**Class Diagram**

Class diagram is used for describing *structure and behavior* in the use cases, provides a conceptual model of the system in terms of entities and their relationships, used for requirement capture, end-user interaction. Detailed class diagrams are used for developers. A class diagram depicts classes and their interrelationships.

There are 5 classes

* Author
* User
* Admin
* Database
* Library

Description

* Author

Attributes: Author id, Author Name, Language.

Operations:

Author uploads books, Writes books; makes any changes to the books uploaded (edit books). He also performs operations such as searching books, suggesting books, share books with other users.

* User

Attributes: User id, password, Account information.

Operations:

User searches for books, shares books with his friends on cloud, requests for books that are not available in the cloud, book any books online, suggest books for other users, add books to favorites, and view availability of books in the cloud.

* Admin

Attributes: User information.

Operations:

Maintain details of books, users, and authors. Admin also has the power to add users and delete users, adding books, deleting books and updating books is also done by the admini.

* Database

Attributes: Database id, Size.

Operations:

Database maintains the user data, maintains author data, availability of books is also maintained and updated in the database, maintains details of the libraries and books available in particular libraries.

* Library

Attributes: Location, Id

Operations:

Library orders books, issues books and collects books from users, maintaining record of books in the database.