SMART INDIA HACKATHON 2023

Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation:
Ministry of Housing and Urban Affairs

PS Code: SIH1516

Problem Statement Title :

Suggest an AI-based solution to enable ease of grievance lodging and tracking for citizens across multiple departments.

Team Name: Backbenchers 6.0

Team Leader Name: Angelika Thomas

Institute Code (AISHE): C-36117

Institute Name: Oriental Institute Of Science And Technology

Theme Name: Smart Automation

Idea/Approach Details

IDEA & SOLUTION

To simplify the grievance lodging procedure, ensure accessibility to citizens of diverse linguistic backgrounds, and provide real-time updates, ultimately leading to more responsive and user-friendly governance.

✓ Ai-powered Chatbot For Grievance Redressal

✓ Chatbot Supports Multiple Indian Languages

✓ NLP And Machine Learning For Understanding

✓ User-friendly, Accessible Interface

✓ Privacy And Data Security

✓ Real-time Updates And Unique Complaint Numbers
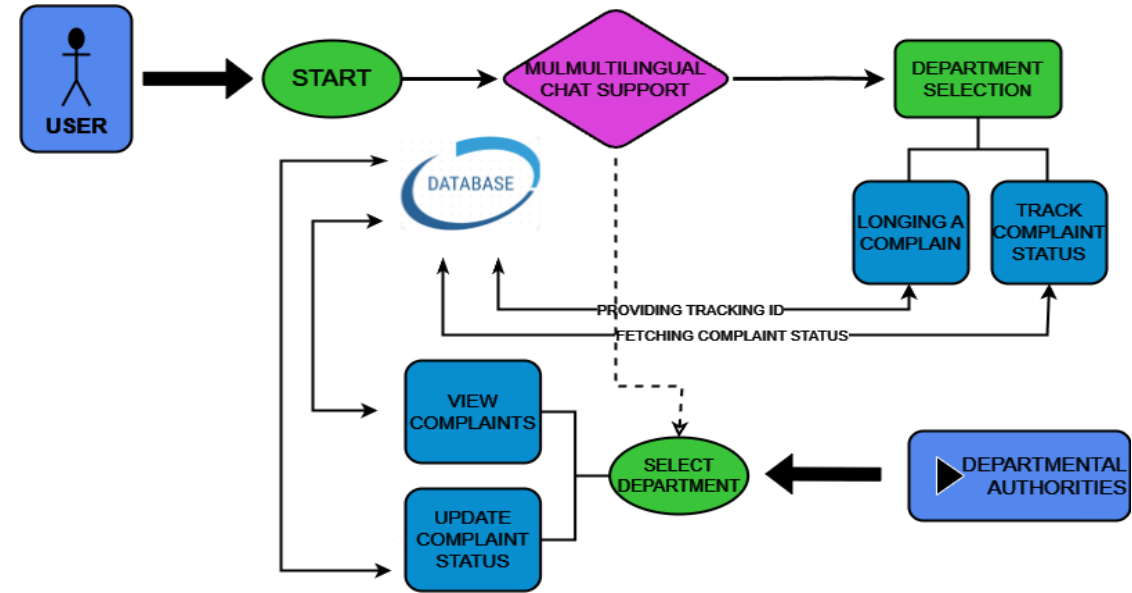
TECH STACK

➢ React + 3Js –> Frontend Framework

➢ FastAPI + Python –> Backend Framework

➢ TensorFlow & PyTorch –> Machine Learning Frameworks

➢ Dialogflow + BotPress –> Frameworks for building conversational AI

➢ MySQL + Google Cloud –> database hosting and management

➢ Language Translation APIs –> multilingual support

Idea/Approach Details

USE CASES

➢ **Government and Public Services** : Enhancing the efficiency and accessibility of government services by providing citizens with an easy-to-use platform for grievance redressal and information access.

➢ **Urban and Rural Areas**: Deployed in both urban and rural settings, the chatbot serves citizens needs, including those not proficient in common languages, making it valuable across diverse geographic regions.

➢ **Crisis Response** : Facilitating rapid communication and information dissemination during crises, such as natural disasters and health emergencies, to ensure swift responses and provide crucial updates.

➢ **Language-Diverse Regions** : Particularly valuable in regions with linguistic diversity, ensuring that citizens can communicate their concerns in their preferred languages, promoting inclusivity.

SHOW-STOPPER

➢ **Prompt Understanding** : Making the chat-bot efficient in understanding the user input through the trained model of ML and NLP.

➢ **Authentication and Spamming** : Taking AADHAR verification to identify genuine citizens.

➢ **Multilingual Integration** : Handling different languages and maintain database.

➢ **Data Integration** : connecting different departments smartly to avoid clashes.

➢ **Data Security** : Securing of sensitive citizen data.

Team Member Details

Team Leader Name: Angelika Thomas

Branch : Btech   **Stream : CSE-AIML**   **Year : III**

Team Member 1 Name: Abhijeet Singh Rana

Branch : Btech   **Stream : CSE-AIML**   **Year : III**

Team Member 2 Name: Deepanshu Kumar Mishra

Branch : Btech   **Stream : CSE-AIML**   **Year : III**

Team Member 3 Name: Anshika Gupta

Branch : Btech   **Stream : CSE-AIML**   **Year : III**

Team Member 4 Name: Abhay Giri

Branch : Btech   **Stream : CSE-AIML**   **Year : III**

Team Member 5 Name: Vikash Kumar Verma

Branch : Btech   **Stream : CSE-AIML**   **Year : III**

Team Mentor 1 Name: Sreeja Nair

Category : Academic   **Expertise : Data Structures**   **Domain Experience (in years): 23**

Team Mentor 2 Name: Uma Vishwakarma

Category : Academic   **Expertise : Machine Learning**   **Domain Experience (in years): 13**