Report of Database API Development

This repot explain about API development and how each endpoint was created to solve a specific use case. The next section is explanation on the specific use case of each endpoint.

1. **Creating New Account**

   1. Add Customer:
      - Insert new customer data (firstname, lastname) into the "customer" table.
      - Retrieve the newly created customer's ID.
   2. Create Account:
      - Insert new account data (username, passwordaccount, customerID) into the "account" table, linking it to the retrieved customer ID. Then, retrieve the newly created account's ID.
   3. Create Wishlist:
      - Insert a new wishlist entry with the retrieved account ID into the "wishlist" table.
      - Retrieve the newly created wishlist's ID. 4.
   4. Save Changes:
      - Commit all database modifications.

2. **Retrieving Information about Book from Particular Author**

   1. Get Author:
      - Get authorname as parameter.
   2. Query Database:
      - Join tables books, inventory, authors, store based on their IDs or primary key and foreign key that is correspond to each table.
      - Filter books by author name (parameter).
      - Retrieve book details (title, author, quantity, price, store).
   3. Return:
      - Return list of dictionaries with book data (if successful) or error message.

3. **Updating Password**

   1. Get Username and Password:
      - Extract username, current_password, new_password from request.
   2. Verify Username and Current Password:
      - Check username exists and current password matches database record.
      - Return error messages if invalid.
   3. Update Password:
      - Update password for username in database and commit changes.
   4. Return:
      - Return success message if update is successful or message error.

5. **Adding New Item to Wishlist**

   1. Get and Validate Params (fail if missing):
      - Get Book title, username, and storename.
   2. Verify Items and Get IDs (fail on any error):
      - Retrieve book, store, user, wishlist (with IDs) from different tables.
   3. Get Inventory ID (fail if not found):
      - Find inventory for book in store.
   4. Add to Wishlist (commit or rollback):
      - Link inventory and wishlist IDs in inventory_wishlist table with corresponding IDs.
   5. Return:
      - Return success or message error if not succeed (covered from previous steps).

6. **Delete Account**

   1. Get Username and Password (or error if missing):
      - Get username and password from request.
   2. Verify User & Get Account ID (fail on any error):
      - Check user exists and password matches. Then, Retrieve account ID.
   3. Get and Delete Wishlist (or rollback):
      - Find wishlist ID for account.
      - Delete wishlist entries and wishlist itself.
   4. Delete Account (or rollback):
      - Delete account entry.
   5. Return Success (or error from previous steps):
      - Return success message if account is being deleted successfully.

Documentation of GRB API Development:

1. **Video:** https://youtu.be/QOtCwTzTo6c
2. **GitHub Repository:** https://github.com/nibroosauro/Rest-API-for-Bookstore-Scheme