TITLE PAGE

- **Problem Statement ID – SIH1648**
- **Problem Statement Title- (Online Chatbot based ticketing system)**
- **Theme- Travel and tourism**
- **PS Category- Software**
- **Team ID- 62**
- **Team Name (Registered on portal)- Next Tech**

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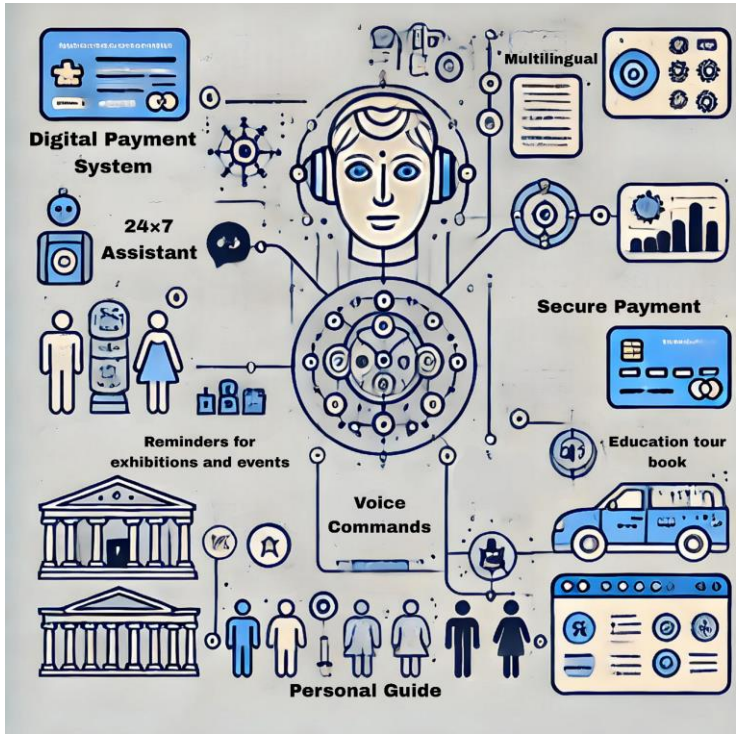
IDEA TITLE

SMART INDIA HACKATHON 2024

The proposed solution is an **efficient**, **multilingual chatbot-based ticket booking system** for museums. It tackles issues of **long queues**, **manual errors**, and accessibility by providing **dynamic pricing, voice command bookings**, **secure payments**, and options for **personal exhibition rentals**, enhancing both visitor experience and revenue generation.

- ❑ **Multilingual chatbot** handles ticket bookings efficiently.
- ❑ Reduces **long queues** and manual errors.
- ❑ Offers **dynamic pricing** for peak/off-peak times.
- ❑ Provides **voice command** booking options.
- ❑ Enables **personal guide booking** for visitor assistance.
- ❑ Allows **personal exhibition rentals** for exclusivity.
- ❑ Supports **education and event booking** features.
- ❑ Sends **reminders for special bookings** and events.

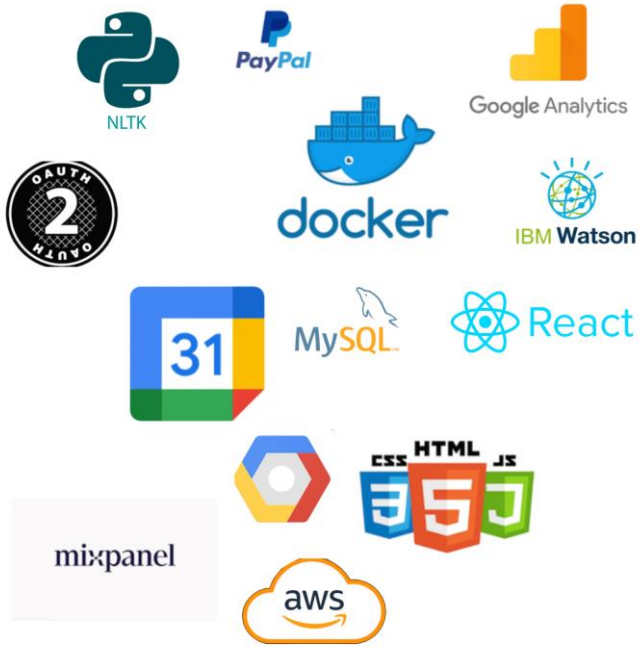


TECHNICAL APPROACH

Technical Implementation

- Build chatbot using **Microsoft Bot** Framework or **Dialogflow**.
- Use **Python** for backend and **JavaScript** for frontend.
- Implement **NLP** using **Google Cloud** or **IBM Watson**.
- Use scalable database like **MongoDB** or **MySQL**.
- Integrate scheduling **API** like **Google Calendar**.
- Implement user authentication using **OAuth 2.0**.
- Integrate payment gateways like **Stripe** or **PayPal/Razorpay.**
- Offer multilingual support using **i18n libraries**.
- Deploy on scalable cloud platforms like **AWS** or **Azure**.
- Track user interactions using analytics tools.

Tech Stack



Key Points

- We'll leverage robust frameworks for efficient chatbot development.
- Scalability and security are our top priorities.
- Personalized experiences will be made possible through user profiles and analytics insights.
- Our goal is to create a user-friendly and intuitive guide booking system.

Feasibility Analysis:

- **Technically feasible** with existing chatbot technology
- **Operationally challenging** due to museum and guide collaboration
- **Financially viable** with revenue streams
- **User acceptance crucial** for success
- **Scalable design** for growing traffic and data
- **Realistic timeline** of 6-12 months with dedicated team.

Potential Challenges and Risks

- **Technical Issues**: The chatbot might not work correctly, making users unhappy and losing trust.
- **User Adoption**: People might not want to use the chatbot to book guides.
- **Guide Management**: It can be hard to keep guide information up-to-date and make sure they are good quality.

Strategies for Overcome Challenges

- **Technical Issues**: Use strong error fixing, share the workload, and have a plan for big problems.
- **User Adoption**: Give users personalized experiences, make it fun, and offer quick help.
- **Guide Management:** Use smart guide matching, certify guides, and have a clear plan for problems.

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IMPACT AND BENEFITS

SMART INDIA HACKATHON 2024

Potential Impact

- Enhanced visitor experience
- Increased accessibility
- Improved language support
- Increased engagement & satisfaction

Benefits

Social

- Enhanced cultural exchange
- Support for local communities

Economic

- Increased revenue
- Job creation & growth

Environmental

- Reduced paper waste
- Increased efficiency

Links of the reference and research work

ResearchGate : https://www.researchgate.net/
ScienceDirect : https://www.sciencedirect.com/
Google Scholar: https://scholar.google.com/

Youtube References: https://youtu.be/ZeoqOybAzdc?si=hm1ZAw48IAg84Vh-
https://youtu.be/o9-ObGgfpEk?si=a1yRR-wgNZoiFeRb
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