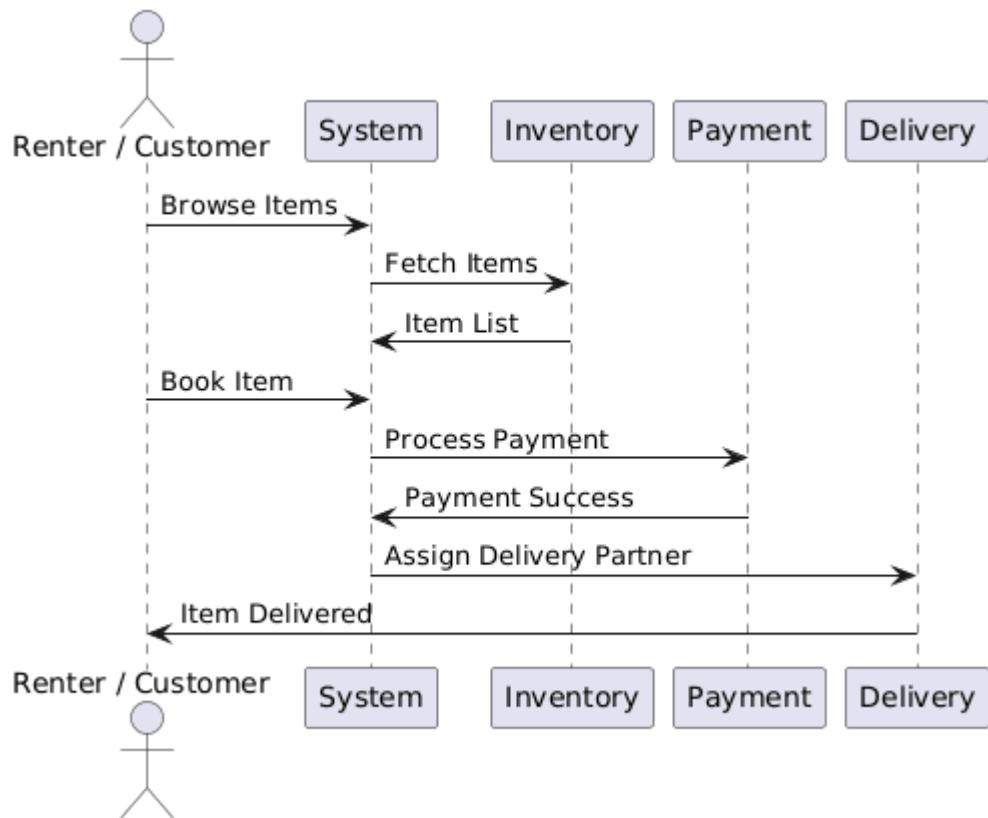
## USE CASE DIAGRAM

The use case diagram illustrates the functional requirements of the RendeX system by identifying actors like Renter, Owner, Admin, and Delivery Partner and their interactions with system features such as booking items, uploading products, making payments, and resolving disputes.



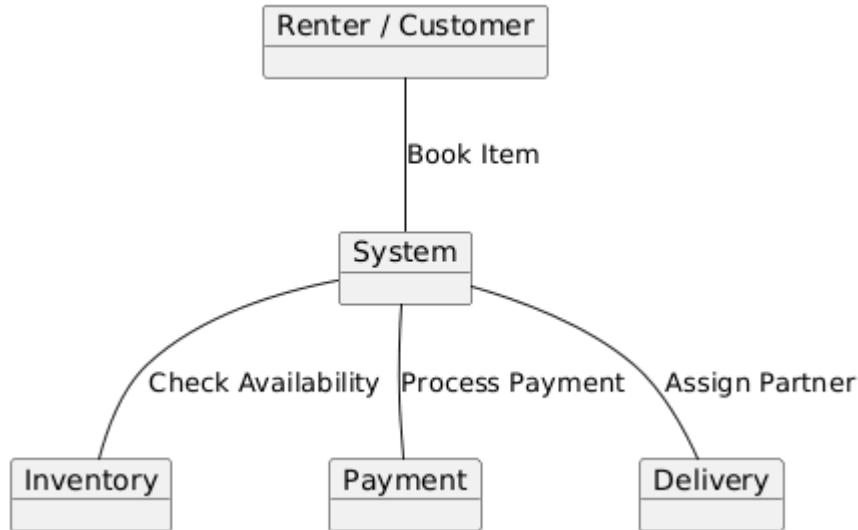
## SEQUENCE DIAGRAM

The sequence diagram depicts the time-ordered interaction between system components during the rental process, showing how a renter browses items, books an item, makes payment, and receives the item through delivery.



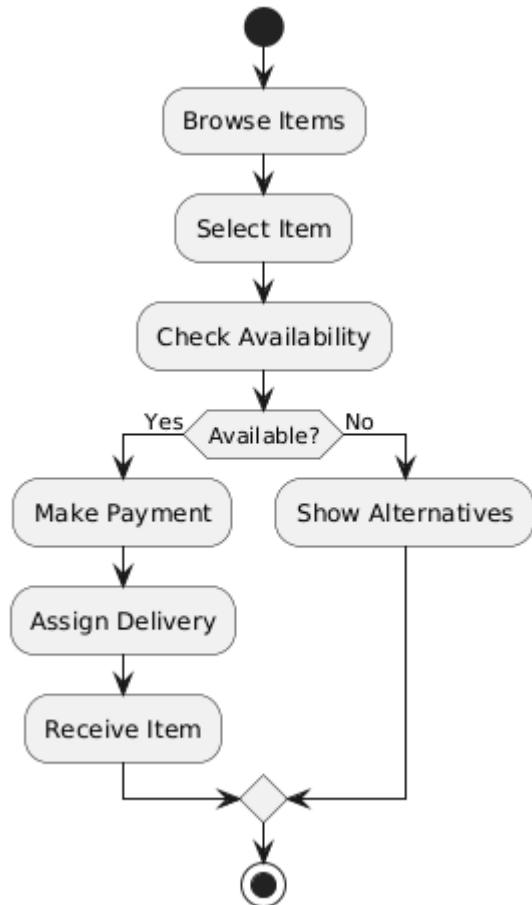
## COLLABORATION DIAGRAM

The collaboration diagram focuses on object interactions and message flow among different components such as the user, system, inventory, payment, and delivery services to complete a rental transaction.



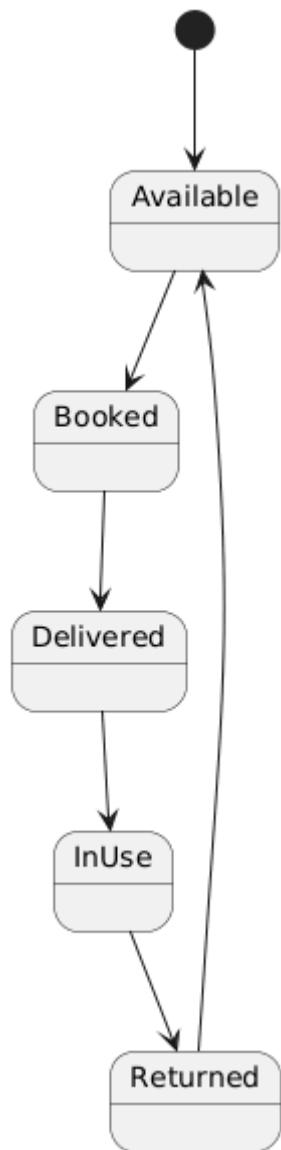
## ACTIVITY DIAGRAM

The activity diagram represents the workflow of rental operations in the RendeX system, starting from browsing items, checking availability, making payment, assigning delivery, and completing the rental process.



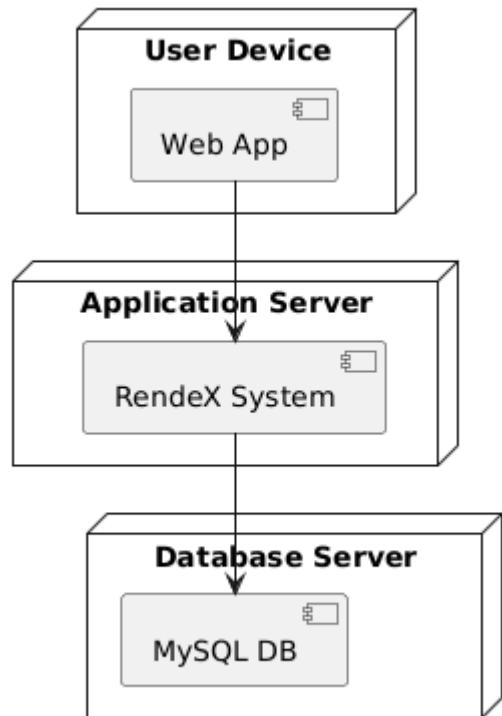
## STATE CHART DIAGRAM

The state chart diagram describes the lifecycle of a rental item, showing how an item changes states from available to booked, delivered, in use, returned, and again available.



## DEPLOYMENT DIAGRAM

The deployment diagram shows the physical architecture of the system, including user devices, application server, and database server, and explains how system components are deployed and connected.



## COMPONENT DIAGRAM

The component diagram illustrates the modular structure of the RendeX system, highlighting major components such as User Management, Inventory Management, Rental & Support Services, Payment Gateway, and Delivery Service and their dependencies.

