

Hostel Management System

Simplifying Student Accommodation

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Project Description

The rising number of educational institutions has led to a corresponding increase in private hostel facilities for student accommodation.

Primary issue: Relying on offline System.

Challenges Faced:

- Long Waiting for assigning hostel rooms.
- Absence of an online system for booking private study rooms.
- Reporting lost items in the hostel was restricted to offline channels.
- Lack of online access to view whether the books are available in the library or not.



First Sprint

Product Backlog

End Users

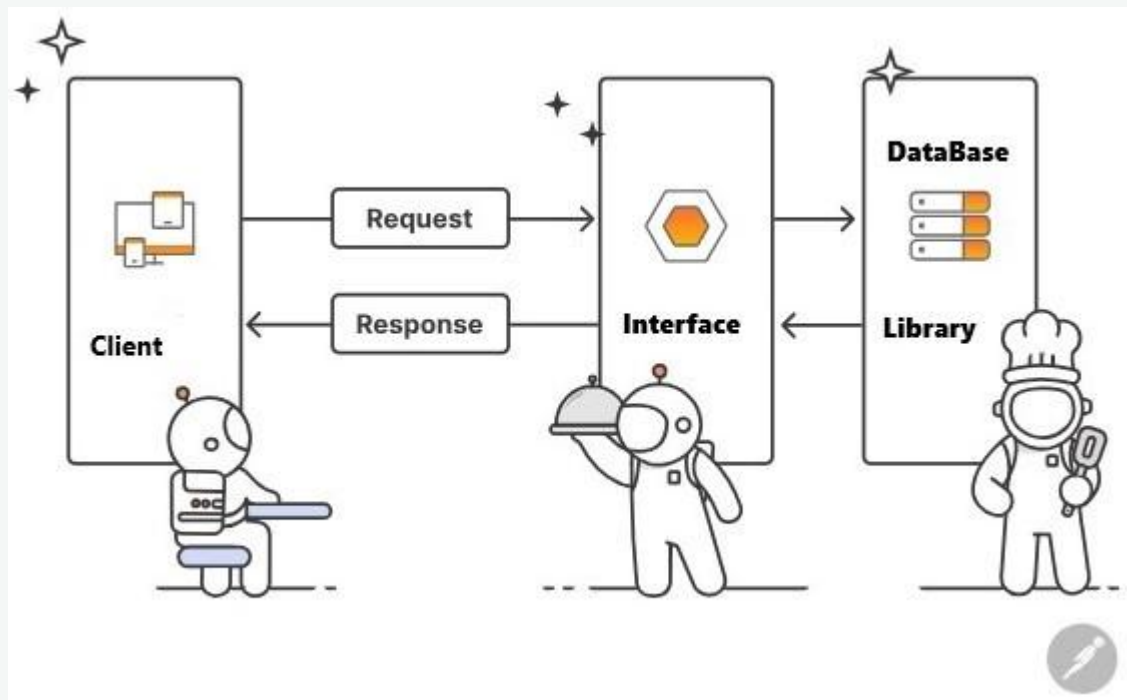
- **Item 1 Login System:** Allowing end users to login, with their credentials.
- **Item 2 Registration System:** Allowing end users to register, with their username, password, and email address.
- **Item 3 Home:** Create a home screen, to display any important information.
- **Item 4 Logout:** Create a end user logout functionality.

First Sprint

Product Backlog

Admin Users

- **Item 5 Login System:** Allowing admin users to login, with their credentials.
- **Item 6 Registration System:** Allowing admin users to register, with their username, password, and email address. After registration, manager will have capabilities to add the user to admin group.
- **Item 7 Home:** Create a home screen, to display any important information.
- **Item 8 Logout:** Create a admin user logout functionality.



First Sprint

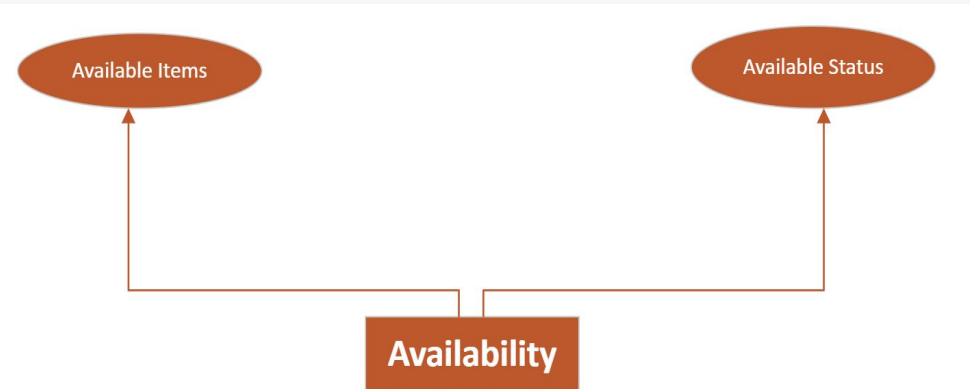
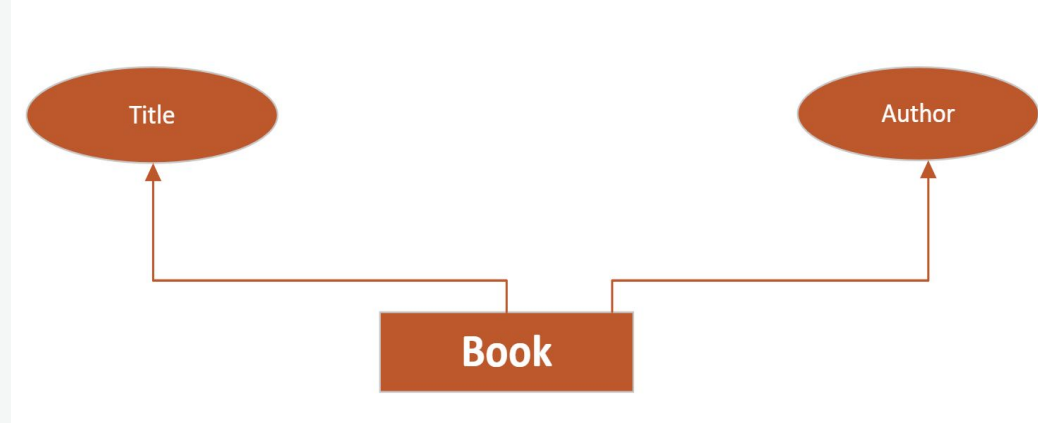
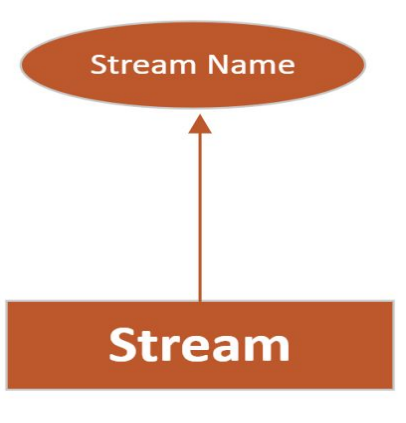
DataBase Design

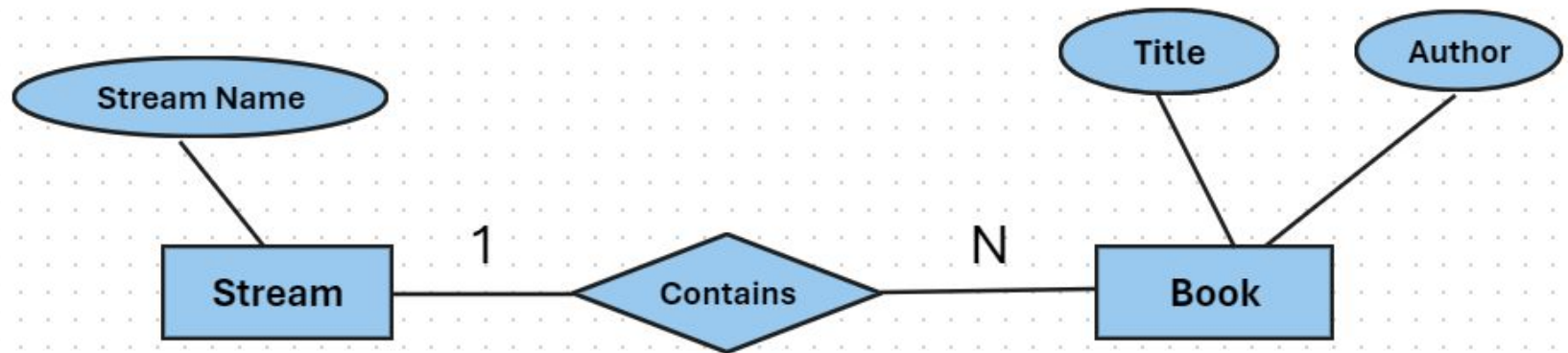
Purpose:

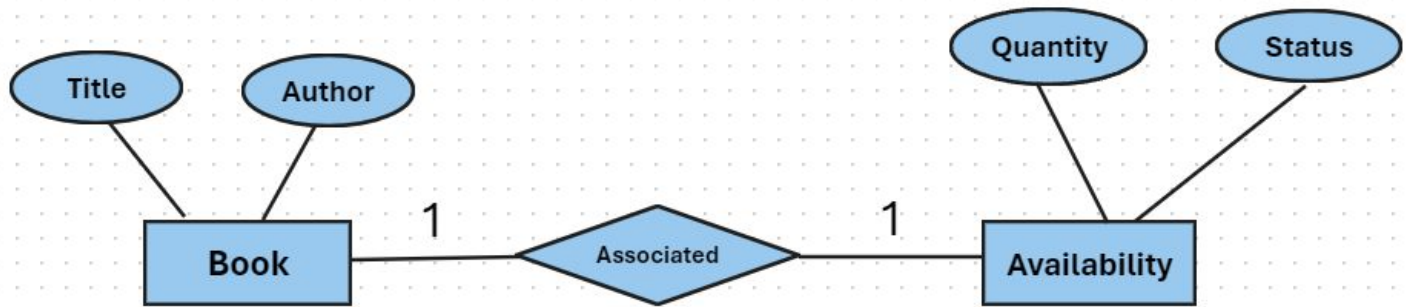
End users should be able to fetch the Library books by specifying the Stream Name and Book Name.

Admin users should be able to create, read, update and delete the library books.

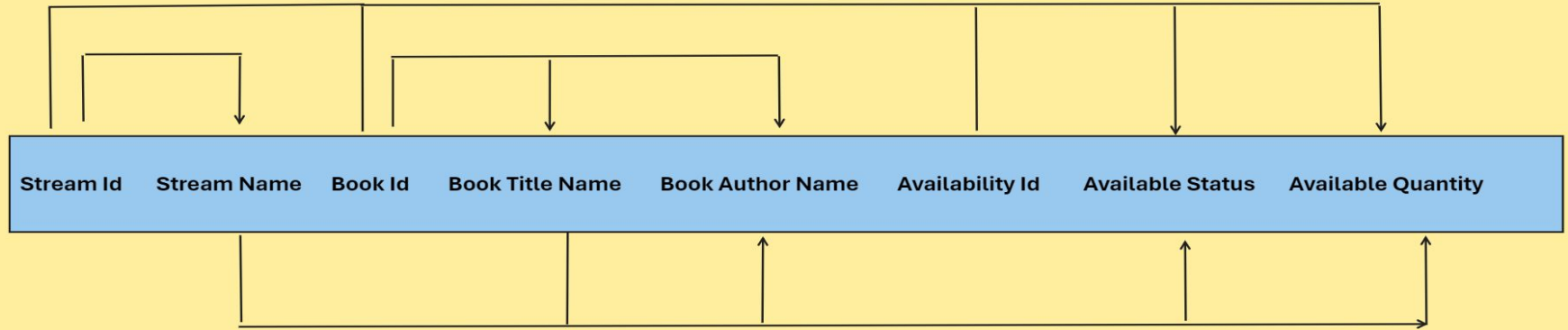
Entity Relationship Diagram







Functional Dependencies



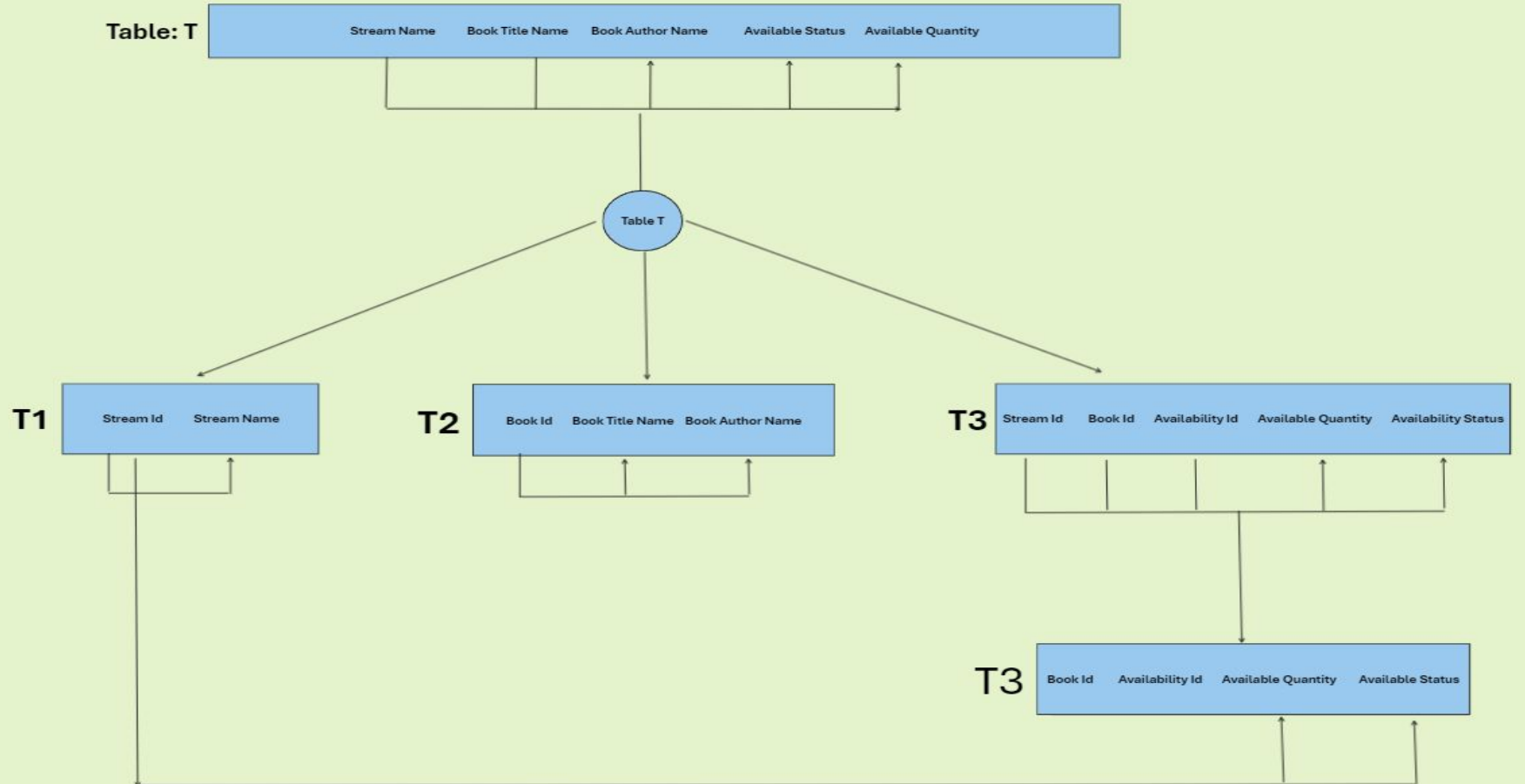
[Stream Id] \Rightarrow [Stream Name]

[Book Id] \Rightarrow [Book Title Name, Book Author Name]

[Book Id, Availability Id] \Rightarrow [Available Status, Availability Quantity]

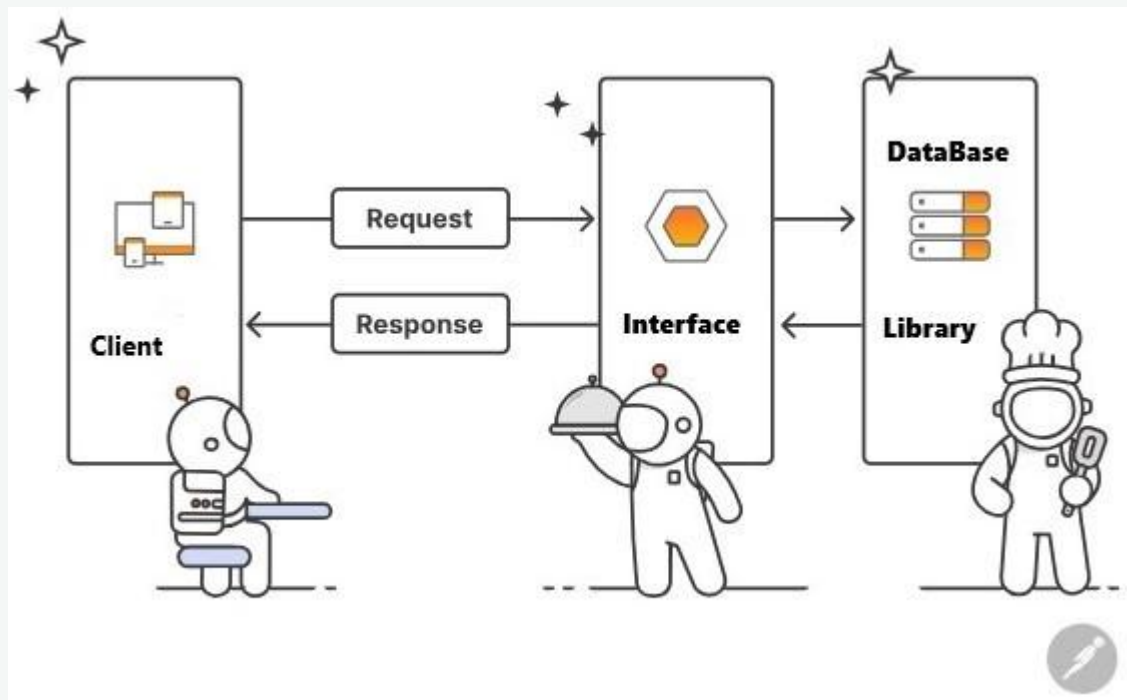
[Stream Name, Book Title Name] $==\Rightarrow$ [SN, BTN, BAN, AQ, AS]

Normalization



Crow's Foot Notation





Product Backlog

Setting Up Interface Setup

- **Item 33:** Create a setup for End User Authentication.
- **Item 34:** Create a setup for Admin User Authentication.
- **Item 35:** Create a setup for Registering the users.
- **Item 36:** Create a setup for adding the users to manager group and for deleting the user from manager group.

Testing

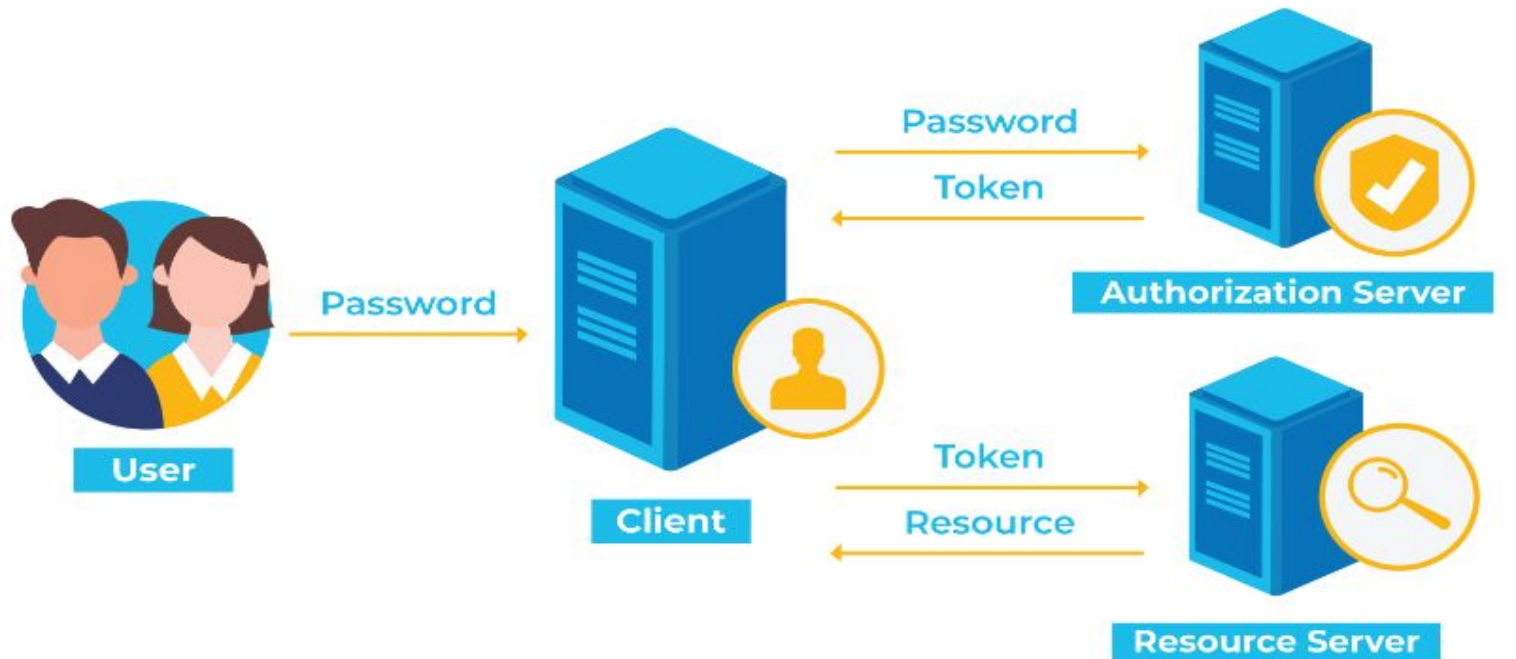
- **Item 37:** Create the setup for testing Interface URL Endpoints.
- **Item 38:** Create a setup for writing the test cases for individual components.

Documentation

- **Item 39:** Setup the Open API swagger to document the URL Endpoints Methods.

Item 40 Dark Theme: Implement Dark Mode.

Token Based Authentication



**Thank you for your time and
attention 😊**