Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation: Ministry Of AYUSH

PS Code: 1347

Problem Statement Title: A software that suggests drugs and formulations for a disease/pharmacological property based on the Ayurvedic classical books/Repositories.

Team Name: DevRishi

Team Leader Name: Atharva Deopujari

Institute Code (AISHE): U-0841

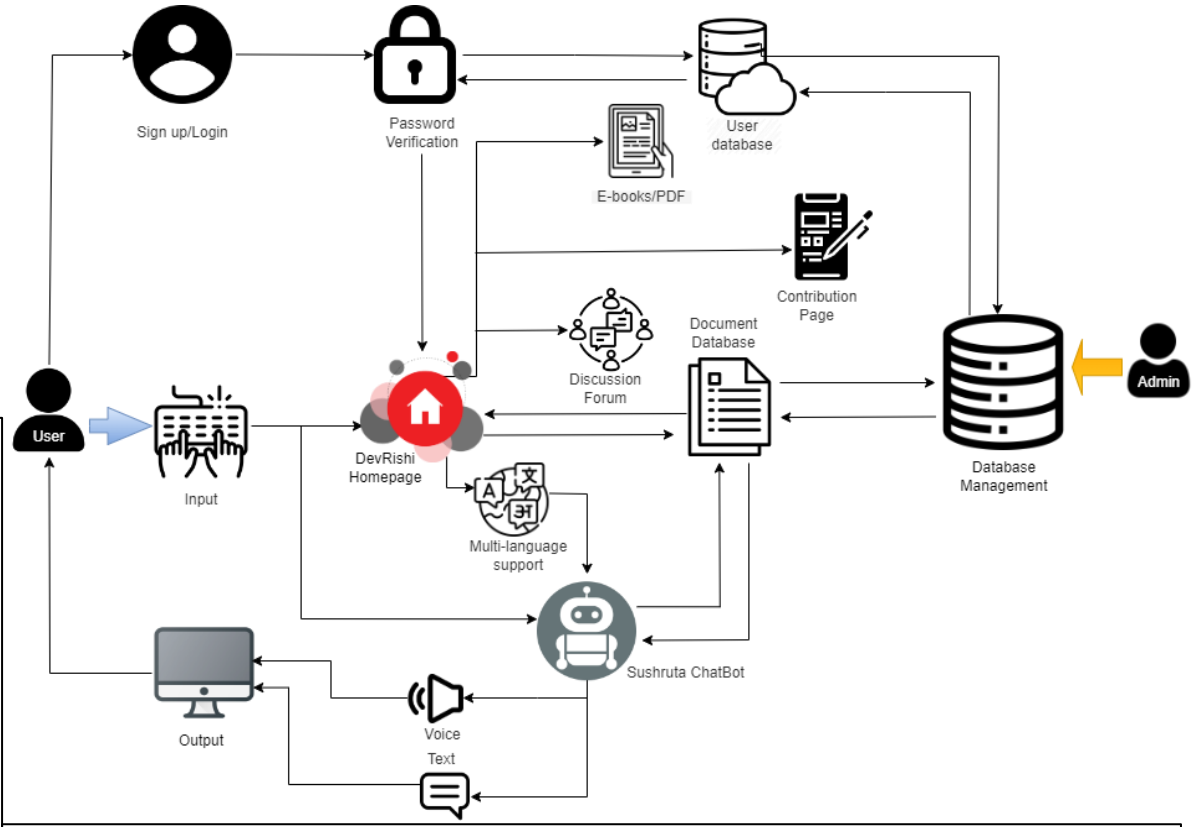
Institute Name: Indian Institute of Information Technology, Nagpur

Theme Name: MedTech / BioTech / HealthTech

Idea/Approach Details

We are looking for a solution by creating a web-app system that suggests drugs and formulations for a disease based on the Ayurvedic classical books. It will help the common people, practitioners and students to access the Ayurvedic knowledge of herbs, minerals and formulations from its 150 diverse texts. Prototype will work as follows:

- Users can access Ayurvedic knowledge via **Sushruta chat-bot**, which suggests **AI/ML**-driven **drug recommendations** and its f**ormulations** based on symptoms using a vast **Ayurvedic database**.
- Can maintain complete **data control**, ensuring **ethical** and **quality standards** along with **accuracy** for chat-bot provided information.
- The website and chatbot has **multilingual support** and **speech input** for user-preferred languages.
- Integration with the **DevRishi website**, offering comprehensive Ayurvedic medicine information divided into **sections** and **sub-sections**.
- A **contribution page** for students and doctors to share domain-specific knowledge. Important **E-books**, **PDFs**, and **online tutorials** will be made available on the website.
- Future **integration** of **Augmented Reality(AR)** and **Virtual Reality(VR)** for interaction of Ayurvedic practitioners with Sushruta chatbot.
- Website includes **Discussion Forums** for **community interaction** of like minded individuals.



Describe your Technology stack here:

Flutter, HTML, Dialogflow, CSS, php, Android Studio, python, OpenCV, node.js, React, JS, MySQL, Bootstrap, WordPress, Android, mongoDB, AI, Keras, Kotlin, NumPy

Idea/Approach Details

Describe your Use Cases here

- Visit DevRishi's website, ask questions, and get tailored **Ayurvedic guidance** from our AI chatbot. Receive **dietary recommendations** and specific remedies for various **health concerns**.
- DevRishi provides reliable **ayurvedic formulations** based on AI and trustworthy datasets according to the person.
- Access to vast repository of **Ayurvedic literature**, **Research papers**, and **Educational materials.**
- The chatbot offers free basics to attract users and **monetizes** premium features like personalized health plans and consultations following **freemium model.**
- By partnering with Ayurvedic product suppliers, the chatbot recommends herbal products and earns income through **affiliate marketing**.
- The chatbot anonymizes and **aggregates user data**, with consent, to identify **health trends**. This data can be **sold** to research institutions, Ayurvedic product firms, or pharmaceutical companies for natural remedy development.

Describe your Dependencies / Show stopper here

- Users can **create accounts** to access personalized features. Manage their profiles, preferences, and security settings.
- Website is integrated with a user-friendly **search bar**, designed to enhance your **travel experience** on our website.
- After Sushruta suggests the drug to the user, it will also give the necessary drug details to the user like **price**, nearby manufacturer via **GPS system**.
- **NLP** facilitates **multilingual** conversations in AI chatbots by enabling them to understand and respond in various languages, breaking down **language barriers** for **global users**.
- At basic stage the chatbot depends on **OpenAi API** to function. Later with help of proper resources, dataset and faster cpu, our **own models** can be trained.
- Used **Node.js** for development, **MySQL** for data storage, and **OAuth** for user authentication, **WebSocket** for real-time communication, monitor performance and user activity, and made content delivery faster with **CDNs**.
- Given is the link for **short demo** of what we have implemented till now. **Note**-It is still **under development** and is the **initial version** https://drive.google.com/file/d/15nrn5wiAdAxIbalvCHskZ16A6QF8d75D/view?usp=drive_link

Team Member Details

Team Leader Name: **Atharva Deopujari**

Branch: Btech, Stream: ECE, Year: II

Team Member 1 Name: **Vansh Bhavsar**

Branch: Btech, Stream: ECE, Year: II

Team Member 2 Name: **Kirtan Bhavsar**

Branch: Btech, Stream: ECE, Year: II

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Team Member 4 Name: **Kushagra Srivastava**

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Team Member 5 Name: **Akshaya Mudragada**

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Team Mentor 1 Name: **Dr.Aatish Daryapurkar**

Category: Academic, Expertise: Effective problem-solving strategies, Nanoscience and Nanotechnology ,Domain Experience (in years): 10

Team Mentor 2 Name: **Dr.Amol Bhopale**

Category: Academic, Expertise: NLP and Machine Learning , Domain Experience (in years): 6