

User Manual

Pharmacy Medication Tracking System

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# Introduction

This project is called the Pharmacy Medication Tracking System. It’s a program that our group built to help manage important information in a pharmacy, like patients, doctors, medications, and prescriptions. The system lets users add, search, update, and delete records, accept new prescriptions, and generate reports to keep everything organized.

# System Requirements

To run this program, you need:

* Java JDK 11 or higher installed
* A computer running Windows, Mac, or Linux
* Access to a terminal or command prompt

# Installation Guide/ Getting Started

* Download the project files from our GitHub repository.
* Open the project folder in Visual Studio Code.
* Make sure Java is installed on your computer.
* Open any Java file in the project.
* Click the Run button or press the play icon at the top to start the program.
* The program will open and show the main menu for you to use.

# Class Diagrams

## Person, Patient, and Doctor

The following diagram details the relationship between **Person**, **Patient**, and **Doctor**:

A screenshot of a computer

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## Medication and Prescription

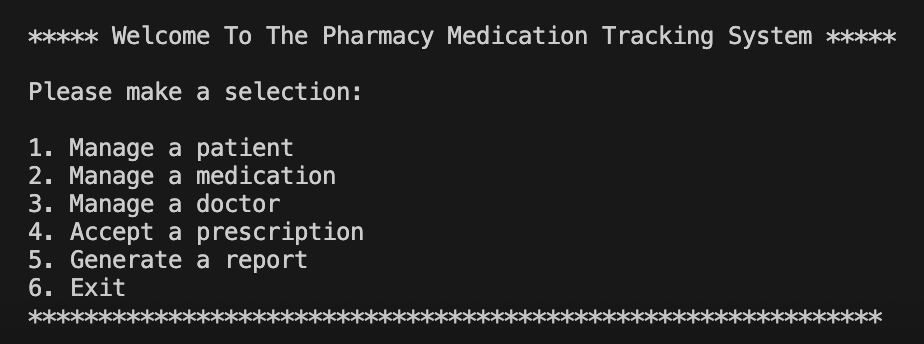
The following diagram details the relationship between **Medication** and **Prescription**:

A screenshot of a computer

AI-generated content may be incorrect.

# Main Menu (1–6)

* The Main Menu provides access to all functions of the program. To navigate, simply type the number associated with the function you wish to perform, and press Enter.



# Manage a patient:

-From the main menu selection screen, type **1**, and press Enter/Return to confirm.

-You will then be greeted with the following sub-menu:

A screen shot of a computer

AI-generated content may be incorrect.

-Type the corresponding option between **1** and **5**, and press Enter/Return to confirm.

## Add a patient:

* Type **1**, and press Enter/Return to add a new patient.
* Follow the prompts to enter:
* First Name: Letters only. To quit, simply type **q**,and press Enter/Return.
* Last Name: Letters only.
* Date of Birth: Format must be YYYY-MM-DD. For example, 1980-12-31.
* Phone Number: Exactly 10 digits, no spaces or special characters.
* Gender: Enter M for Male, F for Female, or O for Other.

It should look as follows:

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* You will then be prompted to add another patient. Type **Y** for "Yes" or **N** for "No", and press Enter/Return to confirm. Select "No" to return to the main menu.

## Find a patient:

* Type **2**, and press Enter/Return to search for a patient and display their personal information, list of medications and list of prescriptions.
* You can search for a patient either by their ID, or first name and last name.
* Follow the prompts to enter:
* Patient ID: A numerical value over 0 is accepted. Leave blank, and press Enter/Return to search by full name instead.
* First Name: Letters only.
* Last Name: Letters only.

It should look as follows:

A computer screen with white text

AI-generated content may be incorrect.

## Edit a patient:

* Type **3**, and press Enter/Return to edit a patient's personal information.
* To edit a patient's details, you will first be prompted to select the patient, which is done by using the "Find a Patient" functionality. Please refer to section 5.2 for guidance.
* Once a patient has been selected, their current details will be displayed. You will then be prompted to input the updated data.
* You only need to input the values that need to change. Leave a blank value, followed by Enter/Return to leave the data unchanged.
* Next, you will be prompted to confirm the changes. Type **Y** for "Yes" or **N** for "No", and press Enter/Return to confirm.
* Finally, you will then be prompted to edit another patient. Type **Y** for "Yes" or **N** for "No", and press Enter/Return to confirm. Select "No" to return to the main menu.

It should look as follows:

A screenshot of a computer

AI-generated content may be incorrect.

## Delete a patient:

* Type **4**, and press Enter/Return to delete a patient from the database.
* To delete a patient, you will first be prompted to select the patient, which is done by using the "Find a Patient" functionality. Please refer to section 5.2 for guidance.
* Once a patient has been selected, their current details will be displayed. You will then be prompted to delete the patient.
* Next, you will be prompted to confirm the deletion. Type **Y** for "Yes" or **N** for "No", and press Enter/Return to confirm.
* Finally, you will then be prompted to delete another patient. Type **Y** for "Yes" or **N** for "No", and press Enter/Return to confirm. Select "No" to return to the main menu.

It should look as follows:

A computer screen with white text

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# Manage a Medication

-From the main menu selection screen, type **1**, and press Enter/Return to confirm.

-You will then be greeted with the following sub-menu:

**A screen shot of a computer

AI-generated content may be incorrect.**

-Type the corresponding option between **1** and **6**, and press Enter/Return to confirm.

## Add a Medication:

* Type **1**, and press Enter/Return to add a new medication.
* Follow the prompts to enter:
* Medication Name: Letters only.
* Dosage: Number only, not negative.
* Quantity in stock: Number only, not negative, no decimal.
* Expiry Date: Format must be YYYY-MM-DD. For example, 1980-12-31.

It should look as follows:

**A screen shot of a computer

AI-generated content may be incorrect.**

* You will then be prompted to press enter to return to the main menu. Simply press Enter/Return to confirm.

## Search for a Medication:

* Type **2**, and press Enter/Return to search for a medication and display its name, dosage, quantity in stock and expiration date.
* Follow the prompt and enter:
* Medication Name: Letters only.

It should look as follows:

**A screen shot of a computer

AI-generated content may be incorrect.**

## Edit a Medication:

* Type **3**, and press Enter/Return to edit the details of a medication.
* To edit the details of a medication, you will first be prompted to select the medication, which is done by using the "Search for a Medication" functionality. Please refer to section 6.2 for guidance.
* If a medication is found, you will be prompted to enter updated information about the medication.

It should look as follows:

**A screen shot of a computer

AI-generated content may be incorrect.**

## Delete a Medication:

* Type **4**, and press Enter/Return to delete a medication from the database.
* To delete a medication, you will first be prompted to select the medication, which is done by using the "Search for a medication" functionality. Please refer to section 6.2 for guidance.
* If a medication is found, it will be automatically deleted from the database.

It should look as follows:

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## Restock a medication:

* Type **5**, and press Enter/Return to restock on a medication.
* To restock on a medication, you will first be prompted to select the medication, which is done by using the "Search for a medication" functionality. Please refer to section 6.2 for guidance.
* Once a medication is found, follow the prompt and enter:
* Quantity to add to stock: Number only, not negative, no decimal.

It should look as follows:

**A screen shot of a computer

AI-generated content may be incorrect.**

# Manage a Doctor

- From the Main Menu, select the option for Manage a doctor

- The system will display the following sub menu:

A screen shot of a computer

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## Add a doctor:

* Select 1 to add a new doctor.
* Follow the prompts to enter:
* First Name: Letters only.
* Last Name: Letters only.
* Date of Birth: Format must be YYYY-MM-DD. For example, 1980-12-31.
* Phone Number: Exactly 10 digits, no spaces or special characters.
* Gender: Enter M for Male, F for Female, or O for Other.
* Specialization: Enter the doctor's area of expertise.
* Once all information is entered correctly, the doctor will be added to the system.
* You will see a confirmation message and be prompted to press Enter to return to the Doctor Management menu.

## Search a doctor:

* Select 2 from the Doctor Management menu.
* Enter the Doctor ID (numeric).
* Enter the Doctor’s First Name and Last Name (letters only).
* If a matching doctor is found, their details will be displayed, including ID, full name, date of birth, phone number, gender, and specialization.
* If no doctor matches the criteria, a message will inform you that the doctor was not found.
* Press Enter to return to the Doctor Management menu.

## Edit a doctor:

* Select 3 from the Doctor Management menu.
* Enter the Doctor ID, First Name, and Last Name of the doctor to edit.
* If the doctor exists, you will be prompted to update:
* Phone Number: Enter a new 10-digit phone number or press Enter to keep the current number.
* Specialization: Enter a new specialization or press Enter to keep the current one.
* The system will confirm the update.
* Press Enter to return to the Doctor Management menu.

## Delete a doctor:

* Select 4 from the Doctor Management menu.
* Enter the Doctor ID, First Name, and Last Name of the doctor you wish to delete.
* If a matching doctor is found, they will be removed from the system.
* A confirmation message will appear.
* Press Enter to return to the Doctor Management menu.

## Assign a patient to a doctor:

* Select 5 from the Doctor Management menu.
* You will be prompted to search for the doctor you would like to select.
* Enter the Doctor ID, or First Name and Last Name of the doctor you would like to select.
* You will then be prompted to search for the patient you would like to add to the doctor's list of patients.
* Enter the Patient ID, or First Name and Last Name of the patient you would like to assign to the doctor.
* If a doctor and patient is found, the patient will be added to the doctor's list of patients.
* A confirmation message will appear.
* Press Enter to return to the Doctor Management menu.

## Back to Main Menu:

* Select 6 to return to the Main Menu at any time.

# Accept a Prescription

* This feature automatically creates a sample doctor, patient, medication, and prescription, then links them together and adds them to the system. It demonstrates how a prescription is recorded without requiring any user input.

# Generate a report

- From the Main Menu, select the option for Generate a report

- The system will display the following sub menu:

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## General Report:

When selected, this report prints a full summary of all doctors, patients, and medications currently in the system.

* For each doctor, it shows their name, date of birth, phone number, gender, specialization, and a list of their assigned patients.
* For each patient, it displays their name, date of birth, phone number, gender, their medications, and their prescriptions along with the doctor who prescribed them.
* For each medication, it lists the name, dosage, quantity in stock, and expiry date.

At the end, users are prompted to press Enter to return to the main menu.

## Expired Medication Report:

This report checks and displays all medications that have passed their expiry date.

* If any expired medications are found, it prints their name, dosage, quantity, and expiration date.
* If no expired medications are found, a message will display: “No expired medications found.”

Afterward, the user is prompted to press Enter to return.

## Doctor Prescriptions Report:

The user is first prompted to enter a Doctor ID.

* If the user leaves the input blank, they will then be prompted to enter the doctor's first name and last name to search by name instead.
* It prints each matching prescription with details like prescription ID, patient name, medication name, dosage, quantity, issue date, and expiry date.
* If no prescriptions are found for the selected doctor, it prints a message indicating so.

After displaying each prescription, the program waits for the user to press Enter before continuing to the next prescription.

## Patients Prescriptions Report:

This report lists all prescriptions issued in the past year for each patient.

* It checks each patient and prints any prescriptions issued within the last 12 months.
* If no patients exist in the system, it displays: “No patients found.”

After reviewing the report, users press Enter to return to the main menu.

## Back to Main Menu:

* Select 5 to return to the Main Menu at any time.

# Exiting Program

To close the program:

- Go to the Main Menu.

- Type 6 and press Enter.

- This will shut down the program safely. If you're in a sub-menu, just go back to the main menu first, then select the exit option.

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# Troubleshooting Tips

Here are some quick tips if something goes wrong:

**- The program won't open:**  
Make sure Java is installed. You can check by typing java -version in your terminal.

**- I’m getting errors:**  
Double-check your input. For example, phone numbers must be 10 digits, and dates should look like 1990-01-01.

**- The program crashes or closes:**  
Try restarting it. If you're editing something and it crashes, you may have to start that part over.

# FAQs

**Q: Can I leave stuff blank when editing?**

**A:** Yes! Just hit Enter and the old info will stay the same.

**Q: How do I go back to the main menu?**

**A:** Most sub-menus will give you an option to go back. Just choose it or finish what you're doing.

**Q: What happens if I type something wrong?**

**A:** The program will usually tell you and ask you to try again.

**Q: Can I search without an ID?**

**A:** Yep! Just leave the ID blank and enter the first and last name instead.

**Q: Can I undo a delete?**

**A:** No, once something is deleted, it's gone. You’ll have to re-enter it manually if you need it again.

# Contact Us

If you have any questions or need further assistance, feel free to reach out:

• **Email:**

Justin: Justin.Greenslade@keyin.com Joseph: Joseph.Gallant@keyin.com Ashton: Ashton.Dennis@keyin.com