





SPACE VAL HACKATHON

In Association with







Team Name: Turing Titans

Name of College/University: Netaji Subhas University of Technology, Delhi

Team Member Details:

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Problem Statement: Voice-Activated Search Assistant: Revolutionizing Query Resolution through Conversational Al

A small brief about our approach and the understanding of the problem statement:

- Develop Voice-Activated Search Assistants and Conversational AI for seamless information retrieval.
- Create a smart chatbot proficient in recognising and responding to voice queries effectively.
- Design a simple interface optimized for voice commands, ensuring user-friendly interaction.
- Enable the chatbot to swiftly and accurately address various types of questions.

- Implement Geospatial Data from Bhuvan Web Links to enhance navigation and provide meaningful results.
- Ensure adaptability to diverse situations, scalable to handle increased user load, and easily extensible for future features.
- Prioritise user-centric experiences, offering personalised results based on users' task history within the chatbot.















Detailed Proposal & Solution Approach

VOICE RECOGNITION:

IMPLEMENT A CUTTING-EDGE VOICE

RECOGNITION SYSTEM

CONVERT SPOKEN WORDS INTO TEXT FOR A

SMOOTH USER EXPERIENCE

NATURAL LANGUAGE PROCESSING(NLP):

UTILIZE ACCURATE NLP ALGORITHMS

PRECISELY INTERPRET USER INTENT FROM

TRANSCRIBED TEXT

CONTEXT-AWARE ALGORITHMS:

OUR CHATBOT TO DELIVERS PERSONALIZED

RESPONSES TAILORED TO RESPONSES

BASED ON USER INTERACTIONS

ADAPTABILITY AND SCALABILITY:

DEMONSTRATE ADAPTABILITY TO DIVERSE

USER INTERACTION

ACCOMMODATE POTENTIAL FUTURE

ENHANCEMENTS OR INCREASED USER LOADS

KEY OBJECTIVE:
CREATE A HIGHLY PROFICIENT VOICEENABLED CHATBOT
EXCEL IN PROCESSING AND RESPONDING
TO VOICE-BASED SEARCH QUERIES

USER INTERFACE DESIGN:
IT PRIORITIZES AN INTUITIVE DESIGN WHICH
SEAMLESSLY INTEGRATES VOICE INPUT AND
OUTPUT FOR A USER-FRIENDLY EXPERIENCE

EFFICIENT QUERY PROCESSING:
HANDLE VARIOUS SEARCH QUERIES
PROMPTLY AND ACCURATELY

THE CHATBOT
PERSONALIZED RECOMMENDATIONS: TAILOR
RESPONSES BASED ON USER PREFERENCES

INNOVATIVE FEATURES:

USER EXPERIENCE ENHANCEMENT:
THE CHATBOT CONTINUOUSLY DOES
IMPROVEMENT BASED ON TEST FEEDBACK,
ACCURACY METRICS
WE MAJORLY FOCUS ON EASE OF USE,
RESPONSIVENESS, OVERALL SATISFACTION





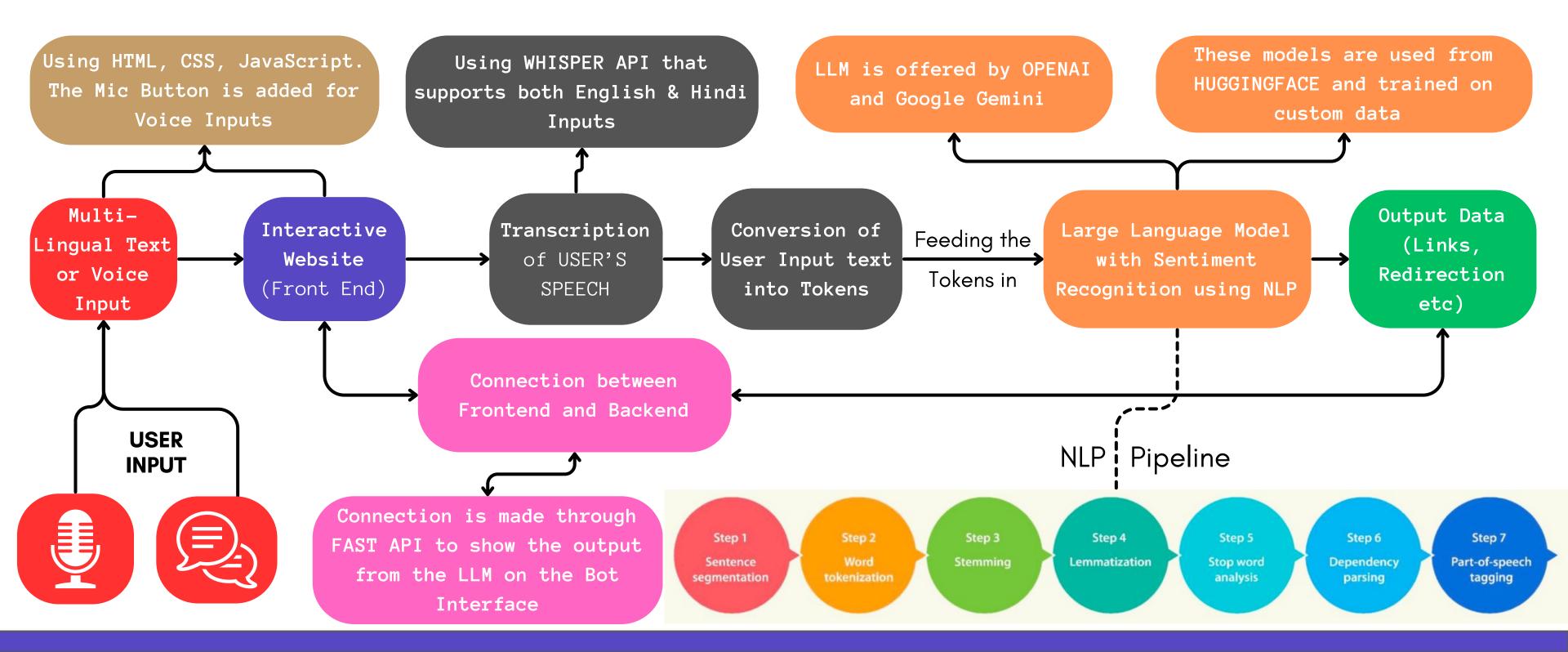








Detailed Proposal & Solution Approach: To handle this project, our team first studied the bot's model, design, and dataset. We believe in dividing the big problem into smaller parts and working on them simultaenesouly. This helps us create a well-rounded model with lots of abilities and a great design. Our whole process can be explained like this:















Tools and Devices used on Development:











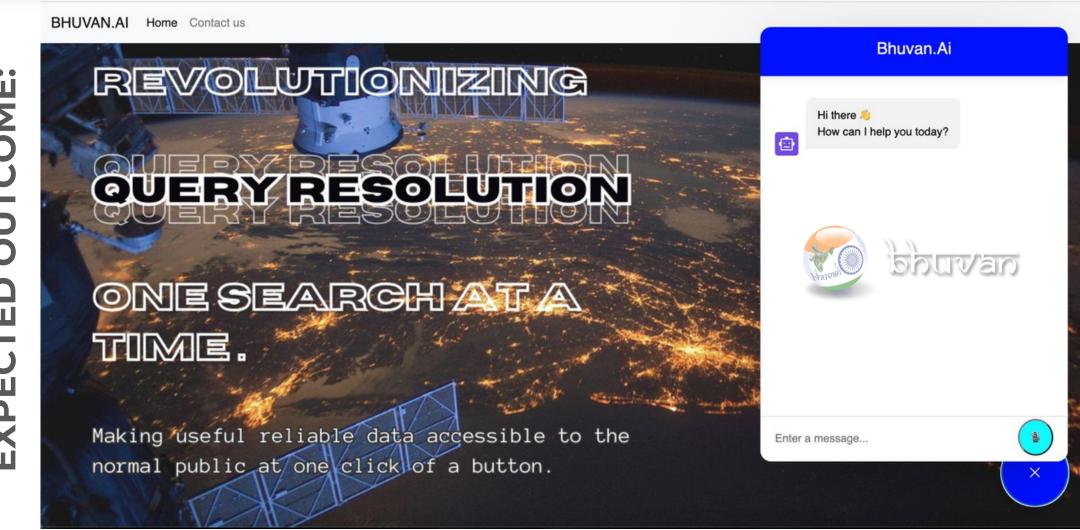








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References/Acknowledgement:

- OpenAl Speech to Text
- Chatbot with LangChain, Transformers
- Transformers Documentation
- FAST API Documentation
- Langchain Documentation
- <u>Hugging Face JS Libraries</u>
- Whisper API Working

Technologies Involved:



Project Link:

BHUVAN.AI Voice Assisted Chatbot <u>Deployment Link</u>

will links the vou destination website

