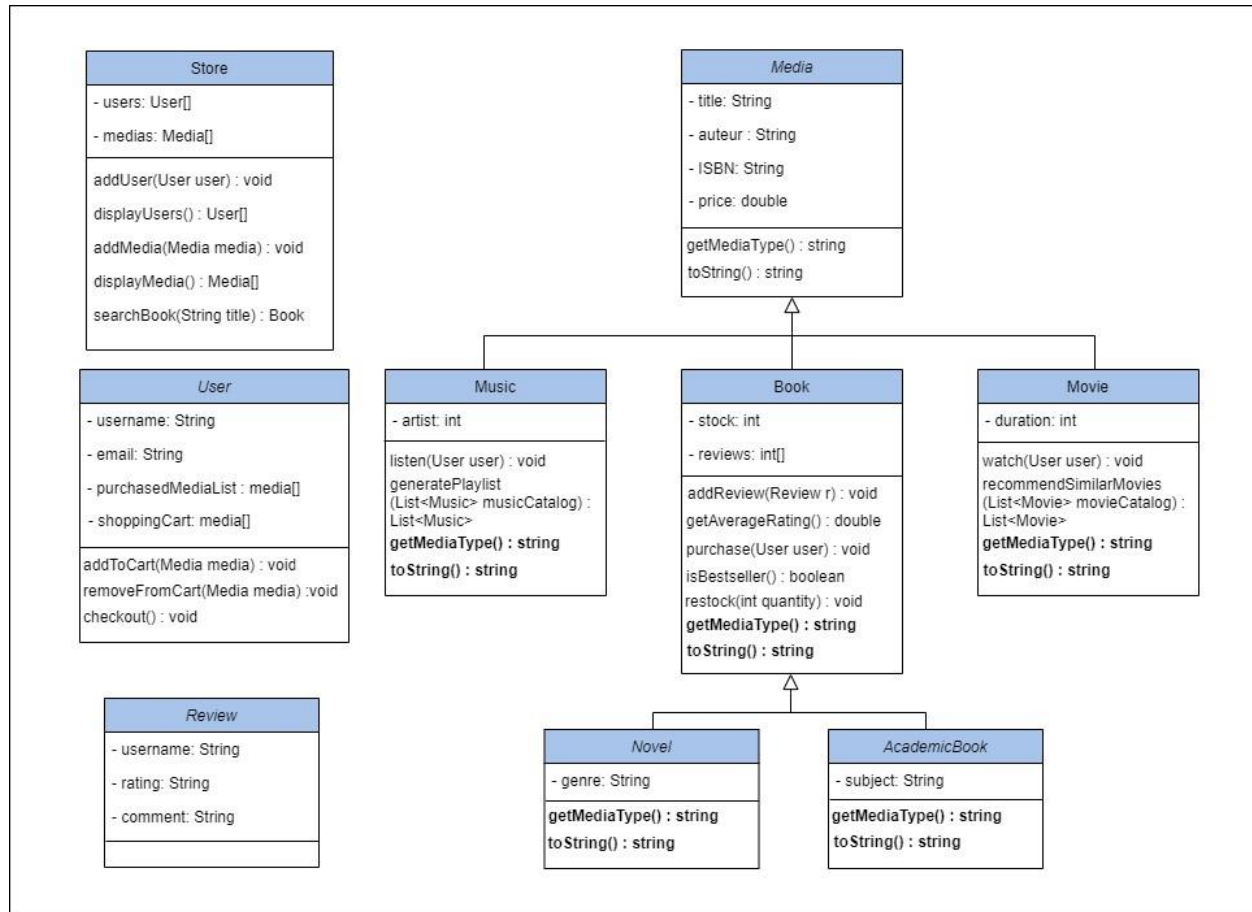# Lab 3

Build an Online Store with the following class structure:

1. **Media Class:**

   • Properties: title, auteur, ISBN, and price.

   • Methods:

   • getters and setters for properties, • getMediaType(): return "Media" • toString().

2. **Book Class (inherits from Media):**

- Additional properties: quantity in stock, list of reviews.

- Methods:

- addReview(Review review): Adds a review to the book's list.
- getAverageRating(): Calculates and returns the average rating.
- purchase(User user): Allows users to add the book to the purchased list and decrease book stock by 1.
- isBestseller(): This method checks if a book is a bestseller based on criteria such as if its average rating more than or equal 4.5.
- restock(int quantity): This method allows for restocking a book by increasing its quantity in stock. It also prints a message to inform about the restocking.
- Override Methods:
    1. getMediaType(): return **"Bestselling Book**" if Average Rating more than or equel 4.5, else return **"Book**".
    2. toString().

3. **Movie Class (inherits from Media):**
- Additional property: duration (in minutes).
- Methods:
- watch(User user): Allows users to watch the movie by adding the movie to the purchased list .
- recommendSimilarMovies(List<Movie> movieCatalog): Recommends similar movies based on the director (auteur).
- Override Methods:
    1. getMediaType(): return "**Long Movie**" if duration more than or equel 120, else return **"Movie**".
    2. toString().

4. **Music Class (inherits from Media):**
- Additional property: artist (String).
- Methods:
- listen(User user): Allows users to listen to music.
- generatePlaylist(List<Music> musicCatalog): Generates a playlist of similar songs based on the artist (auteur).
- Override Methods:

1. getMediaType(): return "**Premium Music"** if the price more than or equel 10, else return **"Music"**.
2. toString().

5. **Novel Class (inherits from Book):**
   - Additional property: genre.
   - Override Methods:
   - getMediaType(): return **"Bestselling Novel"** if Average Rating more than or equel 4.5, else return **"Novel"**.
   - toString().

6. **AcademicBook Class (inherits from Book):**
   - Additional property: subject.
   - Override Methods:
   - getMediaType(): return **"Bestselling AcademicBook"** if Average Rating more than or equel 4.5, else return **"AcademicBook".**
   - toString().

7. **User Class:**
   - Properties: username, email, a list to keep track of media they've purchased, and a shopping cart.

   - Methods:

   - addToCart(Media media): Adds media to the user's shopping cart.
   - removeFromCart(Media media): Removes media from the shopping cart.
   - checkout(): Completes the purchase and updates purchased media list and stock.

8. **Review Class:**
   - Properties: username, rating, and comments.

9. **Store Class:**
   - Properties: a list of media and a list of users.

   - Methods:

- addUser(User user): Adds a user to the list of users.

- displayUsers(): Displays a list of registered users.

- addMedia(Media media): Adds a media to the list of medias.

- displayMedias(): Displays a list of Available medias.
- searchBook(String title): Searches for a book by title and returns it if found.

Instructions:

1. Implement the above class structure with proper properties, constructors, getters, and setters.

2. Create instances of various books, movies, and music items, including Novel and AcademicBook objects.

3. Add media items to the store's available media list.

4. Allow users to add items to their shopping carts, remove items, and complete purchases.

5. Allow users to leave reviews for books and calculate the average rating for each book.

6. Test different scenarios to ensure the functionality of your Online Media Store.