Sustainable Smart City Assistant Using IBM Granite LLM

SmartInternz-IBM Cloud Internship Project

Problem Statement:

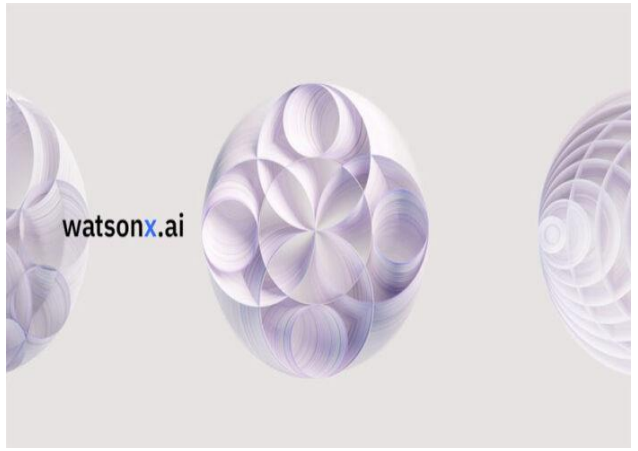
Develop an AI-powered assistant using IBM Granite LLM to provide real-time, personalized support for sustainable smart city services.

Objectives:

- Develop an Intelligent Conversational Assistant
- Promote Sustainability in Urban Living
- Enable Real-Time Information Access
- Build an Easy-to-Use Interface
- Enable Future Expansions

Technologies Used:

- Watsonx.ai
- IBM Granite Large Language Model
- Python
- Streamlit



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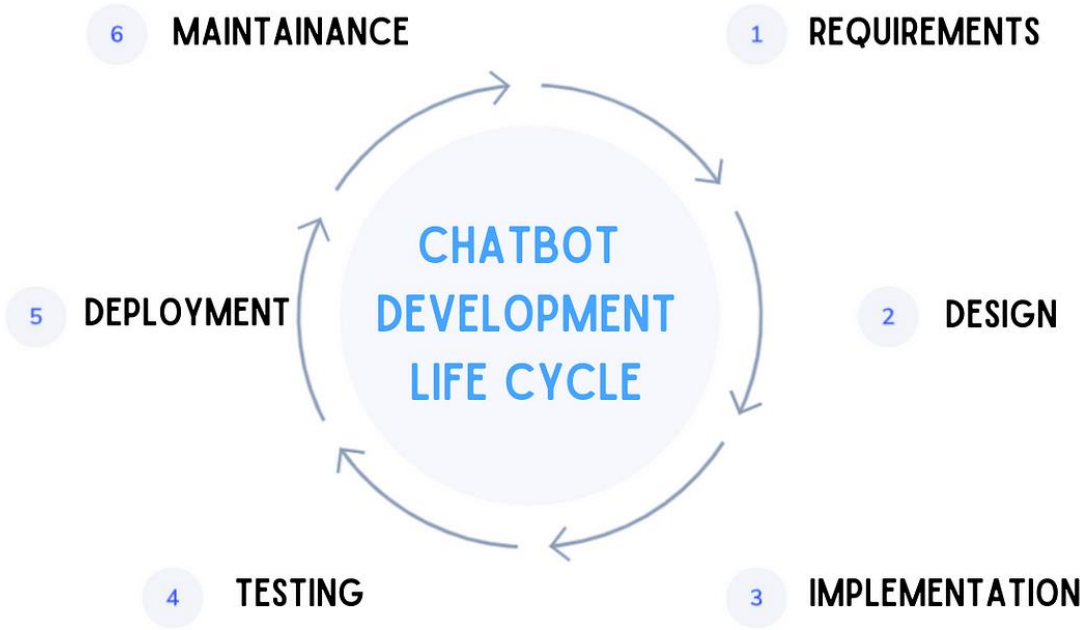
6 MAINTAINANCE
1 REQUIREMENTS
CHATBOT DEVELOPMENT LIFE CYCLE
5 DEPLOYMENT
2 DESIGN
4 TESTING
3 IMPLEMENTATION

Key Features:

- AI-Powered Conversational Assistant
- Sustainability-Focused Guidance
- Real-Time Query Resolution
- Interactive User Interface (Streamlit UI)
- Secure API Communication
- Deployable on Cloud

Advantages:

- **Provides accurate, human-like responses using IBM Granite LLM.**
- **Understands natural language, making interactions smooth and intuitive.**
- **Promotes eco-friendly practices in energy, water, waste, and transportation.**
- **Helps build citizen awareness about sustainability.**
- **Instantly answers user queries on smart city services.**
- **Eliminates the need to browse through lengthy websites or documents.**
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Future Scope:

- Add speech recognition and text-to-speech for hands-free interactions.
- Useful for visually impaired users and public kiosks..
- Improve reach in diverse smart city populations.
- Connect with smart meters, sensors, and city infrastructure for real-time data-driven responses.

Thank You

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