**Personal Finance Management Application - User Manual**

**1. Introduction**

The Personal Finance Management Application is a command-line tool designed to help users manage their finances by tracking income and expenses. The application allows users to:

* Register and authenticate.
* Add, view, update, and delete transactions.
* Set and track budgets for various categories.
* Generate detailed financial reports (monthly and yearly).
* Backup and restore the database.

This user manual will guide you through the installation process, usage, troubleshooting, and frequently asked questions.

**2. System Requirements**

* Software Requirements:
* Python 3.x or higher: The application is built using Python.
* SQLite Database: The application uses SQLite to store user data and transactions.
* Required libraries:

1. sqlite3 (for database operations)
2. reportlab (for generating PDF reports)
3. Any additional libraries mentioned in requirements.txt.

* Hardware Requirements:
  1. Any computer with Python 3.x installed.
  2. Sufficient storage space to hold transaction data and backups.

**3. Installation Instructions**

**Step 1: Download the Project Files**

Download the project folder to your local machine from the source location.

**Step 2: Install Python (if not already installed)**

* Visit the official Python website: [https://www.python.org/downloads/](https://www.python.org/downloads/).
* Download and install the latest Python 3.x version.

**Step 3: Install Dependencies**

* Open a terminal or command prompt.
* Navigate to the project directory.
* Install required libraries by running: pip install -r requirements.txt

**Step 4: Set Up the Database**

* The application uses SQLite for data storage.
* To set up the database and create necessary tables, run the following script: python setup\_database.py

**4. Usage Instructions**

* **Running the Application**

1. Navigate to the project folder using a terminal or command prompt.

2. Run the main application: python app.py

The application will start and guide you through the options available.

* **Basic Operations**

**1. Register a New User**

* Upon launching the app, you will be prompted to register a new user.
* Enter a username and password.
* If the username is already taken, you will be prompted to choose another one.
* Once registered, you can log in to the application using your credentials.

**2. Log In**

* Enter the username and password you used during registration.
* If the credentials are correct, you will be logged into the application.

**3. Add a Transaction**

* You can add a new transaction (either income or expense) by selecting the "Add Transaction" option.
* For each transaction, you will need to enter:

1. **Transaction Type:** Choose 'income' or 'expense'.
2. **Amount:** The monetary value of the transaction.
3. **Category:** The category for the transaction (e.g., "Food", "Rent").
4. **Description:** A short description of the transaction.

**4. View Transactions**

* You can view all transactions for the current user by selecting the "View Transactions" option.
* The transactions will be displayed with details like amount, category, type, and date.

**5. Generate Reports**

* Monthly Report: Displays the total income, expense, and savings for the current month.
* Yearly Report: Displays the total income, expense, and savings for the current year.
* You can select the report type when prompted.

**6. Set or Update Budgets**

* The application allows users to set budgets for different categories (e.g., food, rent).
* You can set or modify a budget for a specific category and period (monthly/yearly).
* The application will notify you if you exceed the budgeted amount for a category.

**7. Backup and Restore Data**

* You can create a backup of your data by selecting the "Backup Data" option.
* The backup will be saved as a .sql file.
* You can restore the backup by running the restore script if necessary.

**5. Troubleshooting**

**1. Application Crashes on Startup**

* Ensure Python is installed correctly.
* **Make sure all required libraries are installed by running:** pip install -r requirements.txt

**2. Database Errors**

* Ensure the finance.db file is present in the project directory.
* **Re-run the database setup script:** python setup\_database.py

**3. Invalid Login Credentials**

* Double-check the username and password.
* If forgotten, re-register or reset the password if such functionality is available.

**4. Issues with Generating Reports**

* If the report is not generated correctly, verify that you have added transactions within the requested period (month or year).

**6. License & Credits**

**Credits**

* This project was created by [Your Name].
* Libraries used:

1. sqlite3 (SQLite Database for storage)
2. reportlab (for PDF generation)
3. Python 3.x

**License**

This project is licensed under the MIT License. See the LICENSE file for more information.

**Appendix: Sample Commands and Expected Outputs**

* **Sample Commands for Running the Application:**
* **Add Transaction (Expense):**

python main.py

Choose option: 2

Transaction Type (income/expense): expense

Amount: 50

Category: Food

Description: Dinner at restaurant

* + **View Transactions:**

python main.py

Choose option: 3

* + **Generate Monthly Report:**

python main.py

Choose option: 4

**Select report type:** monthly