

Personal Finance Manager User Manual

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Contents

1	Introduction	3
1.1	System Requirements	3
2	Installation	3
2.1	Step 1: Install Python	3
2.2	Step 2: Download the Application	3
2.3	Step 3: Install Dependencies	3
2.4	Step 4: Run the Application	3
3	Usage Instructions	4
3.1	Getting Started	4
3.2	User Account Management	4
3.3	Managing Transactions	4
3.4	Setting and Viewing Budgets	5
3.5	Generating Reports	5
3.6	Data Backup and Restore	5
4	Troubleshooting	5

1 Introduction

The Personal Finance Manager is a Python-based command-line application designed to help you manage your finances effectively. With features like transaction tracking, budget setting, and financial reporting, it provides a secure and user-friendly way to monitor your income and expenses. This manual guides you through the installation and usage of the application.

1.1 System Requirements

- **Operating System:** Windows, macOS, or Linux
- **Python:** Version 3.6 or higher
- **Disk Space:** Approximately 10 MB for the application and database
- **Dependencies:** `tabulate` Python package

2 Installation

This section outlines the steps to install the Personal Finance Manager on your system.

2.1 Step 1: Install Python

1. Verify if Python 3.6+ is installed by running:

```
python --version
```

2. If Python is not installed, download and install it from python.org.

2.2 Step 2: Download the Application

1. Clone the repository or download the source code:

```
git clone https://github.com/your-username/personal-finance-manager
cd personal-finance-manager
```

2. Alternatively, download the ZIP file from the repository and extract it.

2.3 Step 3: Install Dependencies

1. Install the `tabulate` package using `pip`:

```
pip install tabulate
```

2. Ensure you have an active internet connection for the installation.

2.4 Step 4: Run the Application

1. Navigate to the project directory and run:

```
python Finance_Manager.py
```

2. The application will create a local SQLite database (`finance_manager.db`) on first run.

3 Usage Instructions

The Personal Finance Manager operates through a command-line interface with intuitive menus. Below are the key functionalities and how to use them.

3.1 Getting Started

1. Launch the application by running:

```
python Finance_Manager.py
```

2. You will see the main menu with options to **Register**, **Login**, or **Exit**.

3.2 User Account Management

- **Register:**

- Select option 1 from the main menu.
- Enter a username (minimum 3 characters).
- Enter a password (minimum 6 characters) and confirm it.
- Passwords are securely hashed using SHA-256.

- **Login:**

- Select option 2.
- Enter your username and password to access your account.

- **Logout:**

- After logging in, select option 10 to log out securely.

3.3 Managing Transactions

- **Add Transaction** (Option 1):

- Choose transaction type (`income` or `expense`).
- Enter the amount (e.g., `50.75`).
- Select or create a category (e.g., `Salary`, `Food`).
- Add an optional description.
- Specify the date (YYYY-MM-DD) or leave blank for today.

- **View Transactions** (Option 2):

- Filter by all transactions, date range, category, or type.
- View a tabulated summary with total income, expenses, and balance.

- **Edit Transaction** (Option 3):
 - View recent transactions and select an ID to edit.
 - Update type, amount, category, description, or date as needed.
- **Delete Transaction** (Option 4):
 - Select a transaction ID and confirm deletion.

3.4 Setting and Viewing Budgets

- **Set Budget** (Option 5):
 - Specify the month and year (or use current).
 - Choose an expense category and set a budget amount.
- **View Budgets** (Option 6):
 - Select a month and year to see budgets, spending, and remaining amounts.
 - Progress indicators show budget status (**Green** for safe, **Orange** for near limit, **Red** for over budget).

3.5 Generating Reports

- Select option 7 to access report types:
 - **Monthly Report**: Summarizes income, expenses, and budget performance for a specific month.
 - **Yearly Report**: Shows monthly breakdowns and top categories for a year.
 - **Category Breakdown**: Analyzes spending by category over a date range.
 - **Income vs Expense Trend**: Displays daily or monthly trends.

3.6 Data Backup and Restore

- **Backup Data** (Option 8):
 - Creates a backup file in the `backups/` directory with a timestamp.
- **Restore Data** (Option 9):
 - Lists available backups for your account.
 - Select a backup to restore, replacing current data (with confirmation).

4 Troubleshooting

- **Missing tabulate**: Run `pip install tabulate`.
- **Invalid Date**: Use YYYY-MM-DD format (e.g., 2025-05-19).
- **Backup Not Found**: Verify the `backups/` directory exists and contains your backup files.