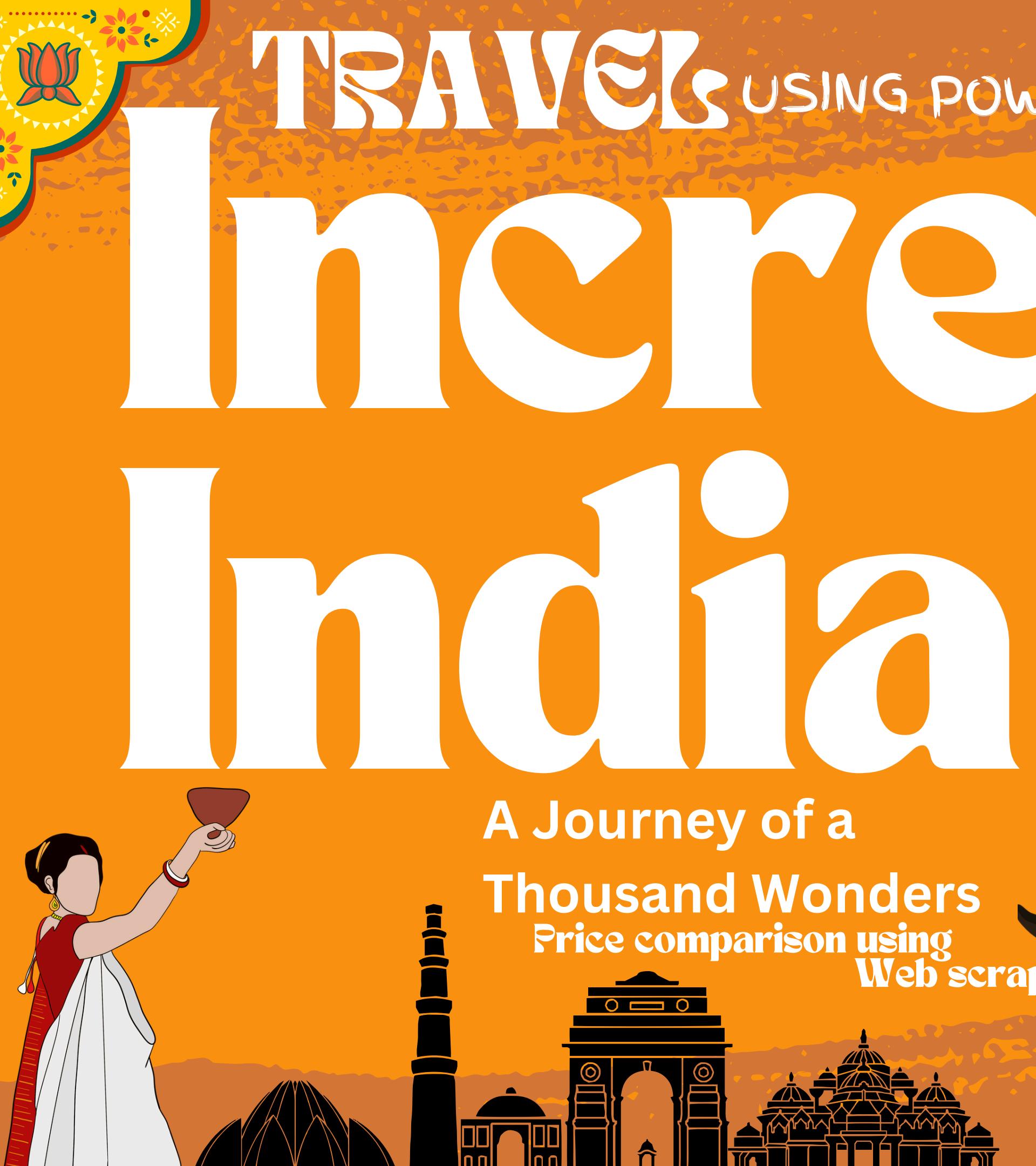
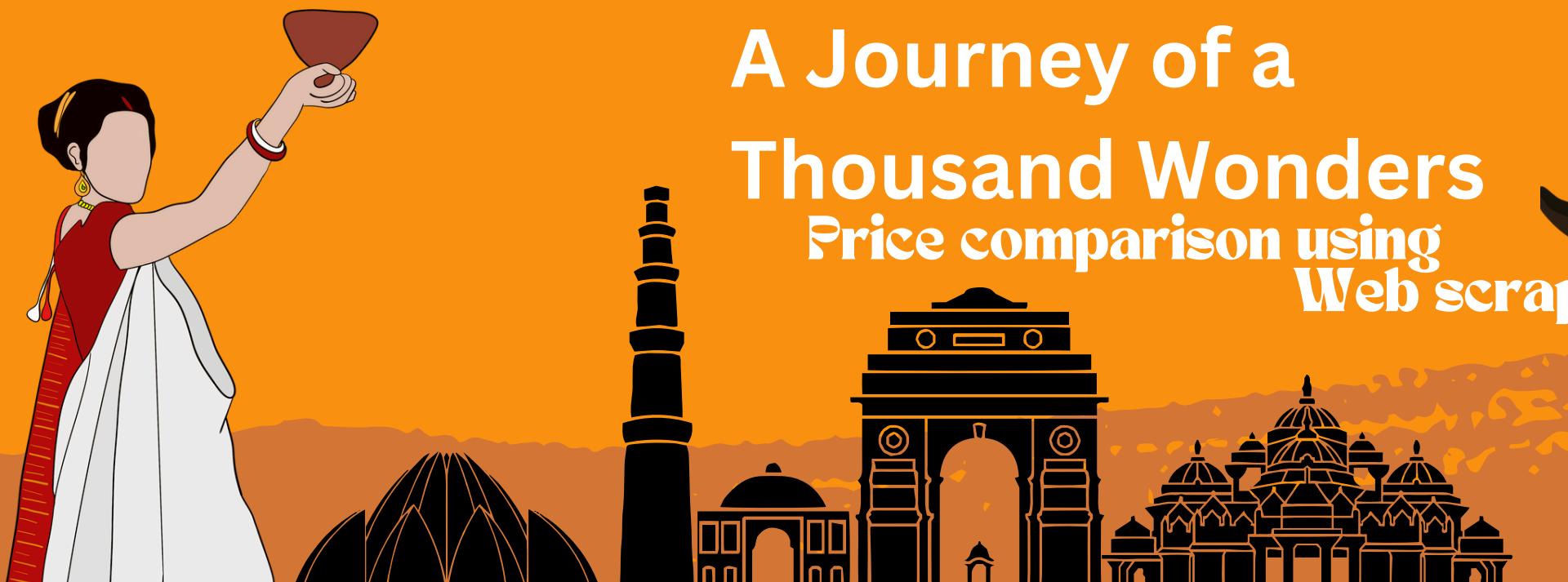


TRAVEL USING POWER BI

incredible india

A Journey of a
Thousand Wonders
Price comparison using
Web scraping



Introduction

#Objective of the Project

- To analyze and compare hotel prices across multiple travel websites.
- Provide users with the best possible deals using data-driven insights.

#Key Technologies Used:

- Web Scraping: Requests, BeautifulSoup
- Data Processing: Pandas, SQL, MS excel
- Visualization: Power BI



Data Collection Process

Sources of Data:

- Data scraped from MyTrip, Booktrip.com, Explore.in, Travel.in , Tripfix.com etc.

Method Used:

- Web Scraping: Extracted hotel names, prices, locations, ratings, and availability.

Challenges Faced:

Handling dynamic websites with beautiful soup.

Avoiding bans using rotating user agents & proxies.

Data Storage:

- Cleaned and stored in CSV files.



Data Cleaning & Transformation

Handling Missing Data:

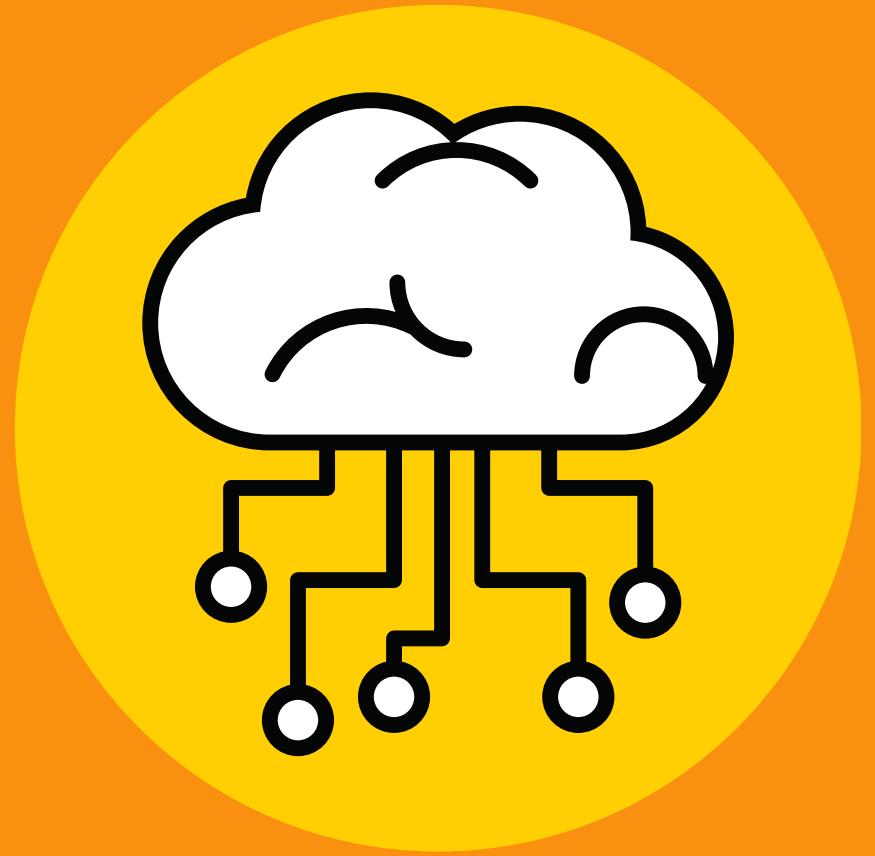
- Filled missing values and standardized price formats.

Data Transformation:

- Converted multi-currency pricing into a common currency (e.g., INR/USD).
- Created calculated columns (e.g., price per night, rating-weighted score).

ETL Process:

- Extract → Transform → Load into Power BI.



Power BI Dashboard Overview

#Dashboard Features:

- Interactive Filters (City, Check-in Date, Room Type, Price Range).
- Dynamic Pricing Trends (Compare different websites).
- Top 10 Best Deals Based on Ratings & Price.
- KPI Scorecards for Price Variance & Trends.



Dynamic Analysis with DAX & Measures

DAX Queries Used:

- Dynamic Ranking of Websites by Price.
- Average Price Calculation Per City.
- Discount % Computation (Based on highest & lowest prices).

Example Measures in Power BI:

- Lowest Price = **MIN(Hotels[Price])**
- Price Variance = **MAX(Hotels[Price]) - MIN(Hotels[Price])**

Visuals Used:

- Bar Charts: Website-wise price comparison.
- Line Charts: Price trends over time.
- Table View: Hotel-wise price details across websites.



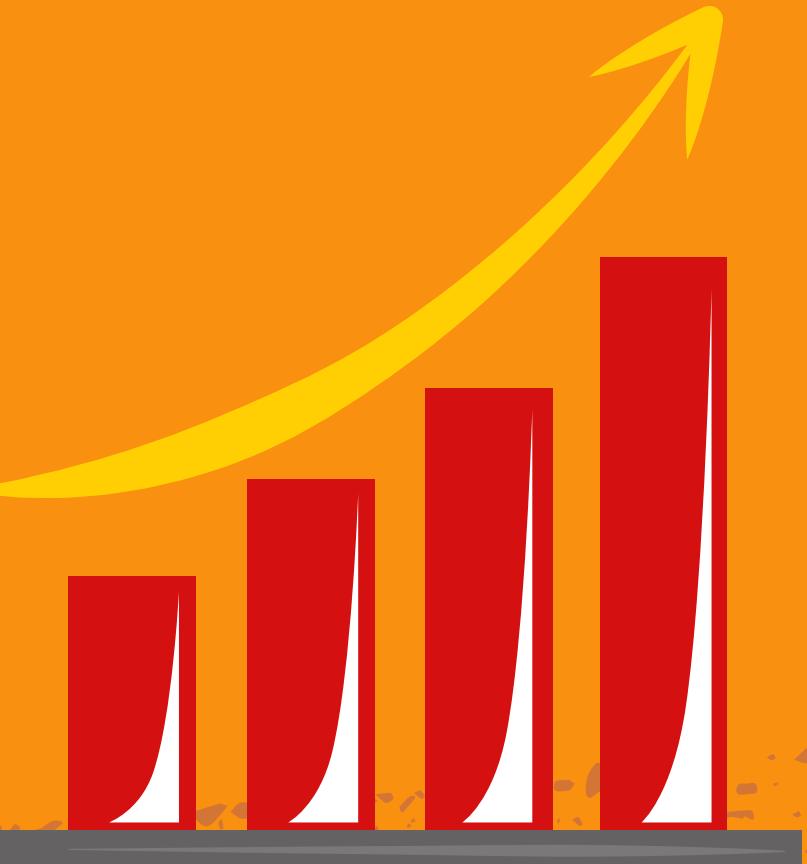
Business Impact & Use Cases

Who Can Benefit?

- Travelers: Find the best hotel deals easily.
- Hotel Owners: Price positioning against competitors.
- Travel Agencies: Data-backed decision-making.

Potential Future Enhancements:

- Predictive pricing analysis using machine learning.
- AI-driven recommendations based on past bookings.



Challenges & learnings

Challenges Faced:

- Handling CAPTCHA & anti-scraping mechanisms.
- Ensuring data accuracy with real-time updates.

Key Learnings:

- Efficient data scraping using BeautifulSoup for dynamic websites.
- Advanced Power BI techniques for enhanced visualization.



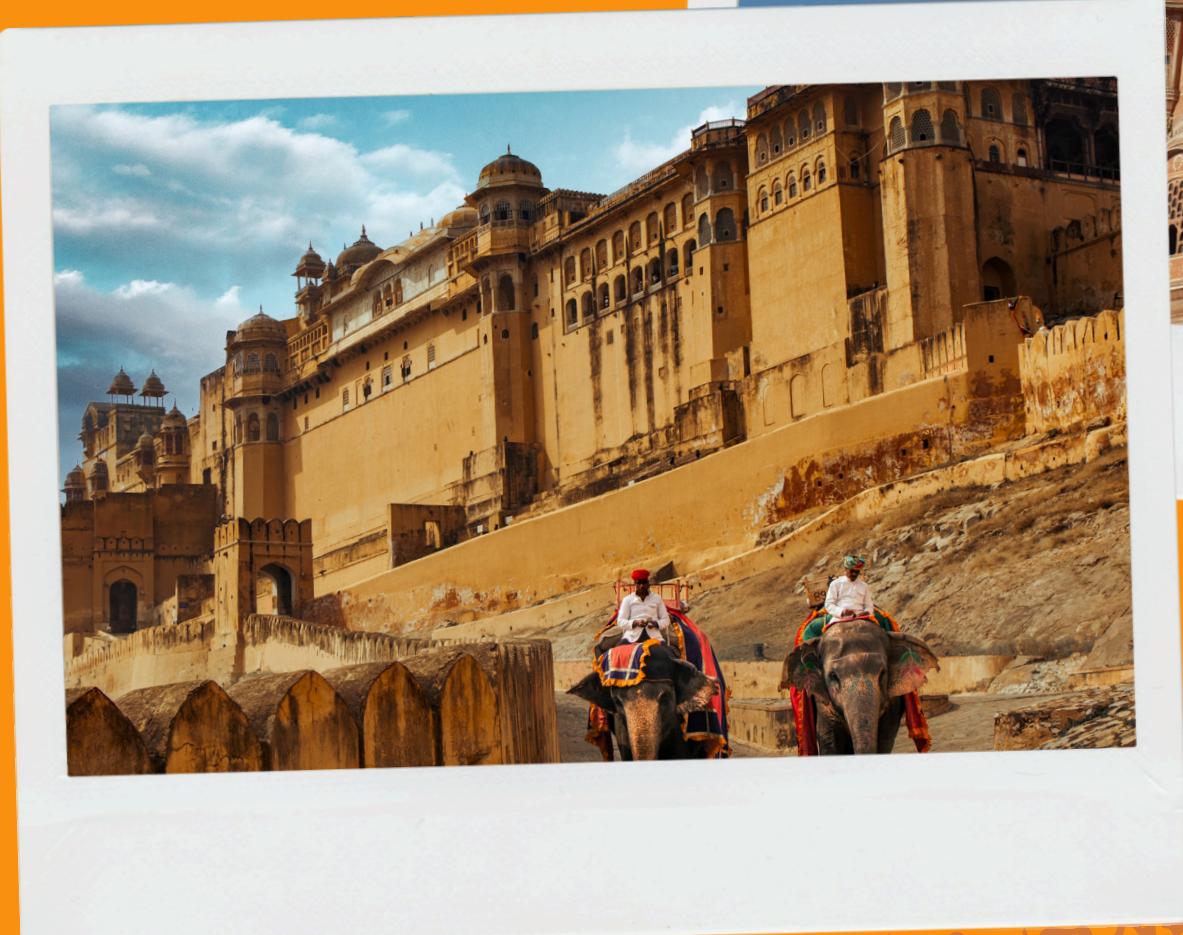
The Ganges River

Experience the sacred Ganges River, a lifeline for millions.



Rajasthan

Explore magnificent forts and palaces
in the royal state of Rajasthan.



Conclusion & Next Steps

Summary of Findings:

- Pricing across platforms varies by 15-40%.
- Some platforms offer better deals based on seasonal trends.

Next Steps:

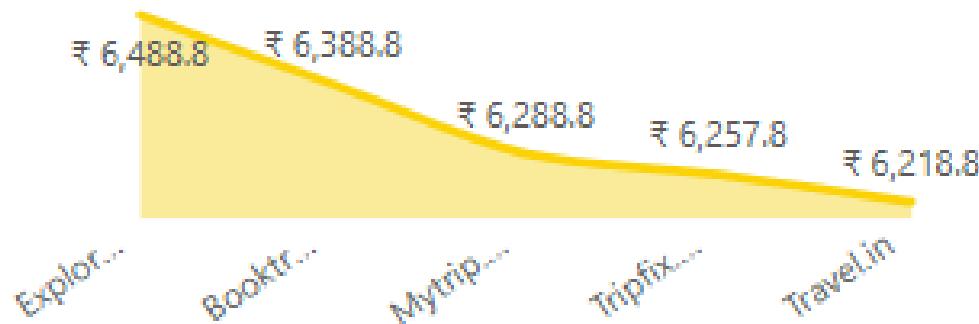
- Implement real-time price monitoring.
- Expand the project to include flight price comparison.



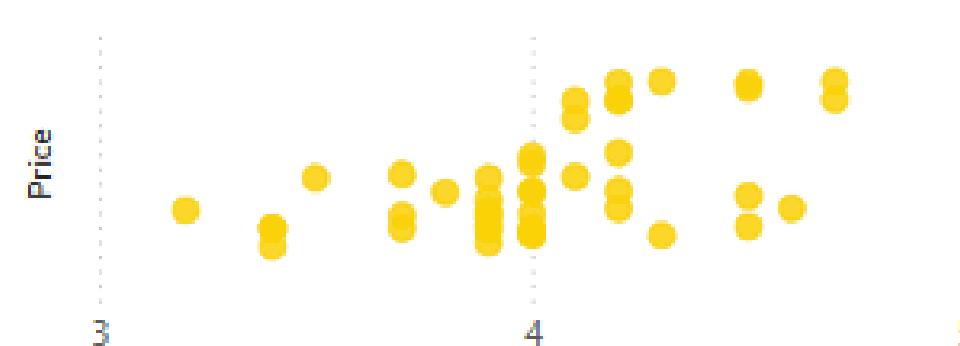
[Select all](#)[Booktrip.com](#)[Explore.in](#)[Mytrip.Com](#)[Travel.in](#)[Tripfix.com](#)

Travel price Comparison Dashboard

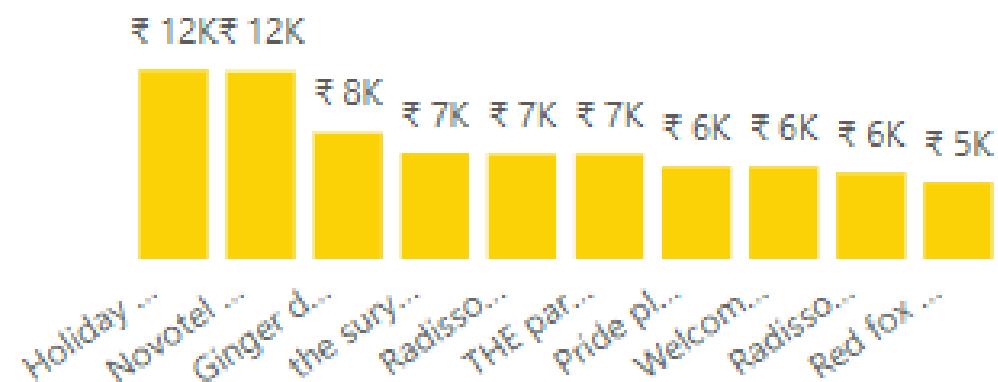
Avg Price per Website by Website



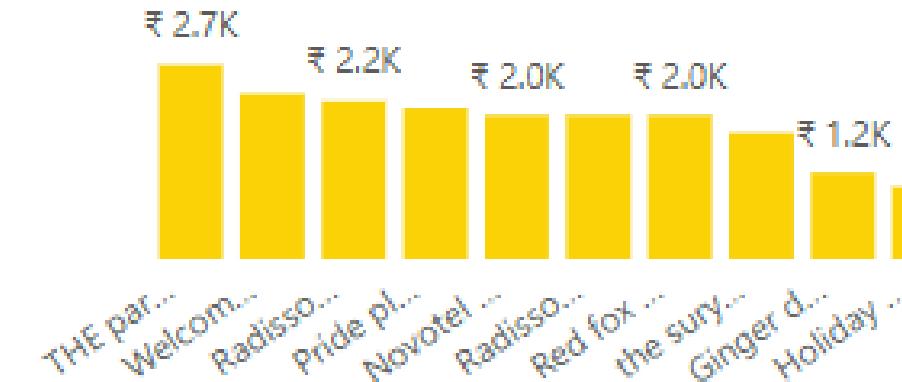
Rating and Price



Highest Price by Hotel Name



Price Difference by Hotel Name

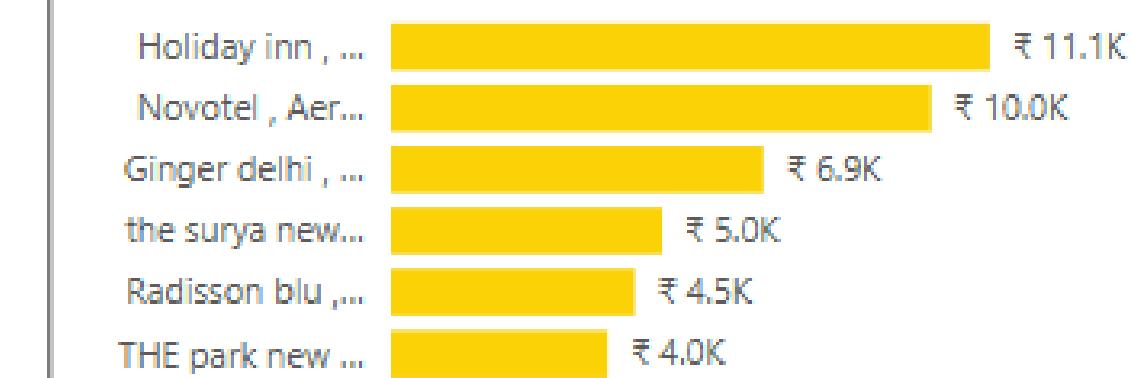


Lowest Price by Hotel Name

₹ 3.6K

Hotel Name	Website	Price	Rating
Welcomehotel by itc hotel dwarka	Booktrip.com	₹ 4,900	3.5
Welcomehotel by itc hotel dwarka	Explore.in	₹ 3,900	4.0
Welcomehotel by itc hotel dwarka	Mytrip.Com	₹ 5,900	4.0
Welcomehotel by itc hotel dwarka	Travel.in	₹ 3,700	4.0
Welcomehotel by itc hotel dwarka	Tripfix.com	₹ 3,600	4.0
the surya new delhi , NFC	Booktrip.com	₹ 6,008	4.2
the surya new delhi , NFC	Explore.in	₹ 6,008	4.2

Lowest Price by Hotel Name





Plan Your Adventure Now

Thank You

