# MEDI-CARE

**ABSTRACT**

Medicare is a cutting-edge mobile application designed to revolutionize the process of searching for medicines. With the ever-expanding array of medications available in the market, finding accurate and up-to-date information about specific drugs can be a daunting task. Medicare aims to streamline this process by providing users with a comprehensive and user-friendly platform that enables efficient searching and retrieval of relevant medicine information.

The application employs advanced search algorithms and an extensive database, continuously updated with the latest medical knowledge and regulatory guidelines, to deliver accurate and reliable results. Medicare offers users a range of features, including detailed medication profiles, drug interactions, dosage instructions, and adverse effects, empowering them to make informed decisions about their healthcare.

One of the key features of Medicare is its intuitive and user-centric interface, which allows for easy navigation and seamless information retrieval. Users can search for medicines using various criteria such as brand name, generic name, indications, or therapeutic class.

In conclusion, Medicare is a state-of-the-art medicine searching application that empowers users to access accurate and comprehensive information about medications quickly and effortlessly. By combining a robust database, advanced search capabilities, and user-friendly features, Medicare aims to transform the way people search for medicines, promoting patient safety, informed decision-making, and improved healthcare outcomes.

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**INTRODUCTION**

Introducing our cutting-edge Medicine Searching App, a comprehensive and user-friendly platform designed to simplify the process of finding accurate and up-to-date information about medicines. With a focus on accuracy, accessibility, and enhancing the user experience, our application aims to empower individuals to make informed decisions regarding their healthcare.

With the expertise of medical professionals and advanced search algorithms, our app provides a wealth of information about medications at your fingertips. You can effortlessly explore detailed medication profiles, including indications, dosage instructions, drug interactions, contraindications, and potential adverse effects. We understand the importance of reliable information, which is why we continuously update our extensive database with the latest medical knowledge and regulatory guidelines.

In today's rapidly evolving healthcare landscape, the availability of a vast array of medications has made it increasingly challenging for individuals to access accurate and reliable information about medicines. Whether you are a healthcare professional seeking the latest drug guidelines or a patient trying to understand your prescribed medication, navigating through this sea of information can be overwhelming. That's where our revolutionary Medicine Searching App comes into play.

**SUMMARY OF APPLICATION**

Provide Accurate and Comprehensive Information: The primary objective of the medicine searching application is to deliver accurate and up-to-date information about medicines, including their indications, dosage instructions, interactions, contraindications, and adverse effects.

Enhance User Experience: The application should prioritize user experience by offering a user-friendly interface, intuitive navigation, and efficient search capabilities. It should be easy to use, even for individuals with limited technological proficiency.

Ensure Accessibility: The application should be accessible to a wide range of users, including those with visual impairments or other accessibility needs. It should adhere to accessibility standards

Stay Updated with Latest Medical Knowledge: The application should have mechanisms in place to ensure that the medicine database is regularly updated with the latest medical knowledge, including new drugs, dosage guidelines, safety warnings, and regulatory information.

Offer Advanced Search Functionality: The application should provide advanced search capabilities, allowing users to search for medicines using various criteria such as brand name, generic name, therapeutic class, indications, and more. The search algorithm should be robust and efficient, delivering accurate and relevant results.

Facilitate Medication Management: The application should support medication management by offering features such as personalized medication reminders, dosage tracking, and the ability to create medication schedules. These features can help users adhere to their prescribed regimens and improve medication compliance.

Promote Collaboration with Healthcare Professionals: The application should facilitate seamless communication and collaboration between users and healthcare professionals. It should enable users to easily share their medication history, search results, and other relevant information with healthcare providers, promoting more effective and personalized care.

Ensure Privacy and Data Security: Protecting user privacy and maintaining the security of personal health information should be a top priority. The application should adhere to strict data protection protocols and comply with relevant privacy regulations to instill user confidence and trust.

Gather User Feedback and Continuous Improvement: The application should actively seek user feedback to identify areas for improvement and implement updates based on user needs and preferences. Regular updates and enhancements will ensure the application remains relevant and effective in meeting user expectations.

Support Multiple Platforms: The application should be available on multiple platforms, such as mobile devices (iOS and Android) and web browsers, to cater to a wide range of users and provide flexibility in accessing medicine information.

By focusing on these objectives, a medicine searching application can offer a comprehensive, user-friendly, and reliable platform for accessing accurate medicine information, ultimately improving healthcare decision-making and patient outcomes.

**BACKGROUND OF APP**

The existing system for medicine searching typically involves multiple sources of information, such as printed drug reference books, online medical databases, and general search engines. Here is an overview of the components of the existing system:

Printed Drug Reference Books: In traditional healthcare settings, healthcare professionals often rely on printed drug reference books, such as the Physicians' Desk Reference (PDR), to access information about medications. These books contain detailed profiles of drugs, including indications, dosages, side effects, and contraindications

Online Medical Databases: Several online medical databases exist, such as PubMed, UpToDate, and MedlinePlus, which provide extensive information about medicines. These databases often include peer-reviewed research articles, clinical guidelines, and drug monographs.

General Search Engines: Many individuals turn to general search engines like Google to search for medicine-related information. While search engines can provide a wide range of results, they may not always yield accurate or reliable information.

Mobile Applications: Several medicine searching applications are available on mobile platforms, aiming to provide accessible and convenient access to medicine information. These applications often offer features such as drug databases, search functionality, dosage calculators, and pill identification tools.

Overall, the existing system for medicine searching relies on a combination of printed references, online databases, general search engines, and mobile applications. However, these sources may have limitations in terms of accessibility, accuracy, and ease of use.

Centralized Medicine Database: The proposed system incorporates a centralized and regularly updated medicine database that houses a vast collection of accurate and reliable information about medications.

Advanced Search Functionality: The proposed app provides advanced search capabilities, enabling users to search for medicines using various criteria, such as brand name, generic name, therapeutic class, indications, and more.

Intuitive User Interface: The proposed app offers a user-friendly and intuitive interface that enhances the overall user experience. The interface is designed to be accessible and easy to navigate, catering to individuals with varying levels of technological proficiency.

Personalized Medication Management: The proposed system goes beyond basic medicine searching and integrates features for personalized medication management. Users can set medication reminders, track dosages, and create medication schedules within the app. These functionalities improve medication adherence and help users stay on top of their prescribed regimens.

Comprehensive Medication Profiles: Each medication in the app's database is accompanied by a comprehensive profile that includes detailed information about the drug's uses, side effects, precautions, and other relevant details.

Integration with Healthcare Professionals: The proposed system enables seamless communication and collaboration between users and healthcare professionals. Users can easily share their medication history, search results, and other relevant information with their healthcare providers. This integration promotes more effective and personalized care.

Privacy and Security Measures: The proposed system incorporates robust privacy and security measures to protect users' personal health information.

## **REQUIREMENTS OF APPLICATION**

**Software Requirements:**

* Front-end: Python programming language will be used to develop the user interface of the application.
* Back-end: You can choose to use either Python or SQLite3 as the backend for storing and retrieving data.
* Operating System: The application is compatible with Windows 10.
* Integrated Development Environment (IDE): PyCharm is an excellent choice for developing Python applications and provides a comprehensive set of tools and features for efficient development.

**Hardware Requirements:**

* Processor: An Intel Core i5 processor or higher will provide sufficient processing power for running the application smoothly.
* RAM: 8GB of RAM is recommended to ensure optimal performance while running the application.
* Hard Disk: A minimum of 150GB of free storage space is required to install the necessary software and store the application files.

These hardware and software requirements should meet the needs of developing and running the reminder application effectively.

## **Design-Algorithm and Flowchart**

Create an account

Login page

Home page

User details

Required Details

Information

**SCREENSHOTS OF APPLICATION**



Fig. 1 Account Page

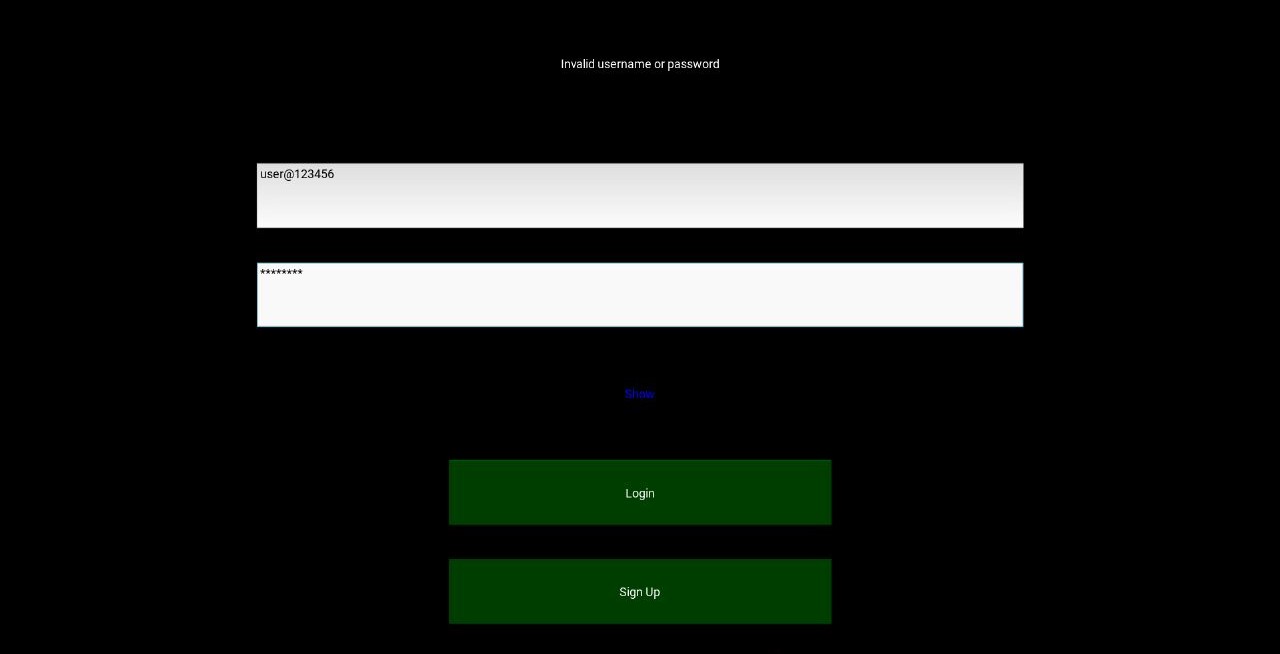


Fig. 2 Add New User Page

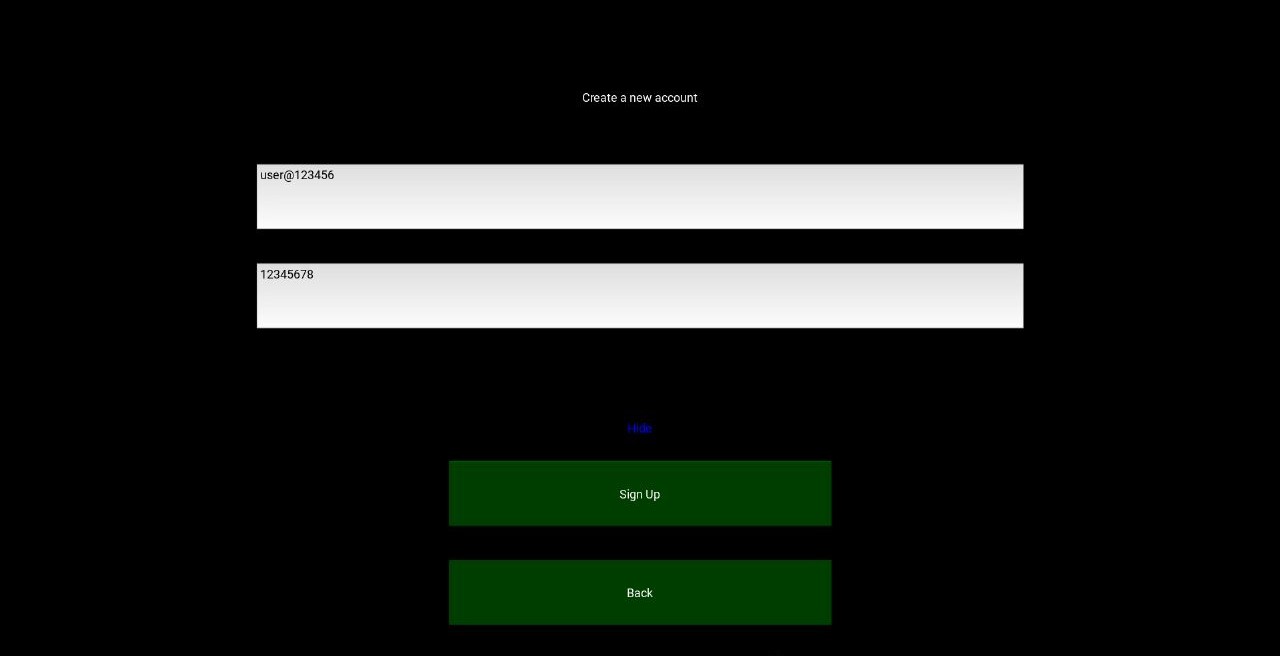


Fig. 3 User New Account Page

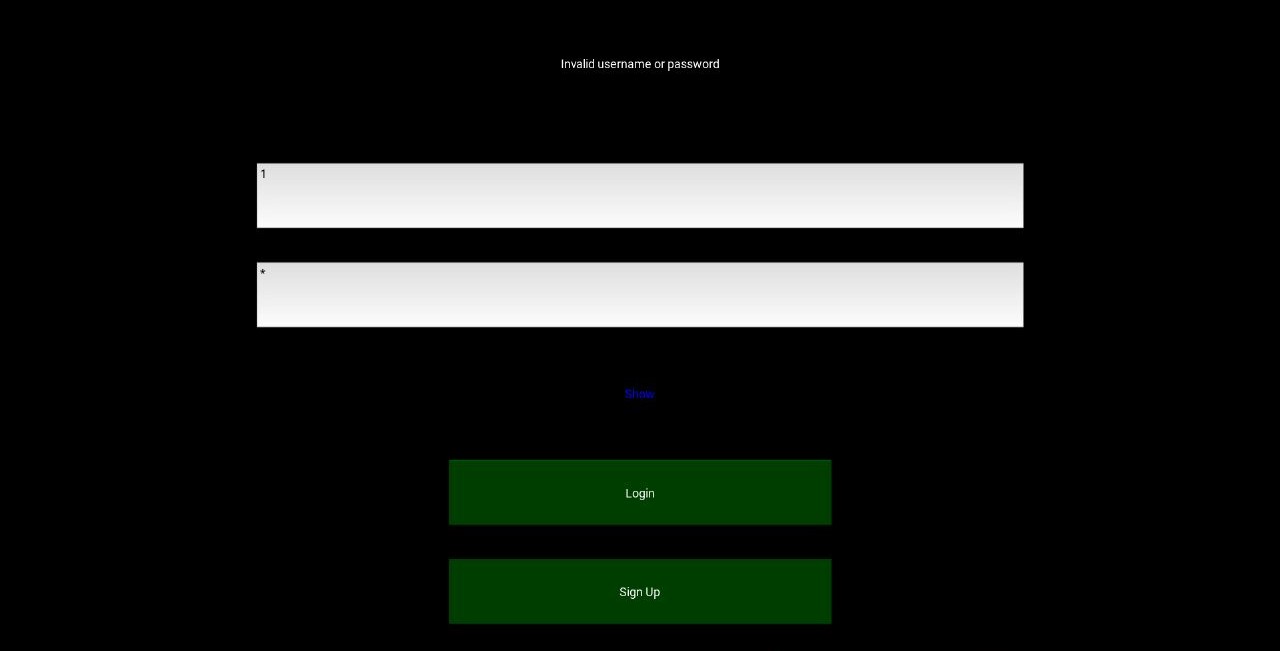


Fig. 4 Invalid username or password

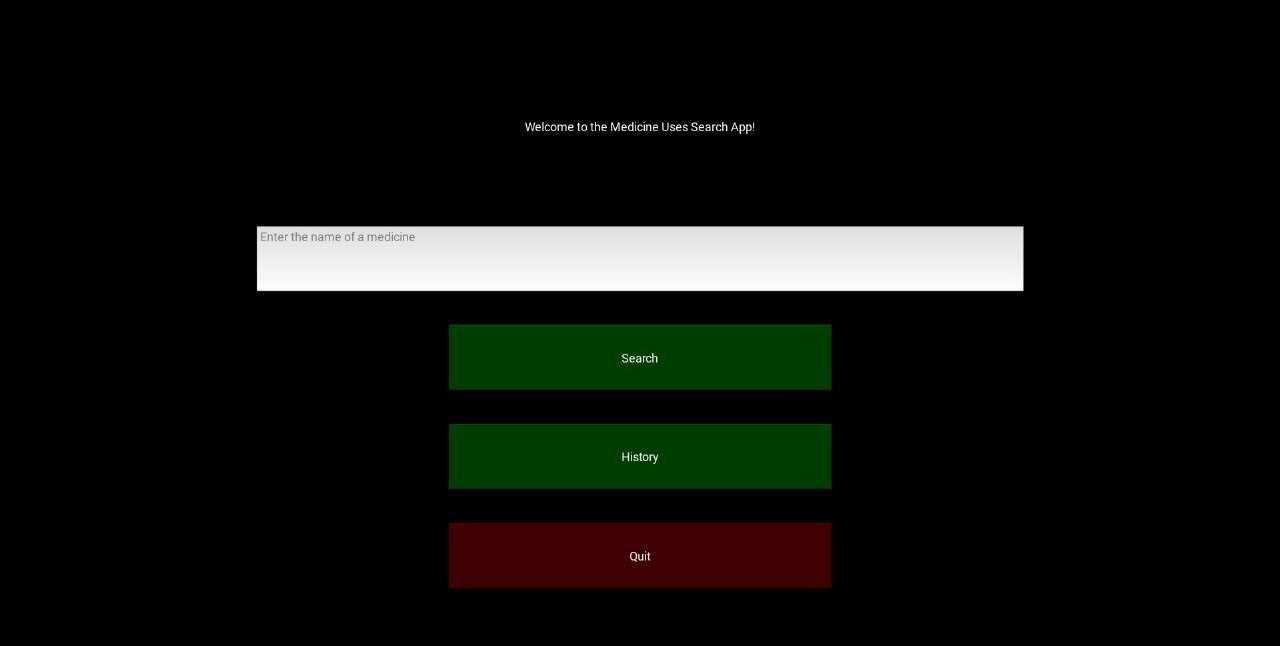


Fig. 5 Medicine Search Page

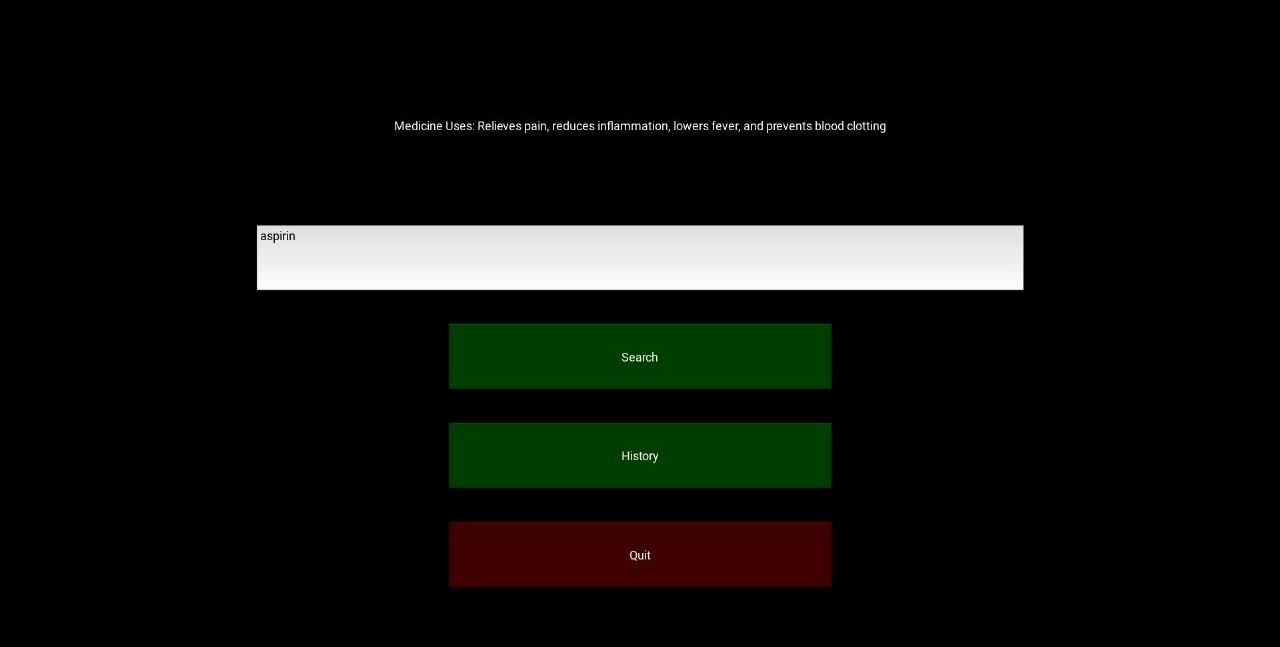


Fig. 6 Display the Medicine Name

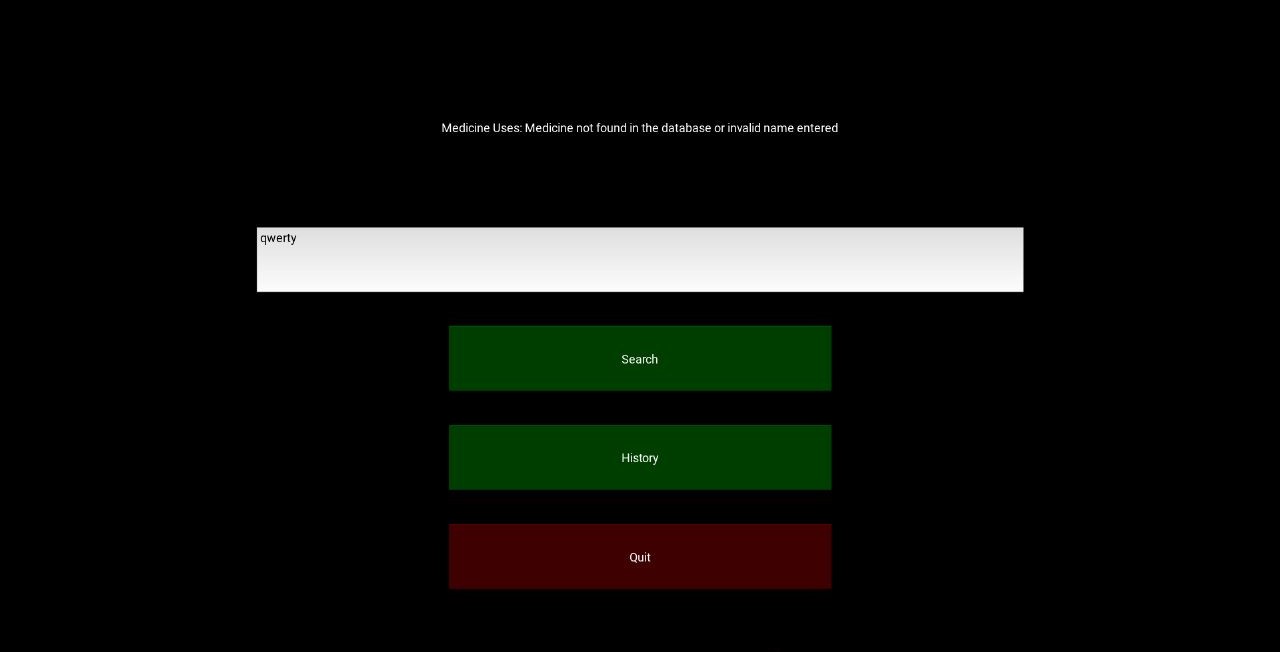


Fig. 7 Invalid Page

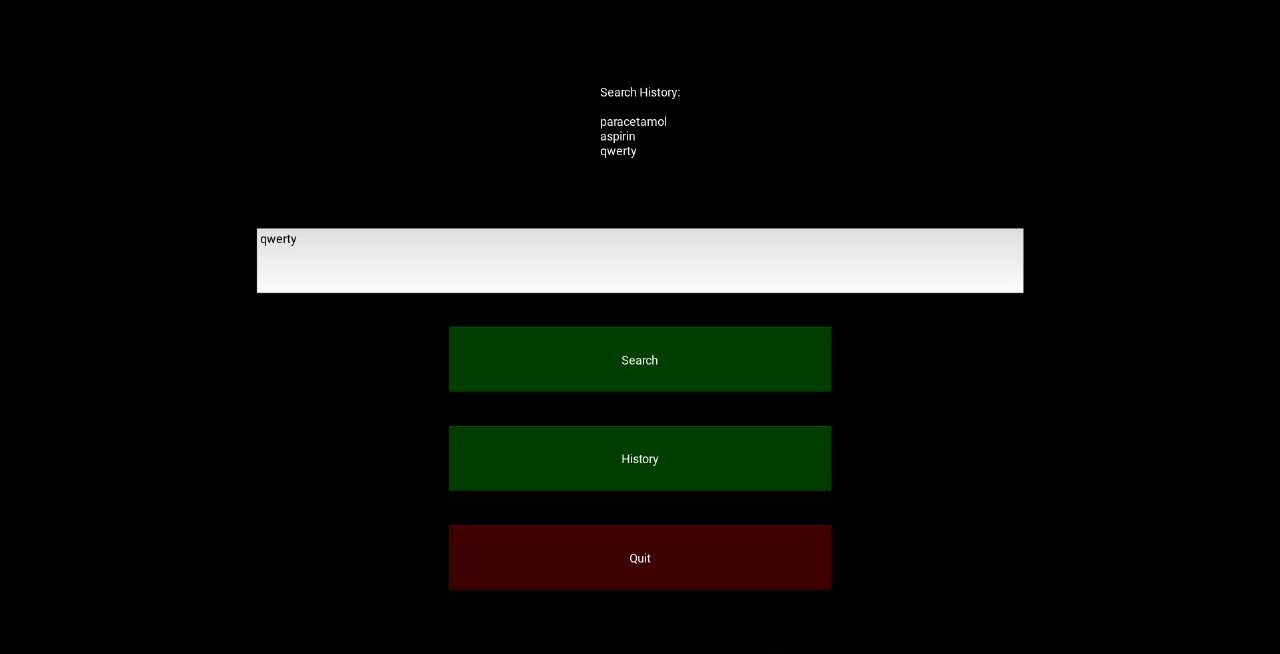


Fig. 8 Search History Page

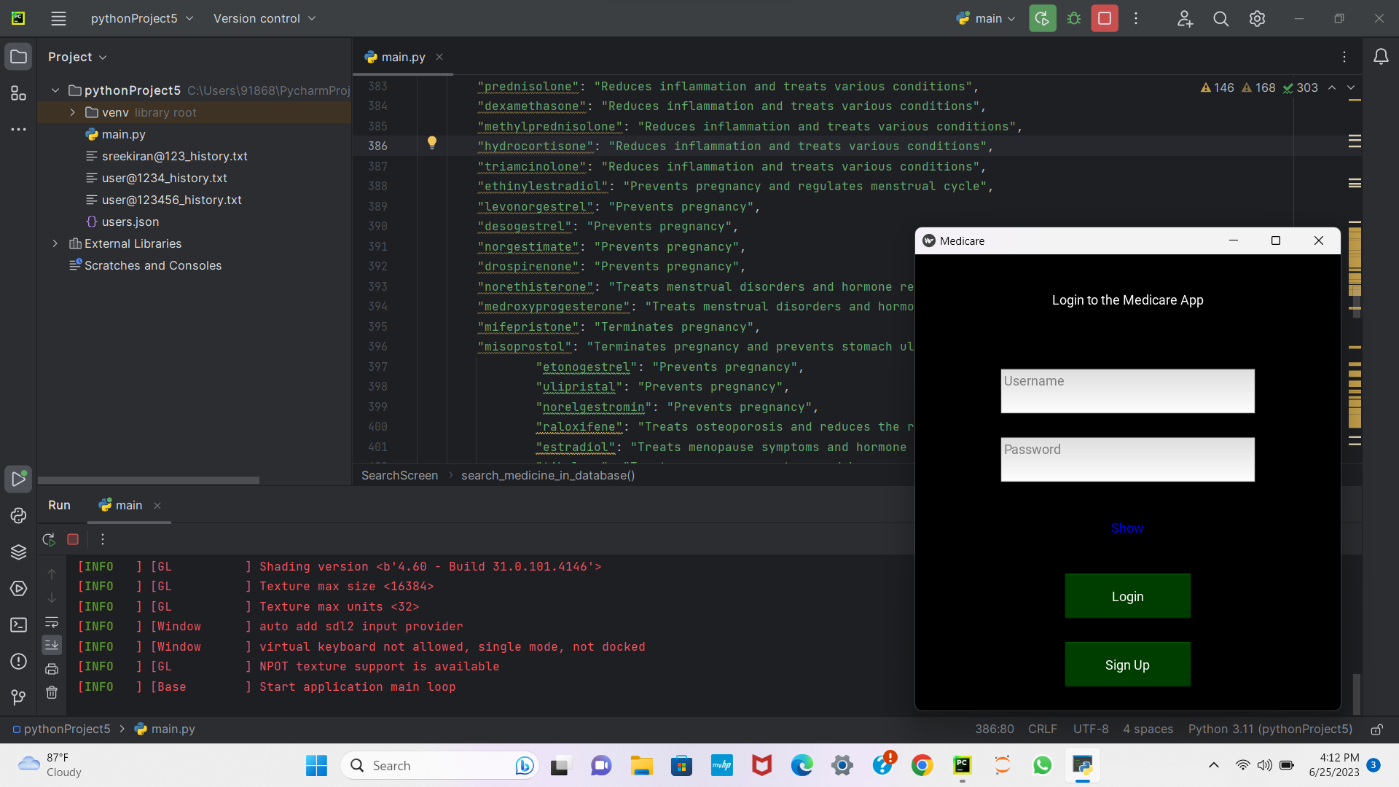


Fig. 9 Welcome Page Medicine Uses Search App

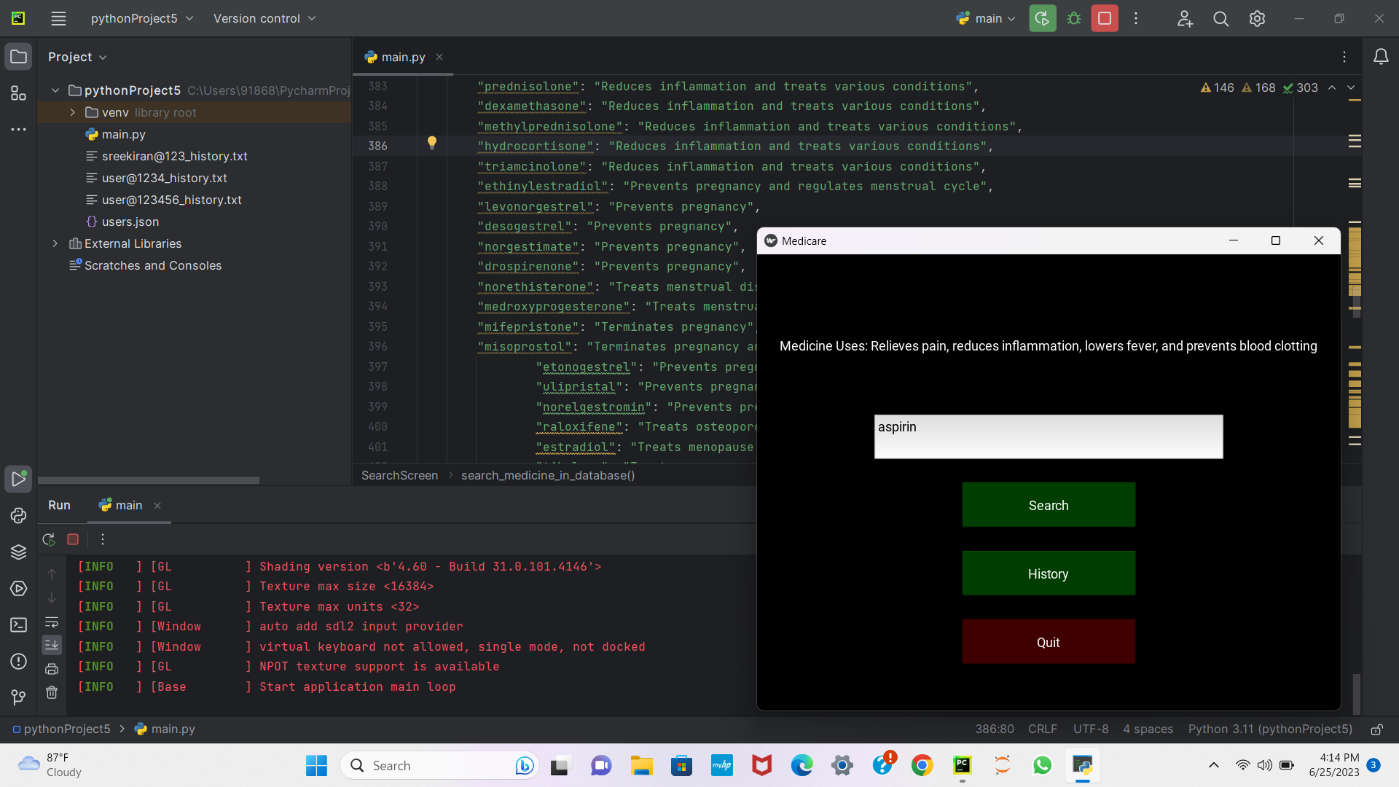


Fig. 10 Medicine search Page

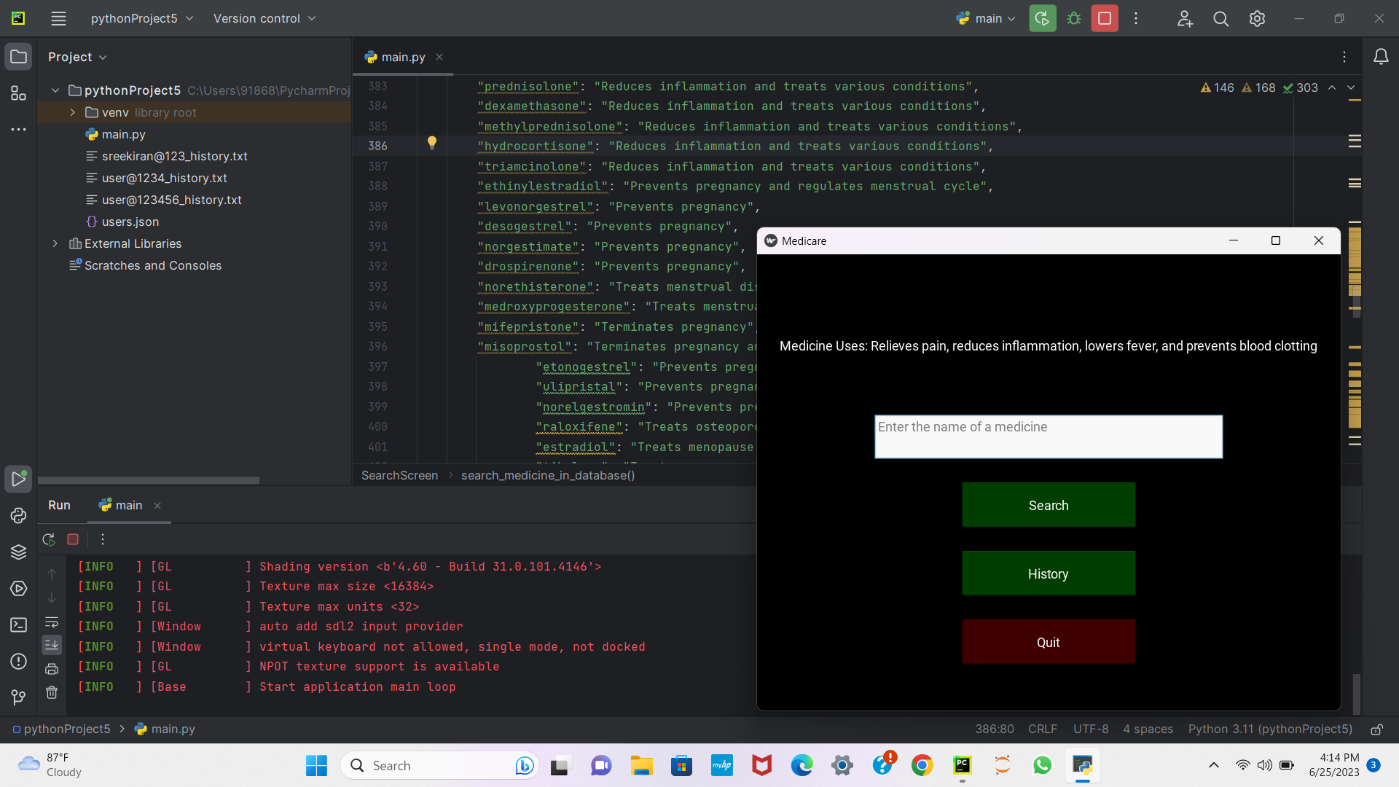


Fig. 11 Exit Page

**APP’S CODE**

import kivy

from kivy.app import App

from kivy.uix.label import Label

from kivy.uix.textinput import TextInput

from kivy.uix.button import Button

from kivy.uix.floatlayout import FloatLayout

from kivy.uix.screenmanager import ScreenManager, Screen

from kivy.core.window import Window

import json

class LoginScreen(Screen):

def \_init\_(self, \*\*kwargs):

super(LoginScreen, self).\_init\_(\*\*kwargs)

layout = FloatLayout()

self.label = Label(

text="Login to the Medicare App",

pos\_hint={'center\_x': 0.5, 'center\_y': 0.9},

size\_hint=(0.6, 0.1)

)

layout.add\_widget(self.label)

self.username\_input = TextInput(

hint\_text="Username",

pos\_hint={'center\_x': 0.5, 'center\_y': 0.7},

size\_hint=(0.6, 0.1)

)

layout.add\_widget(self.username\_input)

self.password\_input = TextInput(

hint\_text="Password",

password=True,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.55},

size\_hint=(0.6, 0.1)

)

layout.add\_widget(self.password\_input)

self.password\_visibility\_button = Button(

text="Show",

on\_press=self.toggle\_password\_visibility,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.4},

size\_hint=(0.3, 0.1),

background\_color=(0, 0, 0, 0),

color=(0, 0, 1, 1)

)

layout.add\_widget(self.password\_visibility\_button)

login\_button = Button(

text="Login",

on\_press=self.login,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.25},

size\_hint=(0.3, 0.1),

background\_color=(0, 0.7, 0, 1),

color=(1, 1, 1, 1)

)

layout.add\_widget(login\_button)

sign\_up\_button = Button(

text="Sign Up",

on\_press=self.signup,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.1},

size\_hint=(0.3, 0.1),

background\_color=(0, 0.7, 0, 1),

color=(1, 1, 1, 1)

)

layout.add\_widget(sign\_up\_button)

self.add\_widget(layout)

def toggle\_password\_visibility(self, instance):

if self.password\_input.password:

self.password\_input.password = False

self.password\_visibility\_button.text = "Hide"

else:

self.password\_input.password = True

self.password\_visibility\_button.text = "Show"

def login(self, instance):

username = self.username\_input.text.strip()

password = self.password\_input.text.strip()

if username in app.users and app.users[username] == password:

self.manager.current = "search"

app.current\_user = username # Store the current user

app.current\_user\_history\_file = f"{username}\_history.txt" # Set the current user's history file

else:

self.label.text = "Invalid username or password"

def signup(self, instance):

self.manager.current = "signup"

class SignUpScreen(Screen):

def \_init\_(self, \*\*kwargs):

super(SignUpScreen, self).\_init\_(\*\*kwargs)

layout = FloatLayout()

self.label = Label(

text="Create a new account",

pos\_hint={'center\_x': 0.5, 'center\_y': 0.85},

size\_hint=(0.6, 0.1)

)

layout.add\_widget(self.label)

self.username\_input = TextInput(

hint\_text="Username",

pos\_hint={'center\_x': 0.5, 'center\_y': 0.7},

size\_hint=(0.6, 0.1)

)

layout.add\_widget(self.username\_input)

self.password\_input = TextInput(

hint\_text="Password",

password=True,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.55},

size\_hint=(0.6, 0.1)

)

layout.add\_widget(self.password\_input)

self.password\_visibility\_button = Button(

text="Show",

on\_press=self.toggle\_password\_visibility,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.35},

size\_hint=(0.3, 0.1),

background\_color=(0, 0, 0, 0),

color=(0, 0, 1, 1)

)

layout.add\_widget(self.password\_visibility\_button)

back\_button = Button(

text="Back",

on\_press=self.go\_to\_login,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.1},

size\_hint=(0.3, 0.1),

background\_color=(0, 0.7, 0, 1),

color=(1, 1, 1, 1)

)

layout.add\_widget(back\_button)

sign\_up\_button = Button(

text="Sign Up",

on\_press=self.sign\_up,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.25},

size\_hint=(0.3, 0.1),

background\_color=(0, 0.7, 0, 1),

color=(1, 1, 1, 1)

)

layout.add\_widget(sign\_up\_button)

self.add\_widget(layout)

def toggle\_password\_visibility(self, instance):

if self.password\_input.password:

self.password\_input.password = False

self.password\_visibility\_button.text = "Hide"

else:

self.password\_input.password = True

self.password\_visibility\_button.text = "Show"

def go\_to\_login(self, instance):

self.manager.current = "login"

def sign\_up(self, instance):

username = self.username\_input.text.strip()

password = self.password\_input.text.strip()

if username and password:

app.users[username] = password

self.save\_user\_credentials()

self.manager.current = "login"

app.current\_user = username # Store the current user

app.current\_user\_history\_file = f"{username}\_history.txt" # Set the current user's history file

def save\_user\_credentials(self):

with open("users.json", "w") as file:

json.dump(app.users, file)

class SearchScreen(Screen):

def \_init\_(self, \*\*kwargs):

super(SearchScreen, self).\_init\_(\*\*kwargs)

layout = FloatLayout()

self.label = Label(

text="Welcome to the Medicare Search App!",

pos\_hint={'center\_x': 0.5, 'center\_y': 0.8},

size\_hint=(0.6, 0.1)

)

layout.add\_widget(self.label)

self.text\_input = TextInput(

hint\_text="Enter the name of a medicine",

pos\_hint={'center\_x': 0.5, 'center\_y': 0.6},

size\_hint=(0.6, 0.1)

)

layout.add\_widget(self.text\_input)

search\_button = Button(

text="Search",

on\_press=self.search\_medicine,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.45},

size\_hint=(0.3, 0.1),

background\_color=(0, 0.7, 0, 1),

color=(1, 1, 1, 1)

)

layout.add\_widget(search\_button)

history\_button = Button(

text="History",

on\_press=self.show\_history,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.3},

size\_hint=(0.3, 0.1),

background\_color=(0, 0.7, 0, 1),

color=(1, 1, 1, 1)

)

layout.add\_widget(history\_button)

quit\_button = Button(

text="Quit",

on\_press=self.quit\_app,

pos\_hint={'center\_x': 0.5, 'center\_y': 0.15},

size\_hint=(0.3, 0.1),

background\_color=(0.7, 0, 0, 1),

color=(1, 1, 1, 1)

)

layout.add\_widget(quit\_button)

self.add\_widget(layout)

def search\_medicine(self, instance):

medicine\_name = self.text\_input.text.strip()

medicine\_uses = self.search\_medicine\_in\_database(medicine\_name)

self.save\_search\_history(medicine\_name)

self.label.text = f"Medicine Uses: {medicine\_uses}"

def search\_medicine\_in\_database(self, medicine\_name):

# Medicine database

medicine\_database = {

"paracetamol": "Relieves pain and reduces fever",

"ibuprofen": "Relieves pain, reduces inflammation, and lowers fever",

"aspirin": "Relieves pain, reduces inflammation, lowers fever, and prevents blood clotting",

"amoxicillin": "Treats bacterial infections",

"azithromycin": "Treats respiratory and skin infections",

"ciprofloxacin": "Treats urinary tract and other bacterial infections",

"omeprazole": "Reduces stomach acid and treats acid reflux and ulcers",

"lansoprazole": "Reduces stomach acid and treats acid reflux and ulcers",

"ranitidine": "Reduces stomach acid and treats acid reflux and ulcers",

"metformin": "Controls blood sugar levels in diabetes",

"atorvastatin": "Lowers cholesterol levels",

"simvastatin": "Lowers cholesterol levels",

"levothyroxine": "Replaces or supplements thyroid hormone",

"escitalopram": "Treats depression and anxiety",

"sertraline": "Treats depression, anxiety, and panic disorder",

"citalopram": "Treats depression and anxiety",

"metoprolol": "Treats high blood pressure and heart-related conditions",

"amlodipine": "Treats high blood pressure and chest pain",

"hydrochlorothiazide": "Treats high blood pressure and reduces fluid retention",

"losartan": "Treats high blood pressure and heart failure",

"furosemide": "Treats fluid retention and high blood pressure",

"prednisone": "Reduces inflammation and treats various conditions",

"albuterol": "Relieves asthma symptoms and opens airways",

"diphenhydramine": "Relieves allergies, itching, and helps with sleep",

"dextromethorphan": "Suppresses cough",

"guaifenesin": "Relieves cough and loosens mucus",

"naproxen": "Relieves pain and reduces inflammation",

"fexofenadine": "Relieves allergies and reduces symptoms",

"fluticasone": "Reduces inflammation in the airways and treats nasal allergies",

"salbutamol": "Relieves asthma symptoms and opens airways",

"pantoprazole": "Reduces stomach acid and treats acid reflux and ulcers",

"gabapentin": "Treats seizures, nerve pain, and restless legs syndrome",

"clonazepam": "Treats seizures, panic disorder, and anxiety",

"diazepam": "Relieves anxiety, muscle spasms, and seizures",

"tramadol": "Relieves moderate to severe pain",

"codeine": "Relieves mild to moderate pain and suppresses cough",

"hydrocodone": "Relieves moderate to severe pain",

"oxycodone": "Relieves moderate to severe pain",

"morphine": "Relieves severe pain",

"warfarin": "Prevents blood clots",

"clopidogrel": "Prevents blood clots and reduces the risk of heart attacks and strokes",

"insulin": "Regulates blood sugar levels in diabetes",

"carvedilol": "Treats high blood pressure and heart failure",

"lorazepam": "Relieves anxiety, insomnia, and seizures",

"mirtazapine": "Treats depression and improves sleep",

"quetiapine": "Treats bipolar disorder and schizophrenia",

"haloperidol": "Treats psychotic disorders and severe behavior problems",

"duloxetine": "Treats depression, anxiety, and nerve pain",

"venlafaxine": "Treats depression, anxiety, and panic disorder",

"trazodone": "Treats depression and improves sleep",

"acetaminophen": "Relieves pain and reduces fever",

"diphenoxylate/atropine": "Treats diarrhea",

"clindamycin": "Treats bacterial infections",

"erythromycin": "Treats bacterial infections",

"fluconazole": "Treats fungal infections",

"cefalexin": "Treats bacterial infections",

"cefixime": "Treats bacterial infections",

"cephalexin": "Treats bacterial infections",

"amikacin": "Treats bacterial infections",

"ceftriaxone": "Treats bacterial infections",

"ceftazidime": "Treats bacterial infections",

"cefotaxime": "Treats bacterial infections",

"meropenem": "Treats bacterial infections",

"imipenem/cilastatin": "Treats bacterial infections",

"cefepime": "Treats bacterial infections",

"aztreonam": "Treats bacterial infections",

"gentamicin": "Treats bacterial infections",

"tobramycin": "Treats bacterial infections",

"amphotericin B": "Treats fungal infections",

"ketoconazole": "Treats fungal infections",

"miconazole": "Treats fungal infections",

"nystatin": "Treats fungal infections",

"fluoxetine": "Treats depression, obsessive-compulsive disorder, and panic disorder",

"bupropion": "Treats depression and aids smoking cessation",

"phenobarbital": "Controls seizures",

"phenytoin": "Controls seizures",

"carbamazepine": "Controls seizures and treats nerve pain",

"valproate": "Controls seizures and treats bipolar disorder",

"lithium": "Treats bipolar disorder",

"atomoxetine": "Treats attention-deficit hyperactivity disorder (ADHD)",

"olanzapine": "Treats bipolar disorder and schizophrenia",

"risperidone": "Treats bipolar disorder and schizophrenia",

"quinapril": "Treats high blood pressure and heart failure",

"lisinopril": "Treats high blood pressure and heart failure",

"enalapril": "Treats high blood pressure and heart failure",

"ramipril": "Treats high blood pressure and heart failure",

"captopril": "Treats high blood pressure and heart failure",

"nebivolol": "Treats high blood pressure and heart failure",

"metoprolol tartrate": "Treats high blood pressure and heart-related conditions",

"metoprolol succinate": "Treats high blood pressure and heart-related conditions",

"propranolol": "Treats high blood pressure, angina, and tremors",

"enoxaparin": "Prevents blood clots",

"dalteparin": "Prevents blood clots",

"rivaroxaban": "Prevents blood clots",

"apixaban": "Prevents blood clots",

"edoxaban": "Prevents blood clots",

"heparin": "Prevents blood clots",

"clozapine": "Treats schizophrenia",

"aripiprazole": "Treats bipolar disorder and schizophrenia",

"lamotrigine": "Controls seizures and treats bipolar disorder",

"topiramate": "Controls seizures and treats migraine",

"gabapentin enacarbil": "Treats restless legs syndrome and nerve pain",

"sumatriptan": "Treats migraine",

"duloxetine": "Treats depression, anxiety, and nerve pain",

"buprenorphine": "Treats moderate to severe pain and opioid addiction",

"methadone": "Treats moderate to severe pain and opioid addiction",

"citalopram": "Treats depression and anxiety",

"clomipramine": "Treats depression and obsessive-compulsive disorder",

"desvenlafaxine": "Treats depression and anxiety",

"doxepin": "Treats depression and anxiety",

"escitalopram": "Treats depression and anxiety",

"fluvoxamine": "Treats obsessive-compulsive disorder and anxiety",

"nortriptyline": "Treats depression",

"protriptyline": "Treats depression",

"trimipramine": "Treats depression",

"venlafaxine": "Treats depression, anxiety, and panic disorder",

"hydroxyzine": "Relieves itching, allergies, and anxiety",

"buspirone": "Treats anxiety",

"pregabalin": "Treats nerve pain and seizures",

"zolpidem": "Treats insomnia",

"diphenhydramine": "Relieves allergies, itching, and helps with sleep",

"chlorpheniramine": "Relieves allergies and allergic reactions",

"promethazine": "Relieves allergies and motion sickness",

"hydroxyzine": "Relieves itching, allergies, and anxiety",

"fexofenadine": "Relieves allergies and reduces symptoms",

"cetirizine": "Relieves allergies and reduces symptoms",

"levocetirizine": "Relieves allergies and reduces symptoms",

"loratadine": "Relieves allergies and reduces symptoms",

"mometasone": "Treats nasal allergies and skin conditions",

"fluticasone": "Reduces inflammation in the airways and treats nasal allergies",

"budesonide": "Reduces inflammation in the airways and treats nasal allergies",

"beclomethasone": "Reduces inflammation in the airways and treats nasal allergies",

"montelukast": "Treats asthma and allergies",

"bimatoprost": "Treats glaucoma and promotes eyelash growth",

"timolol": "Treats glaucoma and reduces intraocular pressure",

"brimonidine": "Treats glaucoma and reduces intraocular pressure",

"travoprost": "Treats glaucoma and reduces intraocular pressure",

"dorzolamide": "Treats glaucoma and reduces intraocular pressure",

"acetazolamide": "Treats glaucoma and reduces intraocular pressure",

"latanoprost": "Treats glaucoma and reduces intraocular pressure",

"pilocarpine": "Treats glaucoma and reduces intraocular pressure",

"prednisolone": "Reduces inflammation and treats various conditions",

"dexamethasone": "Reduces inflammation and treats various conditions",

"methylprednisolone": "Reduces inflammation and treats various conditions",

"hydrocortisone": "Reduces inflammation and treats various conditions",

"triamcinolone": "Reduces inflammation and treats various conditions",

"ethinylestradiol": "Prevents pregnancy and regulates menstrual cycle",

"levonorgestrel": "Prevents pregnancy",

"desogestrel": "Prevents pregnancy",

"norgestimate": "Prevents pregnancy",

"drospirenone": "Prevents pregnancy",

"norethisterone": "Treats menstrual disorders and hormone replacement therapy",

"medroxyprogesterone": "Treats menstrual disorders and hormone replacement therapy",

"mifepristone": "Terminates pregnancy",

"misoprostol": "Terminates pregnancy and prevents stomach ulcers",

"etonogestrel": "Prevents pregnancy",

"ulipristal": "Prevents pregnancy",

"norelgestromin": "Prevents pregnancy",

"raloxifene": "Treats osteoporosis and reduces the risk of breast cancer",

"estradiol": "Treats menopause symptoms and hormone replacement therapy",

"tibolone": "Treats menopause symptoms and hormone replacement therapy",

"progesterone": "Treats menstrual disorders and hormone replacement therapy",

"dienogest": "Treats endometriosis",

"danazol": "Treats endometriosis and fibrocystic breast disease",

"cyclosporine": "Suppresses the immune system and prevents organ rejection",

"tacrolimus": "Suppresses the immune system and prevents organ rejection",

"sirolimus": "Suppresses the immune system and prevents organ rejection",

"mycophenolate": "Suppresses the immune system and prevents organ rejection",

"azathioprine": "Suppresses the immune system and prevents organ rejection",

"cyclophosphamide": "Treats cancer and autoimmune diseases",

"methotrexate": "Treats cancer and autoimmune diseases",

"fluorouracil": "Treats cancer",

"capecitabine": "Treats cancer",

"paclitaxel": "Treats cancer",

"docetaxel": "Treats cancer",

"cisplatin": "Treats cancer",

"carboplatin": "Treats cancer",

"oxaliplatin": "Treats cancer",

"gemcitabine": "Treats cancer",

"vinorelbine": "Treats cancer",

"vincristine": "Treats cancer",

"vinblastine": "Treats cancer",

"etoposide": "Treats cancer",

"pemetrexed": "Treats cancer",

"irinotecan": "Treats cancer",

"rituximab": "Treats cancer and autoimmune diseases",

"trastuzumab": "Treats cancer",

"bevacizumab": "Treats cancer",

"cetuximab": "Treats cancer",

"panitumumab": "Treats cancer",

"sunitinib": "Treats cancer",

"sorafenib": "Treats cancer",

"imatinib": "Treats cancer",

"dasatinib": "Treats cancer",

"erlotinib": "Treats cancer",

"gefitinib": "Treats cancer",

"lapatinib": "Treats cancer",

"crizotinib": "Treats cancer",

"everolimus": "Treats cancer",

"temsirolimus": "Treats cancer",

"axitinib": "Treats cancer",

"cabozantinib": "Treats cancer",

"nivolumab": "Treats cancer",

"pembrolizumab": "Treats cancer",

"ipilimumab": "Treats cancer",

"atezolizumab": "Treats cancer",

"durvalumab": "Treats cancer",

"avelumab": "Treats cancer",

"thioguanine": "Treats cancer",

"procarbazine": "Treats cancer",

"hydroxyurea": "Treats cancer",

"mercaptopurine": "Treats cancer",

"altretamine": "Treats cancer",

"bendamustine": "Treats cancer",

"bleomycin": "Treats cancer",

"mitomycin": "Treats cancer",

"mitoxantrone": "Treats cancer",

"epirubicin": "Treats cancer",

"idarubicin": "Treats cancer",

"daunorubicin": "Treats cancer",

"doxorubicin": "Treats cancer",

"pegfilgrastim": "Stimulates the production of white blood cells",

"filgrastim": "Stimulates the production of white blood cells",

"epoetin alfa": "Stimulates the production of red blood cells",

"darbepoetin alfa": "Stimulates the production of red blood cells",

"ferrous sulfate": "Treats iron deficiency anemia",

"folic acid": "Supplements folate and treats folate deficiency",

"cyanocobalamin": "Supplements vitamin B12 and treats B12 deficiency",

"ergocalciferol": "Supplements vitamin D and treats vitamin D deficiency",

"calcitriol": "Supplements vitamin D and treats vitamin D deficiency",

"phytomenadione": "Supplements vitamin K and treats vitamin K deficiency",

"phentermine": "Suppresses appetite and aids weight loss",

"orlistat": "Aids weight loss by blocking fat absorption",

"liraglutide": "Aids weight loss and regulates blood sugar levels",

"metformin": "Controls blood sugar levels in diabetes",

"insulin": "Regulates blood sugar levels in diabetes",

"sitagliptin": "Regulates blood sugar levels in diabetes",

"empagliflozin": "Regulates blood sugar levels in diabetes",

"canagliflozin": "Regulates blood sugar levels in diabetes",

"dapagliflozin": "Regulates blood sugar levels in diabetes",

"gliclazide": "Regulates blood sugar levels in diabetes",

"glimepiride": "Regulates blood sugar levels in diabetes",

"glipizide": "Regulates blood sugar levels in diabetes",

"linagliptin": "Regulates blood sugar levels in diabetes",

"saxagliptin": "Regulates blood sugar levels in diabetes",

"vildagliptin": "Regulates blood sugar levels in diabetes",

"rosiglitazone": "Regulates blood sugar levels in diabetes",

"pioglitazone": "Regulates blood sugar levels in diabetes",

"repaglinide": "Regulates blood sugar levels in diabetes",

"acarbose": "Regulates blood sugar levels in diabetes",

"dulaglutide": "Regulates blood sugar levels in diabetes",

"exenatide": "Regulates blood sugar levels in diabetes",

"semaglutide": "Regulates blood sugar levels in diabetes",

"insulin glargine": "Regulates blood sugar levels in diabetes",

"insulin degludec": "Regulates blood sugar levels in diabetes",

"insulin lispro": "Regulates blood sugar levels in diabetes",

"insulin aspart": "Regulates blood sugar levels in diabetes",

"insulin glulisine": "Regulates blood sugar levels in diabetes",

"insulin human": "Regulates blood sugar levels in diabetes",

"insulin isophane": "Regulates blood sugar levels in diabetes",

"insulin regular": "Regulates blood sugar levels in diabetes",

"alendronate": "Treats osteoporosis and prevents bone loss",

"risedronate": "Treats osteoporosis and prevents bone loss",

"ibandronate": "Treats osteoporosis and prevents bone loss",

"zoledronic acid": "Treats osteoporosis and prevents bone loss",

"denosumab": "Treats osteoporosis and prevents bone loss",

"calcitonin": "Treats osteoporosis and prevents bone loss",

"raloxifene": "Treats osteoporosis and reduces the risk of breast cancer",

"testosterone": "Supplements testosterone and treats testosterone deficiency",

"estradiol": "Treats menopause symptoms and hormone replacement therapy",

"levothyroxine": "Replaces or supplements thyroid hormone",

"liothyronine": "Replaces or supplements thyroid hormone",

"methimazole": "Treats hyperthyroidism",

"propylthiouracil": "Treats hyperthyroidism",

"hydroxychloroquine": "Treats malaria and autoimmune diseases",

"chloroquine": "Treats malaria and autoimmune diseases",

"ivermectin": "Treats parasitic infections",

"mebendazole": "Treats parasitic infections",

"praziquantel": "Treats parasitic infections",

"pyrimethamine": "Treats malaria and parasitic infections",

"quinine": "Treats malaria and muscle cramps",

"melatonin": "Regulates sleep-wake cycle and treats insomnia",

"zolpidem": "Treats insomnia",

"diphenhydramine": "Relieves allergies, itching, and helps with sleep",

"cetirizine": "Relieves allergies and reduces symptoms",

"loratadine": "Relieves allergies and reduces symptoms",

"fexofenadine": "Relieves allergies and reduces symptoms",

"montelukast": "Treats asthma and allergies",

"fluticasone": "Reduces inflammation in the airways and treats nasal allergies",

"budesonide": "Reduces inflammation in the airways and treats asthma",

"beclomethasone": "Reduces inflammation in the airways and treats asthma",

"mometasone": "Reduces inflammation in the airways and treats asthma",

"salbutamol": "Relieves asthma symptoms and opens airways",

"formoterol": "Relieves asthma symptoms and opens airways",

"salmeterol": "Relieves asthma symptoms and opens airways",

"ipratropium": "Relieves asthma symptoms and opens airways",

"tiotropium": "Relieves asthma symptoms and opens airways",

"glycopyrrolate": "Relieves asthma symptoms and opens airways",

"theophylline": "Relaxes the airway muscles and treats asthma",

"methylxanthines": "Relaxes the airway muscles and treats asthma",

"mupirocin": "Treats skin infections and prevents infection in wounds",

"clotrimazole": "Treats fungal infections",

"terbinafine": "Treats fungal infections",

"ketoconazole": "Treats fungal infections",

"fluconazole": "Treats fungal infections",

"cefuroxime": "Treats bacterial infections",

"cefixime": "Treats bacterial infections",

"ceftriaxone": "Treats bacterial infections",

"cefotaxime": "Treats bacterial infections",

"cefpodoxime": "Treats bacterial infections",

"ceftazidime": "Treats bacterial infections",

"cefepime": "Treats bacterial infections",

"meropenem": "Treats bacterial infections",

"imipenem": "Treats bacterial infections",

"doripenem": "Treats bacterial infections",

"ertapenem": "Treats bacterial infections",

"vancomycin": "Treats bacterial infections",

"linezolid": "Treats bacterial infections",

"daptomycin": "Treats bacterial infections",

"tigecycline": "Treats bacterial infections",

"ciprofloxacin": "Treats bacterial infections",

"levofloxacin": "Treats bacterial infections",

"moxifloxacin": "Treats bacterial infections",

"ofloxacin": "Treats bacterial infections",

"amoxicillin": "Treats bacterial infections",

"amoxicillin-clavulanate": "Treats bacterial infections",

"ampicillin": "Treats bacterial infections",

"ampicillin-sulbactam": "Treats bacterial infections",

"piperacillin": "Treats bacterial infections",

"piperacillin-tazobactam": "Treats bacterial infections",

"tetracycline": "Treats bacterial infections",

"doxycycline": "Treats bacterial infections",

"minocycline": "Treats bacterial infections",

"gentamicin": "Treats bacterial infections",

"tobramycin": "Treats bacterial infections",

"amikacin": "Treats bacterial infections",

"streptomycin": "Treats bacterial infections",

"trimethoprim-sulfamethoxazole": "Treats bacterial infections",

"nitrofurantoin": "Treats urinary tract infections",

"phenazopyridine": "Relieves urinary tract pain and discomfort",

"furosemide": "Treats fluid retention and high blood pressure",

"hydrochlorothiazide": "Treats high blood pressure and reduces fluid retention",

"spironolactone": "Treats high blood pressure and reduces fluid retention",

"metoprolol": "Treats high blood pressure and heart-related conditions",

"atenolol": "Treats high blood pressure and heart-related conditions",

"carvedilol": "Treats high blood pressure and heart failure",

"lisinopril": "Treats high blood pressure and heart failure",

"enalapril": "Treats high blood pressure and heart failure",

"losartan": "Treats high blood pressure and heart failure",

"valsartan": "Treats high blood pressure and heart failure",

"amlodipine": "Treats high blood pressure and chest pain",

"felodipine": "Treats high blood pressure and chest pain",

"diltiazem": "Treats high blood pressure and chest pain",

"verapamil": "Treats high blood pressure and chest pain",

"isosorbide mononitrate": "Treats chest pain and heart failure",

"digoxin": "Treats heart failure and irregular heartbeat",

"amiodarone": "Treats irregular heartbeat",

"warfarin": "Prevents blood clots",

"clopidogrel": "Prevents blood clots and reduces the risk of heart attacks and strokes",

"rivaroxaban": "Prevents blood clots",

"apixaban": "Prevents blood clots",

"dabigatran": "Prevents blood clots",

"heparin": "Prevents blood clots",

"enoxaparin": "Prevents blood clots",

"fondaparinux": "Prevents blood clots",

"aspirin": "Relieves pain, reduces inflammation, lowers fever, and prevents blood clotting",

"naproxen": "Relieves pain and reduces inflammation",

"diclofenac": "Relieves pain and reduces inflammation",

"ibuprofen": "Relieves pain, reduces inflammation, and lowers fever",

"acetaminophen": "Relieves pain and reduces fever",

"morphine": "Relieves severe pain",

"oxycodone": "Relieves moderate to severe pain",

"hydrocodone": "Relieves moderate to severe pain",

"tramadol": "Relieves moderate to severe pain",

"codeine": "Relieves mild to moderate pain and suppresses cough",

"gabapentin": "Treats seizures, nerve pain, and restless legs syndrome",

"pregabalin": "Treats seizures, nerve pain, and fibromyalgia",

"carbamazepine": "Treats seizures, nerve pain, and bipolar disorder",

"phenytoin": "Treats seizures and epilepsy",

"valproic acid": "Treats seizures, bipolar disorder, and migraines",

"lamotrigine": "Treats seizures, bipolar disorder, and migraines",

"topiramate": "Treats seizures, migraines, and bipolar disorder",

"levetiracetam": "Treats seizures and epilepsy",

"phenobarbital": "Treats seizures and epilepsy",

"diazepam": "Relieves anxiety, muscle spasms, and seizures",

"lorazepam": "Relieves anxiety, insomnia, and seizures",

"alprazolam": "Treats anxiety and panic disorder",

"clonazepam": "Treats seizures, panic disorder, and anxiety",

"buspirone": "Treats anxiety",

"escitalopram": "Treats depression and anxiety",

"sertraline": "Treats depression, anxiety, and panic disorder",

"citalopram": "Treats depression and anxiety",

"fluoxetine": "Treats depression, anxiety",

}

# Rest of the medicine database...

if medicine\_name.lower() in medicine\_database:

return medicine\_database[medicine\_name.lower()]

else:

return "Medicine not found in the database or invalid name entered"

def save\_search\_history(self, medicine\_name):

with open(app.current\_user\_history\_file, "a") as file:

file.write(f"{medicine\_name}\n")

def show\_history(self, instance):

try:

with open(app.current\_user\_history\_file, "r") as file:

history = file.readlines()

if history:

user\_history\_text = "Search History:\n\n" + "".join(history)

else:

user\_history\_text = "No search history found for the current user."

except FileNotFoundError:

user\_history\_text = "No search history found for the current user."

self.label.text = user\_history\_text

def quit\_app(self, instance):

App.get\_running\_app().stop()

class Medicare(App):

def \_init\_(self, \*\*kwargs):

super(Medicare, self).\_init\_(\*\*kwargs)

self.users = {}

self.current\_user = ""

self.current\_user\_history\_file = ""

def build(self):

self.load\_user\_credentials()

sm = ScreenManager()

sm.add\_widget(LoginScreen(name="login"))

sm.add\_widget(SignUpScreen(name="signup"))

sm.add\_widget(SearchScreen(name="search"))

return sm

def load\_user\_credentials(self):

try:

with open("users.json", "r") as file:

self.users = json.load(file)

except FileNotFoundError:

self.users = {}

if \_name\_ == "\_main\_":

Window.size = (400, 600)

app = Medicare()

app.run()

**HANDLING ERRORS**

Here are some general steps to handle errors effectively:

Identify Potential Error Points: Review your code and identify areas where errors could occur. These can include user input, file operations, database interactions, network requests, etc.

Implement Error Handling Mechanisms: Use try-except blocks to catch and handle specific types of exceptions that may occur. For example:

try:

# Code that may raise an exception except ExceptionType:

# Handle the specific exception

Replace ExceptionType with the specific type of exception you want to handle, such as ValueError, FileNotFoundError, DatabaseError, etc.

Display Meaningful Error Messages: When an exception is caught, display an informative error message to the user. Include details about the error and possible solutions. For example:

try:

# Code that may raise an exception except ValueError:

print("Invalid input! Please enter a valid value.")

Logging: Implement logging mechanisms to record errors and exceptions. Use a logging library to write error logs to a file or a log management system. Include relevant information like the error message, timestamp, and any relevant context details.

import logging

logging.basicConfig(filename='error.log', level=logging.ERROR) try:

# Code that may raise an exception except Exception as e: logging.error(str(e))

Graceful Degradation: Handle expected errors gracefully and provide fallback options or alternative paths. For example, if a network request fails, display a message to the user indicating the issue and providing alternative options if available.

Thorough Testing: Test your application thoroughly to identify and fix any errors or bugs before releasing it. Create test cases to cover different scenarios and edge cases. Use automated testing frameworks to perform unit tests, integration tests, and user acceptance tests.

**CONCLUSION**

* The Medicare App represents a significant advancement in the field of medicine information access, offering a comprehensive and user-friendly platform for individuals seeking accurate and up-to-date information about medications. By addressing the limitations of the existing system, the proposed app provides a robust solution that prioritizes accuracy, accessibility, and user experience.
* With a centralized medicine database continuously updated with the latest medical knowledge and regulatory guidelines, users can rely on the app to access comprehensive medication profiles, including indications, dosage instructions, interactions, contraindications, and adverse effects.
* The Medicine Searching App goes beyond basic searching by incorporating personalized medication management features such as reminders, dosage tracking, and medication schedules. These functionalities enhance medication adherence and empower users to take control of their healthcare.
* The app also promotes collaboration between users and healthcare professionals, allowing for seamless communication and sharing of medication history and search results. This integration facilitates more personalized and effective care.
* Privacy and security measures are of utmost importance in the proposed app, ensuring that users' personal health information is protected and adhering to relevant privacy regulations.
* In conclusion, the Medicine Searching App revolutionizes the way individuals access medicine information. By offering accurate, reliable, and user-friendly features, it empowers users to make informed decisions, promote medication safety, and ultimately improve healthcare outcomes.

**FUTURE SCOPE**

* Drug Interaction Checker: Integrate a comprehensive drug interaction checker feature that allows users to check potential interactions between multiple medications, including prescription drugs, over-the-counter medications, and herbal supplements.
* Clinical Trials Information: Incorporate a section dedicated to providing information about ongoing clinical trials related to specific medications.
* Medication Reviews and Ratings: Enable users to provide reviews and ratings for medications they have used, allowing others to benefit from their experiences and insights.
* Health Tracking Integration: Integrate with popular health tracking apps and devices to gather additional health data, such as heart rate, sleep patterns, activity levels, and other relevant metrics
* Medication Price Comparison: Provide a feature that enables users to compare prices of medications across different pharmacies or online retailers.
* Natural Remedies and Alternative Medicine: Expand the app's database to include information about natural remedies, herbal supplements, and alternative medicine options.
* Medication Expiration Reminders: Implement a feature that reminds users when their medications are approaching their expiration dates.