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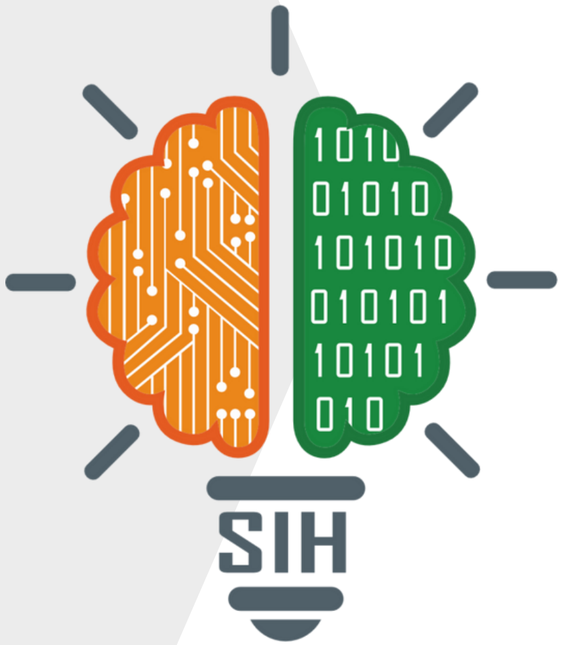
- **Problem Statement ID –1648**
- **Problem Statement Title-Online Chatbot based ticketing system**
- **Theme-Travel & Tourism**
- **PS Category- Software**
- **Team Name :Error 404 : change found?**



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SANGRAH BOT

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- **How it Addresses the Problem**:
- The chatbot system will resolve inefficiencies in the current manual ticket booking process by automating ticket issuance, reducing queue times, and minimizing errors such as double bookings or lost records. This will lead to enhanced customer satisfaction and an improved overall visitor experience.
- **Innovation and Uniqueness of the Solution**:
- The solution is unique in its comprehensive approach, offering not only ticketing services but also data analytics, marketing tools, and multilingual support, all of which contribute to a seamless and inclusive visitor experience. The chatbot's capability to handle high volumes of bookings efficiently, along with integrated payment processing, sets it apart from traditional systems.

TECHNICAL APPROACH

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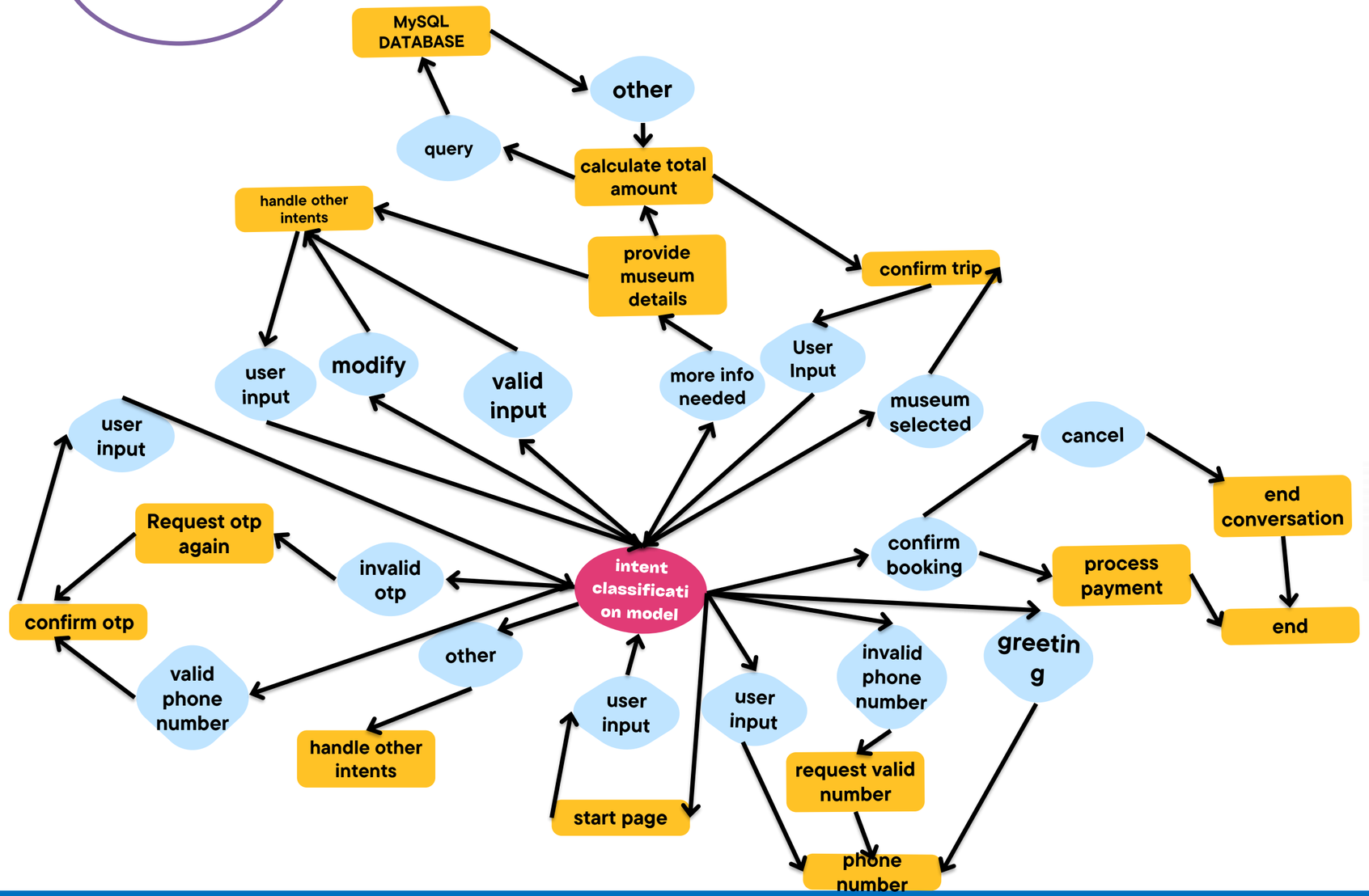

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USP

- Uses **Generative AI** to create content by learning patterns from existing data .Blocks hates speech and dangerous content.
- Can recognise **multiple language** input and **voice** input.
- Integration with open source LLMS to handle **prompt injection**.
- Analyze user feedback to determine overall sentiment, then focus on areas with the most **positive or negative feedback** to identify key improvements or strengths in the chatbot.
- Based on the **sentiment analysis**, prioritize the most critical areas for improvement. This could involve refining the user interface, improving chatbot responses, or adding more detailed exhibit information.
- **Decision-Making Support**: Use the insights gained from the sentiment analysis to support strategic decisions, such as planning new features, marketing campaigns, or customer service improvements.
- Leverage the user's **IP address** to automatically detect their location and display the **five nearest museums** for selection, removing the need for manual entry.

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BUSINESS MODEL

- Revenue streams include subscription fees, transaction commissions, and premium features like advanced analytics.
- Development, operational, and marketing costs are key to managing expenses.
- Key resources involve scalable technology infrastructure and a skilled team, with partnerships enhancing service offerings.
- Local businesses can benefit from targeted promotions, while marketing the chatbot through online platforms and tourism networks ensures long-term success.

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FEASIBILITY AND VIABILITY

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- **Analysis of the Feasibility of the Idea**:
  - The solution is highly feasible given the current advancements in chatbot technology and payment gateway integrations. The required technologies are readily available and widely used, ensuring that the system can be developed and deployed effectively.
- **Potential Challenges and Risks**:
  - **Challenges**: Integration with existing museum systems, ensuring data privacy, managing high volumes during peak times.
  - **Risks**: System downtime, cybersecurity threats, resistance to technology adoption by staff or visitors.
- **Strategies for Overcoming These Challenges**:
  - Implement robust testing and continuous monitoring to ensure system reliability.
  - Adopt strong encryption and data protection measures to safeguard user data.
  - Provide training and support for museum staff to ease the transition to the new system.

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IMPACT AND BENEFITS

The chatbot system will significantly enhance the visitor experience by providing a convenient, quick, and error-free ticket booking process. It will also allow for better crowd management, especially during peak times.

- **Benefits** :
  - **Social**: Increases accessibility and inclusivity, encourages cultural engagement.
  - **Economic**: Reduces operational costs, boosts local tourism, and increases revenue through better marketing and visitor retention.
  - **Environmental**: Reduces paper usage, lowers the carbon footprint by enabling remote bookings, and promotes sustainable tourism practices.

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RESEARCH AND REFERENCES

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- https://www.twilio.com/docs (for generating OTP)
- https://cloud.google.com/dialogflow/cx/docs
- https://docs.djangoproject.com/en/5.0/contents/
- https://www.django-rest-framework.org/
- https://django-rest-framework-simplejwt.readthedocs.io/en/latest/index.html