Team ID : RIT13

MUSEUM TICKET BOOKING BOT

Team Members:

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ABSTRACT: MUSEUM BOOKING BOT

The **Museum Booking Bot** is an intelligent, interactive system designed to streamline the process of booking museum tickets through a conversational interface. Developed using Node.js and integrated with a Telegram bot, the system enables users to explore and book tickets for various museums with ease.

The bot initiates the conversation by allowing the user to select a preferred language (English, Hindi, or Tamil), making it accessible to a diverse audience. It then offers options like "Book a ticket" or "Exit." If the user selects the booking option, the bot asks for relevant details such as the museum name or location, preferred date (within a 7-day range), session times, and the number of tickets. The system then allocates the available seats and confirms the booking by storing the user's phone number and booking information in a MongoDB database, tickets can be verified with unique ticket number.

This project demonstrates the potential of using conversational bots to enhance user experiences by automating routine tasks like museum bookings, making the process faster and more accessible to users across different languages.

PROBLEM

Indian culture is rich and it has lots of museums & monuments depicting it , but people are not much attracted to it and most of the time they are empty

Till date, there is no familiar online booking system for museums making it even more unpopular among the people.

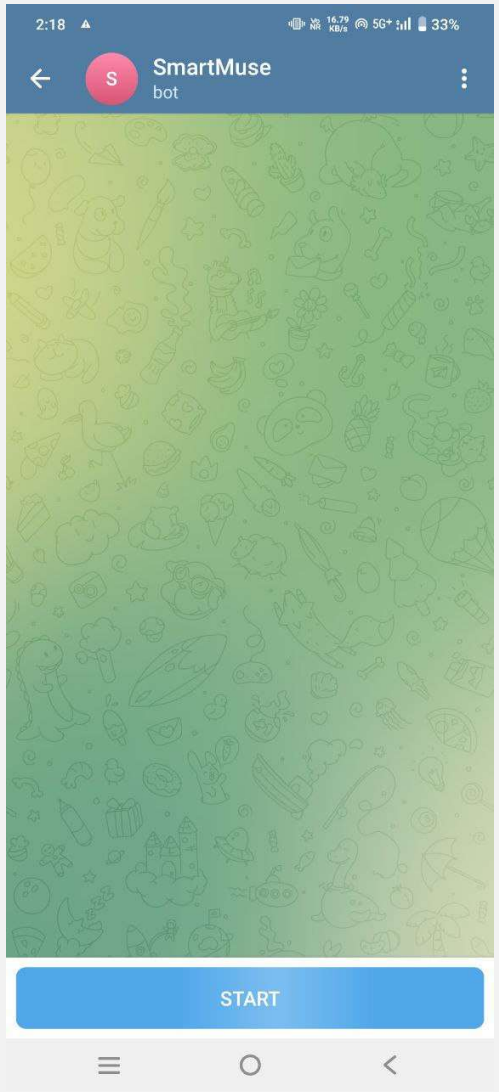
Visitors to museums often face several significant challenges due to manual ticket booking systems.

Long queues are common, especially during peak hours, weekends, or special exhibitions, leading to frustration and impatience among visitors.

SOLUTION

So we came up with an idea to increase the popularity of museums by introducing a bot , which can tell about the museums and also enables the user to book tickets for it using a telegram bot .

Enhance visitor satisfaction by reducing wait times, minimizing errors, and providing 24/7 customer support in multiple languages.



TECH STACK

- Chatbot Framework: Telegram API
- Backend Development: Node.js
- Database: MongoDB

```
const TelegramBot = require('node-telegram-bot-api');
const mongoose = require('mongoose');
const axios = require('axios');
const qrcode = require('qrcode');
const crypto = require('crypto');
const twilio = require('twilio');

// MongoDB setup
mongoose.connect('mongodb://localhost:27017/museum_db')
    .then(() => console.log('MongoDB connected'))
    .catch(err => console.error('MongoDB connection error:', err));
```

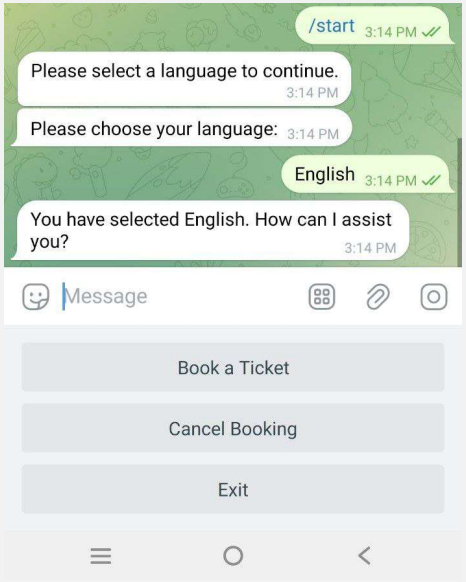

```
_id: ObjectId('66fb8acb07f8cba46daedfaf')
museum : "Fort Museum"
date : "2024-10-02"
session : "10:30-12"
seats : 2
mobileNumber : "8825503860"
ticketNumber : "DE189D9947B86E88"
totalPrice : 40
paymentStatus : "completed"
upiTransactionId : "UPI1727761032838q48md"
__v : 0

_id: ObjectId('66fb8adf07f8cba46daedfb2')
museum : "Fort Museum"
date : "2024-10-02"
session : "10:30-12"
seats : 2
mobileNumber : "8825503860"
ticketNumber : "B51DC0C3AB398445"
totalPrice : 40
paymentStatus : "completed"
upiTransactionId : "UPI1727761032838q48md"
__v : 0
```

TECH STACK

- Payment Gateway Integration: UPI
- Admin UI: React , JavaScript
- Multilingual Support: Memory API
- Cloud Hosting: Render

FEATURES

- Language selection
  (English, Hindi, Tamil, Telugu)
- Museum and date selection
- Session time selection
- Seat allocation
- Confirmation and exit options


/start 3:14 PM
Please select a language to continue. 3:14 PM
Please choose your language: 3:14 PM
English 3:14 PM
You have selected English. How can I assist you? 3:14 PM
Message
Book a Ticket
Cancel Booking
Exit

/start 3:15 PM
Please choose your language: 3:15 PM
Tamil 3:15 PM
நீங்கள் தேர்ந்தெடுத்துள்ளீர்கள் Tamil. நான் உங்களுக்கு எப்படி உதவ முடியும்? 3:15 PM
Message
டிக்கெட்டை முன்பதிவு செய்யுங்கள்
முன்பதிவை ரத்துசெய்
வெளியேறு

/start 3:15 PM
Please choose your language: 3:15 PM
Hindi 3:15 PM
If I would have selected Hindi. मैं आपकी सहायता कैसे कर सकती हूँ? 3:15 PM
Message
टिकट बुक करें
बुकिंग रद्द करें
बाहर निकलें

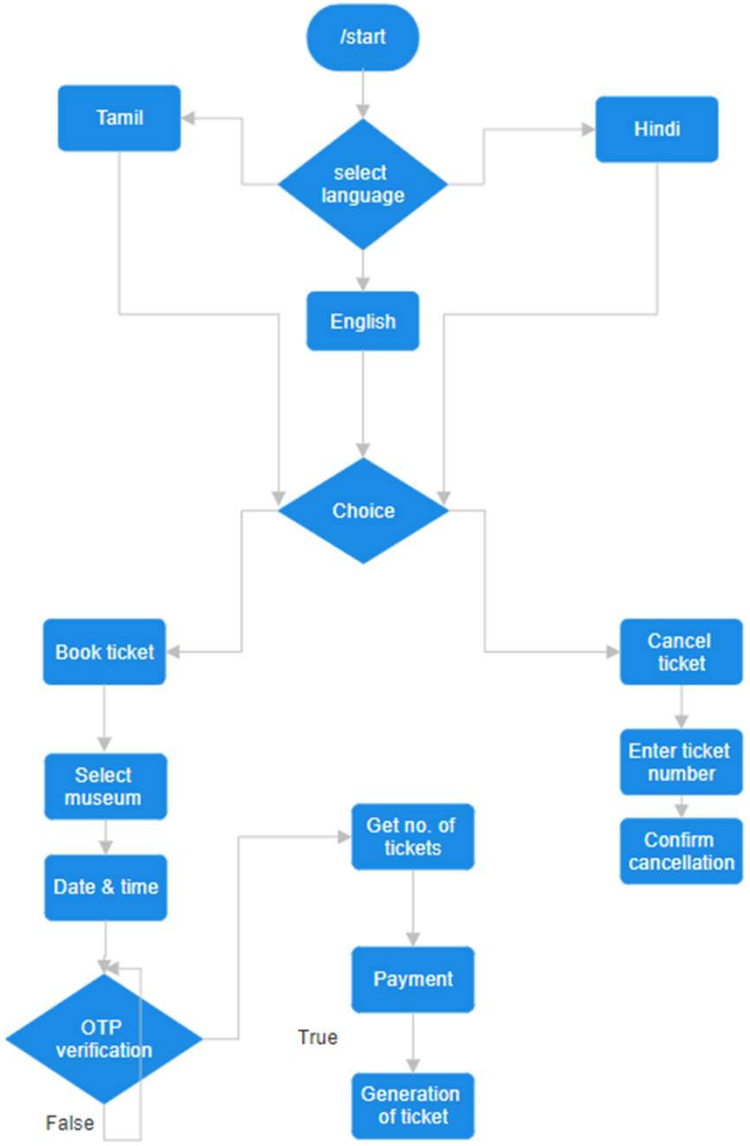
/start 2:57 PM
Please choose your language: 2:57 PM
Telugu 2:57 PM
మీరు ఎంచుకున్నారు Telugu. నేను మీకు ఎలా సహాయం చేయగలను? 2:57 PM
Message
టిక్కెట్ బుక్ చేయండి
బుకింగ్ ను రద్దు చేయండి
నిష్క్రమించండి

2:21
SmartMuse
bot
2024-10-05 2:20 PM
ஒரு அமர்வைத் தேர்ந்தெடுக்கவும்:
2:20 PM
2-4 2:21 PM
எத்தனை இருக்கைகளை முன்பதிவு செய்ய விரும்புகிறீர்கள்? (10 கிடைக்கும்)
2:21 PM
5 2:21 PM
5 இருக்கைகளுக்கான மொத்த விலை 50 ரூபாய்.
10 இலக்க மொபைல் எண்ணை உள்ளிடவும்.
2:21 PM
8825503860 2:21 PM
Message
GIF

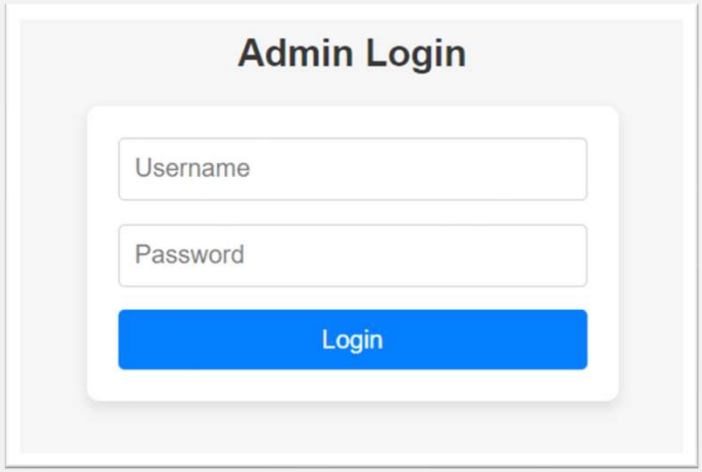
Messages
59039465 · Now
Your (SAMPLE TEST) verification co...
Copy "415650"
Mark as read
5 2:21 PM
5 இருக்கைகளுக்கான மொத்த விலை 50 ரூபாய்.
10 இலக்க மொபைல் எண்ணை உள்ளிடவும்.
2:21 PM
8825503860 2:21 PM
உங்கள் மொபைல் எண்ணுக்கு சரிபார்ப்புக் குறியீடு அனுப்பப்பட்டுள்ளது. உங்கள் முன்பதிவை உறுதிப்படுத்த, குறியீட்டை உள்ளிடவும்.
2:21 PM
Message
GIF

2:22
SmartMuse
bot
பேமெண்ட் முடிந்தது
2-4 காலகட்டத்தில் 5 இருக்கைகளுடன் 2024-10-05 அன்று காந்தி நினைவு அருங்காட்சியகத்திற்கான உங்கள் முன்பதிவு உறுதி செய்யப்பட்டது!
மொத்த விலை: 50 INR
உங்கள் டிக்கெட் எண்: 8AF387E524524E59
2:22 PM
Scan this QR code for your booking details
2:22 PM
8AF387E524524E59 2:22 PM
நீங்கள் வேறு ஏதாவது செய்ய விரும்புகிறீர்களா?
2:22 PM
Message

FLOW CHART


/start
Tamil
select language
Hindi
English
Choice
Book ticket
Cancel ticket
Select museum
Enter ticket number
Date & time
Confirm cancellation
Get no. of tickets
OTP verification
Payment
True
Generation of ticket
False

JWT USAGE FOR IMPROPER ACCESS



Government Museum Dashboard

Today's Bookings

Ticket: 4DF4C76DB35BAF23

Date: 2024-11-13

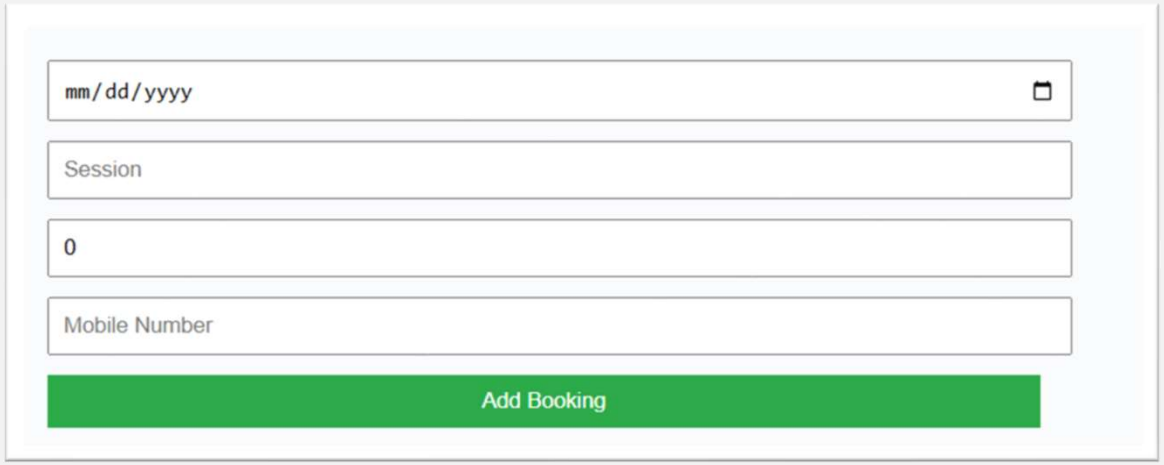
Session: 12-2

Seats: 2

Status: completed

Available Tickets: 8

Add a New Booking



PROTOTYPE WORKING VIDEO

Video Link

IMPACT AND BENEFITS

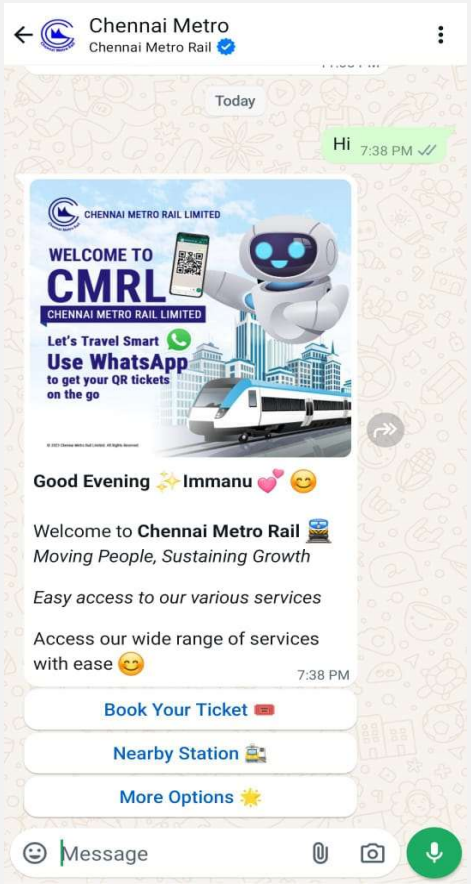
17C354AC182F4107

The chatbot ticketing system will make it easier and faster for visitors to book tickets, leading to higher satisfaction and potentially increasing the number of visitors to the museum.

Cuts down on paper usage by eliminating physical tickets, helping the museum be more eco-friendly.

Makes the museum more accessible to everyone, including non-English speakers and people with disabilities.

RESEARCH AND REFERENCES



https://youtu.be/F2-RuyIroFw?feature=shared

https://core.telegram.org/bots/api

https://react.dev/

https://www.twilio.com/docs

https://nodejs.org/docs/latest/api/

CONCLUSION

The Telegram bot enhances the museum ticket booking experience by providing a user-friendly interface and efficient booking process, which with specific marketing ways will end up in popularizing the museums among the Indians.