



# **MedMaster**

(Medicine Recommender Website)

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## INTRODUCTION

Welcome to our Medicine Recommender Website presentation. In today's healthcare landscape, access to accurate and timely medical information is crucial for individuals seeking to manage their health effectively. Our Medicine Recommender Website aims to address this need by providing users with personalized recommendations for medications, based on their reported symptoms and health profile.

## PROBLEM STATEMENT

The problem lies in the difficulty individuals encounter when trying to differentiate between various diseases based on their symptoms. With symptoms often overlapping across different conditions, individuals may struggle to identify the underlying cause of their health issues. This can result in delayed diagnosis, inappropriate treatment, and compromised health outcomes.

## KEY FEATURES

- **Accurate Symptom Analysis:** Our website utilizes advanced algorithms to analyze user-reported symptoms and generate precise medication recommendations.
- **Personalized Recommendations:** Recommendations are tailored to each user's unique health profile, ensuring relevance and effectiveness.
- **Comprehensive Information:** Users receive detailed information about recommended medications, including dosage instructions, side effects, and alternative options.
- **User-Friendly Interface:** Our website features an intuitive interface, making it easy for users to input their information and navigate the recommendations.

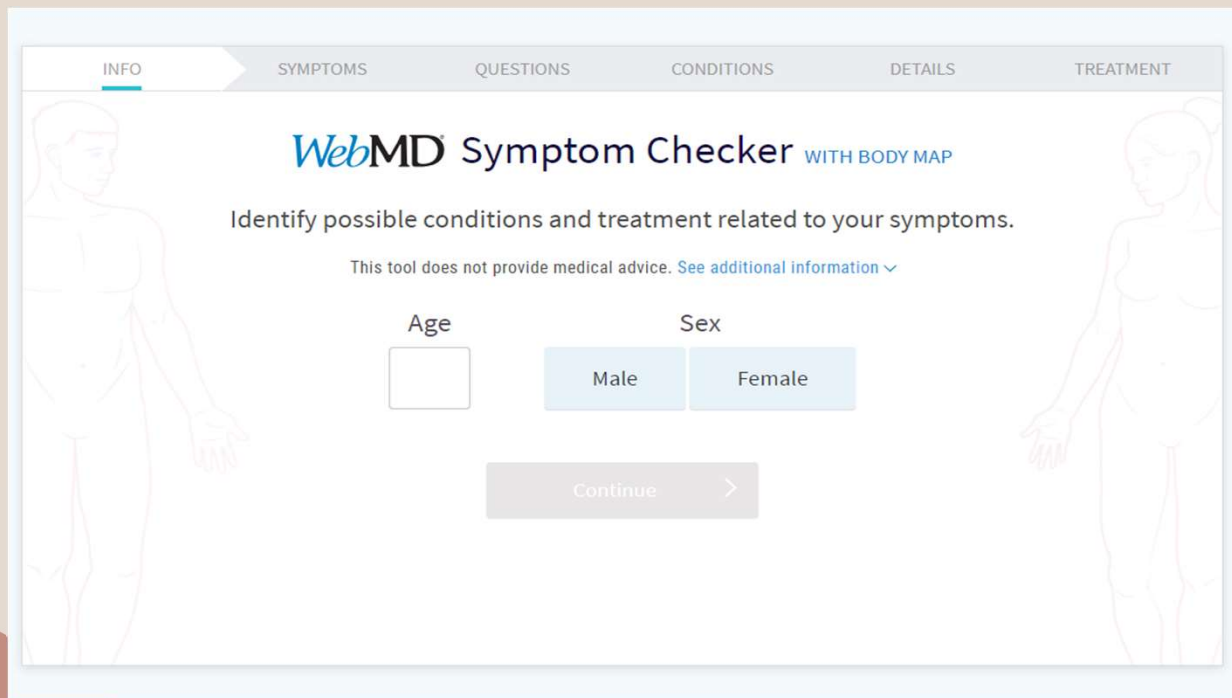
# MOTIVATION

**Rising Healthcare Complexity:** With the advancement of medical science, there has been a significant increase in the number of medications available for various health conditions. Healthcare professionals are often faced with the challenge of selecting the most suitable medication for each patient based on their unique symptoms, medical history, and other factors.

**Medical Errors and Adverse Reactions:** Medication errors, including incorrect prescription and dosage, can have serious consequences for patients, leading to adverse drug reactions, treatment inefficacy, and even life-threatening complications. A medicine recommender system aims to mitigate these risks by providing accurate and personalized medication recommendations tailored to each patient's needs.

## EXISTING SYSTEMS/MODELS

. **WebMD:** WebMD, a prominent online health information platform, aims to empower individuals with reliable medical information to make informed decisions about their health and well-being.



The screenshot displays the WebMD Symptom Checker interface. At the top, a navigation bar includes tabs for INFO, SYMPTOMS, QUESTIONS, CONDITIONS, DETAILS, and TREATMENT. The main heading is "WebMD Symptom Checker WITH BODY MAP". Below this, a subheading reads "Identify possible conditions and treatment related to your symptoms." A disclaimer states, "This tool does not provide medical advice. See additional information". The form fields include "Age" with a text input box, "Sex" with "Male" and "Female" buttons, and a "Continue" button with a right arrow.

MedicalNewsToday:"Medical News Today, a trusted online source for up-to-date medical news and information, provides individuals with comprehensive insights into the latest advancements in healthcare, empowering them to stay informed and proactive about their health journey."

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DRUGS | Conditions A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

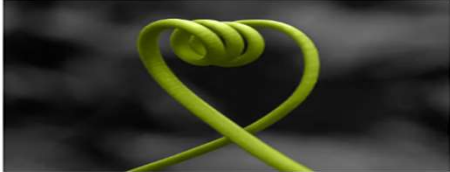
## Drugs and Medications A-Z

### COMMON CONDITIONS

VIEW ALL ➔


- Ankylosing Spondylitis
- Bipolar
- COPD
- Depression
- Hepatitis C
- + View All
- Asthma
- Breast Cancer
- Crohn's Disease
- Eczema (atopic dermatitis)
- HIV/AIDS

### FEATURED




#### What to know about SGLT2 inhibitors and heart failure

SGLT2 inhibitors are a type of drug to treat type 2 diabetes. Research suggests they may lower the risk of heart failure in people with and...




#### Fasenra (benralizumab)

Fasenra (benralizumab) is a brand-name drug used for severe eosinophilic asthma...



#### Eylea (aflibercept)

Eylea (aflibercept) is a prescription drug used to treat certain eye conditions...



#### What to know about phentermine and heart failure

Rare reports have linked phentermine and heart failure, but doctors may...



# SNAPSHOTS

## Welcome to MediMaster

Enter Your Age:

Select Your Gender:



Next

## Welcome to MediMaster

Enter Your Age:

Select Your Gender:



Next

## Health Care Center

Enter Your Symptoms:



Next

## Health Care Center

### Disease Details

#### Predicted Disease:

Fungal infection

#### Description:

Fungal infection is a common skin condition caused by fungi.

#### Precautions:

- ['bath twice', 'use detol or neem in bathing water', 'keep infected area dry', 'use clean cloths']

#### Medications:

['Antifungal Cream', 'Fluconazole', 'Terbinafine', 'Clotrimazole', 'Ketoconazole']

#### Diet:

['Antifungal Diet', 'Probiotics', 'Garlic', 'Coconut oil', 'Turmeric']

#### Workouts:

Avoid sugary foods

## Health Care Center

Enter Your Symptoms:

continuous\_sneezing, shivering, watering\_from\_eyes

Next

## Health Care Center

### Disease Details

#### Predicted Disease:

Allergy

#### Description:

Allergy is an immune system reaction to a substance in the environment.

#### Precautions:

- ['apply calamine', 'cover area with bandage', nan, 'use ice to compress itching']

#### Medications:

['Antihistamines', 'Decongestants', 'Epinephrine', 'Corticosteroids', 'Immunotherapy']

#### Diet:

['Elimination Diet', 'Omega-3-rich foods', 'Vitamin C-rich foods', 'Quercetin-rich foods', 'Probiotics']

#### Workouts:

Avoid allergenic foods

## Health Care Center

Enter Your Symptoms:

itching, vomiting, nausea, loss\_of\_appetite

Next

## Health Care Center

### Disease Details

#### Predicted Disease:

Chronic cholestasis

#### Description:

Chronic cholestasis is a condition where bile flow from the liver is reduced for a prolonged period.

#### Precautions:

- ['cold baths', 'anti itch medicine', 'consult doctor', 'eat healthy']

#### Medications:

['Ursodeoxycholic acid', 'Cholestyramine', 'Methotrexate', 'Corticosteroids', 'Liver transplant']

#### Diet:

['Low-Fat Diet', 'High-Fiber Diet', 'Lean proteins', 'Whole grains', 'Fresh fruits and vegetables']

#### Workouts:

Consume a low-fat diet

## Health Care Center

Enter Your Symptoms:

Next

# RESULT

## Health Care Center

### Disease Details

#### Predicted Disease:

Heart attack

#### Description:

Heart attack is a sudden and severe reduction in blood flow to the heart muscle.

#### Precautions:

- ['call ambulance', 'chew or swallow asprin', 'keep calm', nan]

#### Medications:

['Compression stockings', 'Exercise', 'Elevating the legs', 'Sclerotherapy', 'Laser treatments']

#### Diet:

['Heart-Healthy Diet', 'Low-sodium foods', 'Fruits and vegetables', 'Whole grains', 'Lean proteins']

#### Workouts:

Follow a heart-healthy diet

## PACKAGES USED

Pandas: For data manipulation and analysis, especially for handling datasets containing symptoms, diseases, medications, etc.

NumPy: For numerical computing and handling arrays or matrices, which might be useful for data preprocessing or mathematical operations.

Scikit-learn: For implementing machine learning algorithms such as classification (for predicting diseases based on symptoms) and recommendation systems.

Flask: For building web applications, which can be used to create the user interface for the medicine recommender system.

## FUTURE SCOPE

- Integration with Telemedicine
- Mobile Application Development
- Expansion of Services
- Integration with Wearable Devices
- Collaboration with Healthcare Institutions
- Global Expansion

## IMPACTS

- Enhanced Access to Healthcare Information
- Empowerment of Users in Health Decision-making
- Reduction of Misinformation and Confusion
- Improved Health Outcomes
- Streamlined Healthcare Processes
- Potential Cost Savings in Healthcare

## CONCLUSION

Our project represents a significant advancement in healthcare technology, offering innovative solutions to address critical challenges in healthcare information access and decision-making. By harnessing the power of technology, data, and collaboration, we have created a platform that empowers individuals to take control of their health and well-being. As we look to the future, we remain committed to driving positive impact, fostering healthier communities, and shaping the future of healthcare for generations to come.





THANK YOU