1. Final Set of Prompts

i] System Prompt

This prompt defines the model’s behavior or context for generating travel itineraries. It sets the tone and informs the model that it is an expert travel planner.
System prompt used in the assignment is as follows:

```
You are a highly efficient AI assistant tasked with creating personalized
itineraries for travelers. Your goal is to ensure that each itinerary is:
- Well-organized, with clear morning, afternoon, and evening activities.
- Tailored to the user's preferences (e.g., trip type, budget, dietary
restrictions, etc.).
- Engaging, including unique local experiences and hidden gems.
- Respectful of the user's mobility concerns and seasonal preferences.
- Concise, easy to follow, and aligned with the user's duration and budget.
Always consider any user input provided (e.g., destination, trip duration,
etc.), and refine the trip plan accordingly.
```

ii] User Prompt

The user prompt is dynamically generated based on user inputs (destination, trip duration, preferences). It is detailed enough to guide the model in creating an itinerary that matches the user's requirements.

A] Refinement Prompt

```
Destination: {destination}
Duration: {trip_duration} days
Budget: {budget}
Trip Type: {trip_type}
Dietary Preferences: {dietary_preferences if dietary_preferences else 'None'}
Mobility Concerns: {mobility}
Accommodation: {accommodation}
Seasonal Preferences: {seasonal_preferences}
Areas to Avoid: {avoid_areas if avoid_areas else 'None'}

Please refine these inputs to ensure they are clear, actionable, and consistent.
Clarify any contradictions or vague details (e.g., 'low budget' with 'luxury
accommodation'). Based on this, suggest improvements or considerations to
enhance the trip plan.
```

B] Itinerary Prompt

```
Create a personalized itinerary for {destination} from day {start_day} to day
{end_day}. Include in concise manner:
- Morning activities, including recommendations for transportation.
- Afternoon activities with lunch recommendations.
- Evening activities with dinner recommendations.
- Highlight unique local experiences, fun activities, hidden gems, and top-rated
landmarks.
- Ensure the itinerary aligns with a {budget} budget and the {trip_type} theme.
- Consider dietary preferences ({dietary_preferences}) and mobility concerns
({mobility}).
- Align with seasonal preferences ({seasonal_preferences}).
- Avoid {avoid_areas} if specified.
```

iii] Model Response

The model response is generated by the AI after receiving the system and user prompts. It provides a detailed, structured itinerary for the user.

Sample Output:

Your Personalized Itinerary

Days 1-5:

Day 1:

- **Morning**: Arrive in Pune and start your day with a visit to the historic Shaniwar Wada Fort, a magnificent 18th-century structure. The fort is easily accessible by local bus or auto-rickshaw, offering a budget-friendly way to get around the city.
- **Mid-Morning**: Explore the nearby Peshwe Park, a tranquil green space with beautiful gardens and a peaceful atmosphere. Take a leisurely walk and enjoy the summer breeze.
- **Lunch**: Head to the famous FC Road, known for its street food and budget-friendly restaurants. Try the local Maharashtrian cuisine at 'Hotel Shreyas' or indulge in some spicy chaat at 'Chopati Chaat.'
- **Afternoon**: Visit the Raja Dinkar Kelkar Museum, a unique collection of Indian art and artifacts. The museum showcases traditional Indian culture and is an excellent place to escape the summer heat.
- **Late Afternoon**: Take a stroll through the bustling Tulsi Baug market, where you can find a variety of local products and handicrafts. This market is a hidden gem for those seeking traditional Pune experiences.
- **Dinner**: Enjoy a relaxed dinner at 'Vaishali Restaurant,' known for its South Indian and vegetarian fare. The restaurant offers a peaceful ambiance and is easy on the wallet.

Day 2:

- **Morning**: Begin your day at the Osho International Meditation Resort, a renowned spiritual center. Participate in meditation sessions and explore the beautiful gardens, providing a serene start to your day.
- **Brunch**: Try the healthy and delicious options at the Osho Resort's in-house cafe, offering a unique dining experience.
- **Afternoon**: Visit the Pataleshwar Cave Temple, an ancient rock-cut temple dedicated to Lord Shiva. The temple is a remarkable example of ancient Indian architecture and is a must-see hidden gem.
- **Late Afternoon**: Head to the Bund Garden (now called Mahatma Gandhi Udyan), a well-maintained park on the banks of the Mula-Mutha River. Enjoy a leisurely walk and the summer sun.
- **Dinner**: Sample the street food at 'Good Luck Cafe,' a popular local spot known for its vada pav and other snacks.

Likewise, continues for the remaining days.

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2. Process Documentation

Define Inputs:

First, we identified the key inputs required to create a personalized travel itinerary. These included:

- **Destination**: The place the user wants to visit.
- **Trip Duration**: Number of days the user plans to travel.
- **Budget**: Financial constraints (Low, Moderate, High).
- **Trip Type**: Purpose of the trip (Relaxation, Adventure, Cultural Exploration, etc.).
- **Dietary Preferences**: Specific food restrictions or preferences.
- **Mobility Concerns**: To ensure accessibility for users with mobility restrictions.
- **Accommodation Preference**: Luxury, Budget, Central Location, or No Preference.
- **Seasonal Preferences**: Whether the trip aligns with Summer, Winter, or Any season.
- **Areas to Avoid**: Safety or personal considerations.

Write Prompts:

- **System Prompt**: A detailed instruction to guide the AI in generating high-quality, personalized itineraries tailored to the user's preferences. This ensures consistency and clarity in responses.
- **Refinement Prompt**: Used to validate and refine user inputs to ensure they are actionable and logical (e.g., aligning budget and accommodation preferences).
- **Itinerary Prompt**: Designed to generate day-by-day travel plans, including activities, meal recommendations, and local experiences, tailored to the user’s inputs.

Create Streamlit Application:

Developed a user-friendly web application using Streamlit to collect inputs interactively and display the generated itinerary.

- **Input Form**: Used text inputs, sliders, and dropdowns for collecting user preferences.
- **Validation**: Added checks for mandatory fields and logical mismatches (e.g., Luxury accommodation with a Low budget).
- **Backend Logic**: Integrated Cohere API for generating the refined inputs and final itinerary.

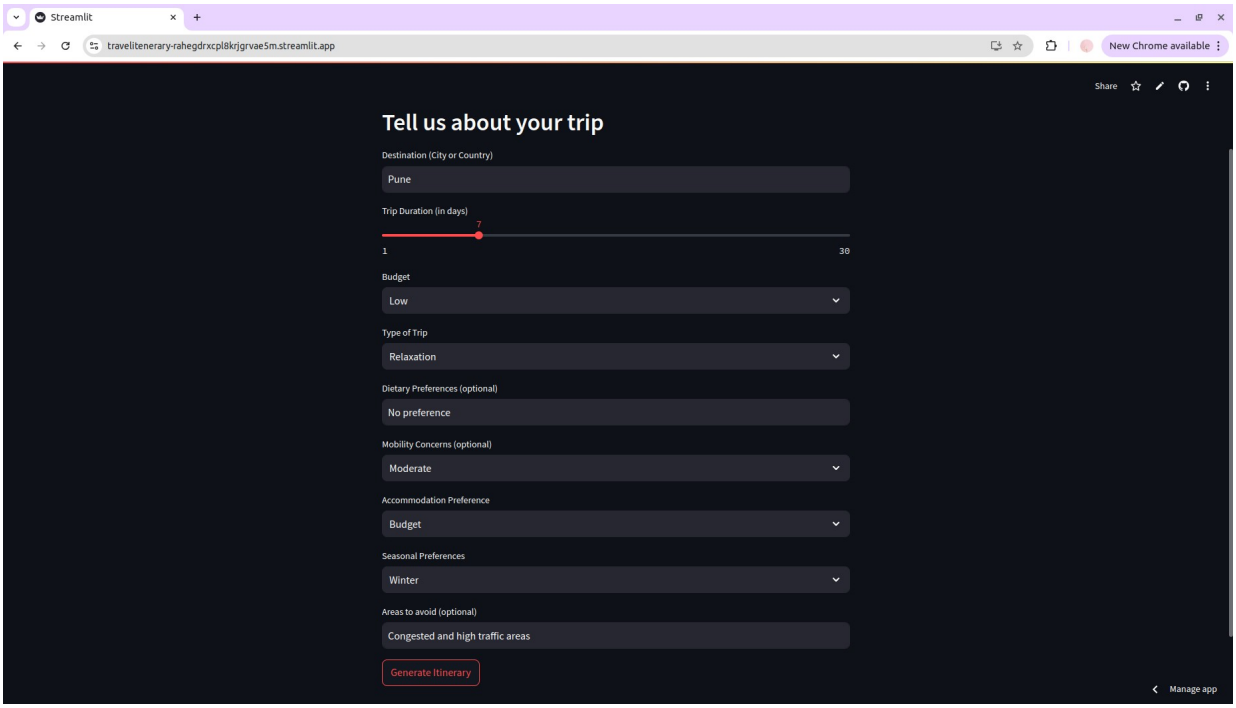
Test the Application:

Iteratively tested the app to ensure proper handling of edge cases like missing inputs, contradictory preferences, and large trip durations. Improved prompts and warnings based on results.

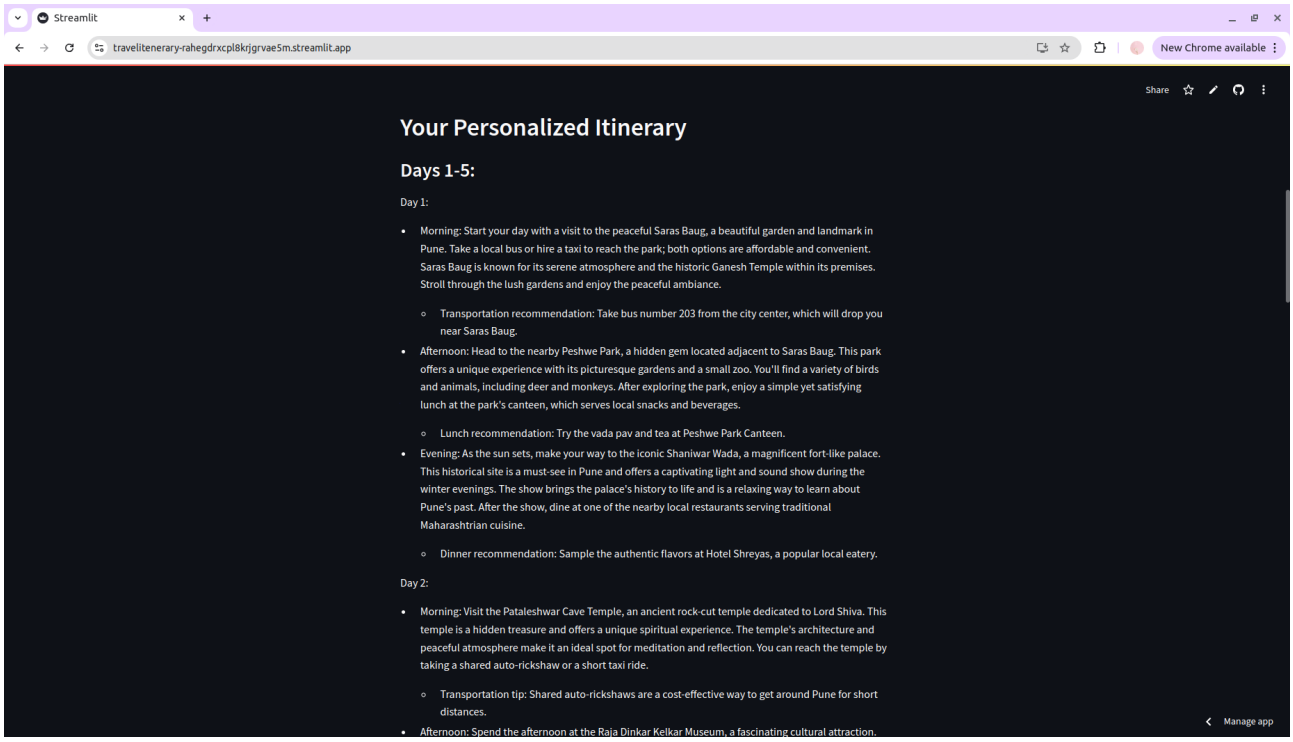
Deploy the Application:

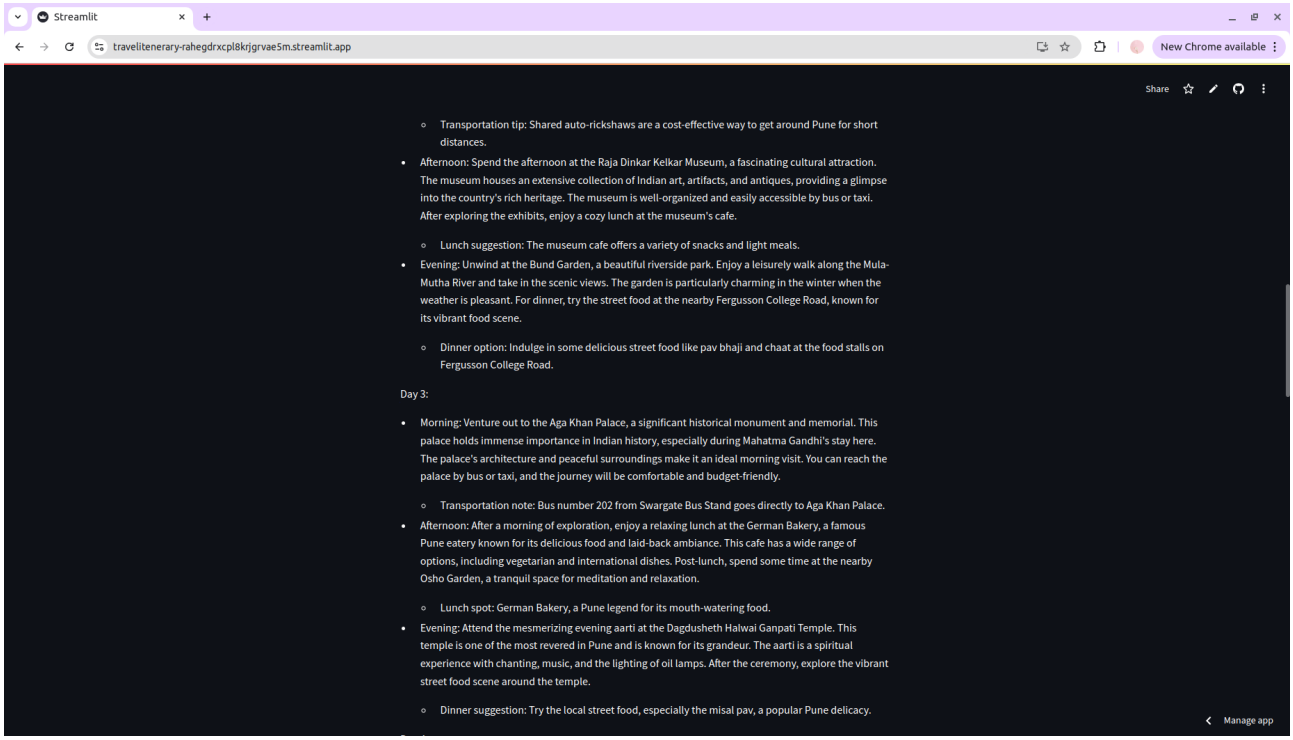
Hosted the Streamlit application on a free service like **Streamlit Cloud**. Shared the public URL for others to access the live app and test it.

Input :



Output :

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Transportation tip: Shared auto-rickshaws are a cost-effective way to get around Pune for short distances.
Afternoon: Spend the afternoon at the Raja Dinkar Kelkar Museum, a fascinating cultural attraction. The museum houses an extensive collection of Indian art, artifacts, and antiques, providing a glimpse into the country's rich heritage. The museum is well-organized and easily accessible by bus or taxi. After exploring the exhibits, enjoy a cozy lunch at the museum's cafe.
Lunch suggestion: The museum cafe offers a variety of snacks and light meals.
Evening: Unwind at the Bund Garden, a beautiful riverside park. Enjoy a leisurely walk along the Mula-Mutha River and take in the scenic views. The garden is particularly charming in the winter when the weather is pleasant. For dinner, try the street food at the nearby Fergusson College Road, known for its vibrant food scene.
Dinner option: Indulge in some delicious street food like pav bhaji and chaat at the food stalls on Fergusson College Road.
Day 3:
Morning: Venture out to the Aga Khan Palace, a significant historical monument and memorial. This palace holds immense importance in Indian history, especially during Mahatma Gandhi's stay here. The palace's architecture and peaceful surroundings make it an ideal morning visit. You can reach the palace by bus or taxi, and the journey will be comfortable and budget-friendly.
Transportation note: Bus number 202 from Swargate Bus Stand goes directly to Aga Khan Palace.
Afternoon: After a morning of exploration, enjoy a relaxing lunch at the German Bakery, a famous Pune eatery known for its delicious food and laid-back ambiance. This cafe has a wide range of options, including vegetarian and international dishes. Post-lunch, spend some time at the nearby Osho Garden, a tranquil space for meditation and relaxation.
Lunch spot: German Bakery, a Pune legend for its mouth-watering food.
Evening: Attend the mesmerizing evening aarti at the Dagdusheth Halwai Ganpati Temple. This temple is one of the most revered in Pune and is known for its grandeur. The aarti is a spiritual experience with chanting, music, and the lighting of oil lamps. After the ceremony, explore the vibrant street food scene around the temple.
Dinner suggestion: Try the local street food, especially the misal pav, a popular Pune delicacy.
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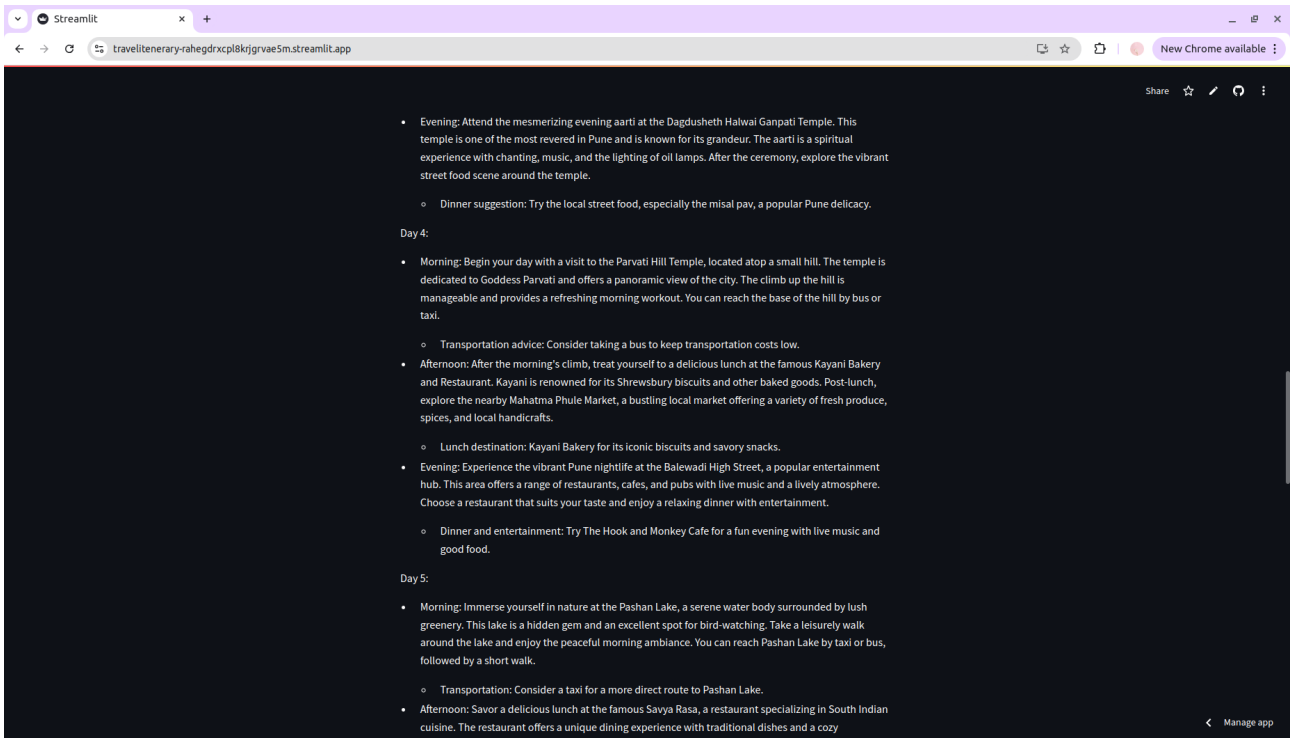
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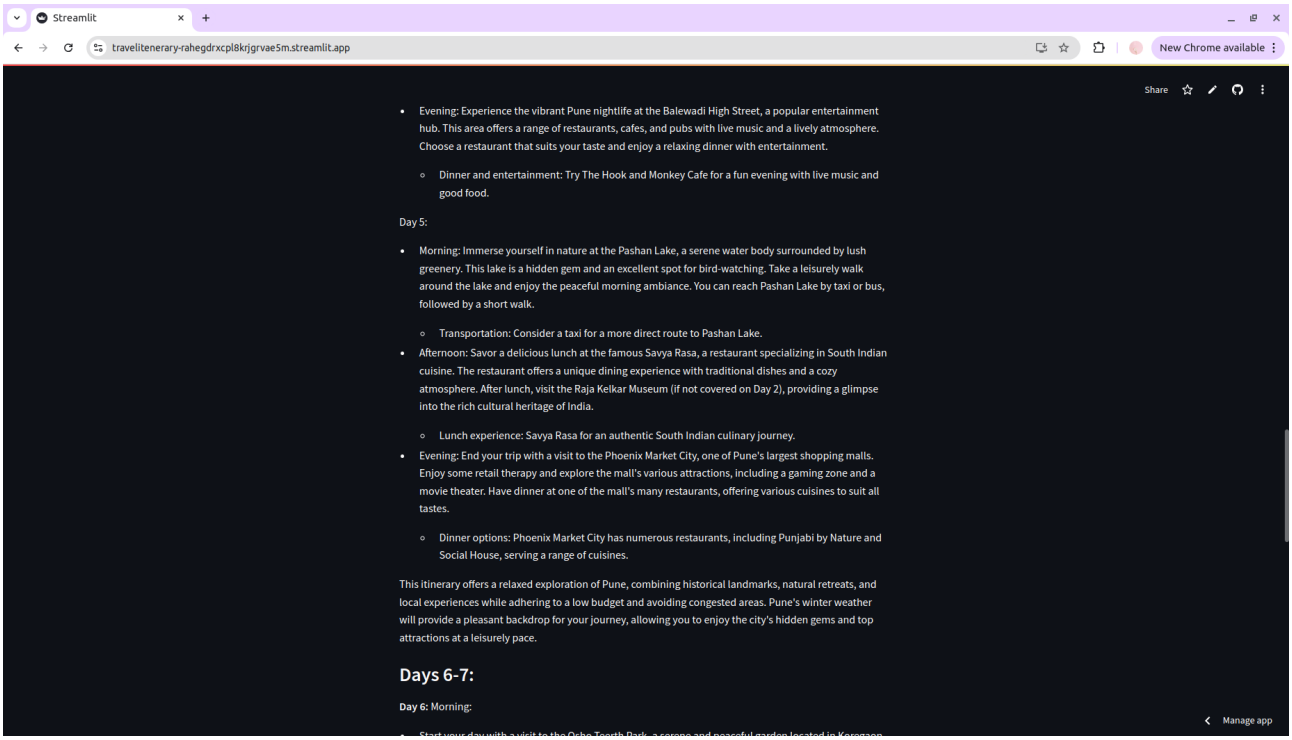
Dinner suggestion: Try the local street food, especially the misal pav, a popular Pune delicacy.
Day 4:
Morning: Begin your day with a visit to the Parvati Hill Temple, located atop a small hill. The temple is dedicated to Goddess Parvati and offers a panoramic view of the city. The climb up the hill is manageable and provides a refreshing morning workout. You can reach the base of the hill by bus or taxi.
Transportation advice: Consider taking a bus to keep transportation costs low.
Afternoon: After the morning's climb, treat yourself to a delicious lunch at the famous Kayani Bakery and Restaurant. Kayani is renowned for its Shrewsbury biscuits and other baked goods. Post-lunch, explore the nearby Mahatma Phule Market, a bustling local market offering a variety of fresh produce, spices, and local handicrafts.
Lunch destination: Kayani Bakery for its iconic biscuits and savory snacks.
Evening: Experience the vibrant Pune nightlife at the Balewadi High Street, a popular entertainment hub. This area offers a range of restaurants, cafes, and pubs with live music and a lively atmosphere. Choose a restaurant that suits your taste and enjoy a relaxing dinner with entertainment.
Dinner and entertainment: Try The Hook and Monkey Cafe for a fun evening with live music and good food.
Day 5:
Morning: Immerse yourself in nature at the Pashan Lake, a serene water body surrounded by lush greenery. This lake is a hidden gem and an excellent spot for bird-watching. Take a leisurely walk around the lake and enjoy the peaceful morning ambiance. You can reach Pashan Lake by taxi or bus, followed by a short walk.
Transportation: Consider a taxi for a more direct route to Pashan Lake.
Afternoon: Savor a delicious lunch at the famous Savya Rasa, a restaurant specializing in South Indian cuisine. The restaurant offers a unique dining experience with traditional dishes and a cozy
Manage app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Day 5:
Morning: Immerse yourself in nature at the Pashan Lake, a serene water body surrounded by lush greenery. This lake is a hidden gem and an excellent spot for bird-watching. Take a leisurely walk around the lake and enjoy the peaceful morning ambiance. You can reach Pashan Lake by taxi or bus, followed by a short walk.
Transportation: Consider a taxi for a more direct route to Pashan Lake.
Afternoon: Savor a delicious lunch at the famous Savya Rasa, a restaurant specializing in South Indian cuisine. The restaurant offers a unique dining experience with traditional dishes and a cozy atmosphere. After lunch, visit the Raja Kelkar Museum (if not covered on Day 2), providing a glimpse into the rich cultural heritage of India.
Lunch experience: Savya Rasa for an authentic South Indian culinary journey.
Evening: End your trip with a visit to the Phoenix Market City, one of Pune's largest shopping malls. Enjoy some retail therapy and explore the mall's various attractions, including a gaming zone and a movie theater. Have dinner at one of the mall's many restaurants, offering various cuisines to suit all tastes.
Dinner options: Phoenix Market City has numerous restaurants, including Punjabi by Nature and Social House, serving a range of cuisines.
This itinerary offers a relaxed exploration of Pune, combining historical landmarks, natural retreats, and local experiences while adhering to a low budget and avoiding congested areas. Pune's winter weather will provide a pleasant backdrop for your journey, allowing you to enjoy the city's hidden gems and top attractions at a leisurely pace.
Days 6-7:
Day 6: Morning:
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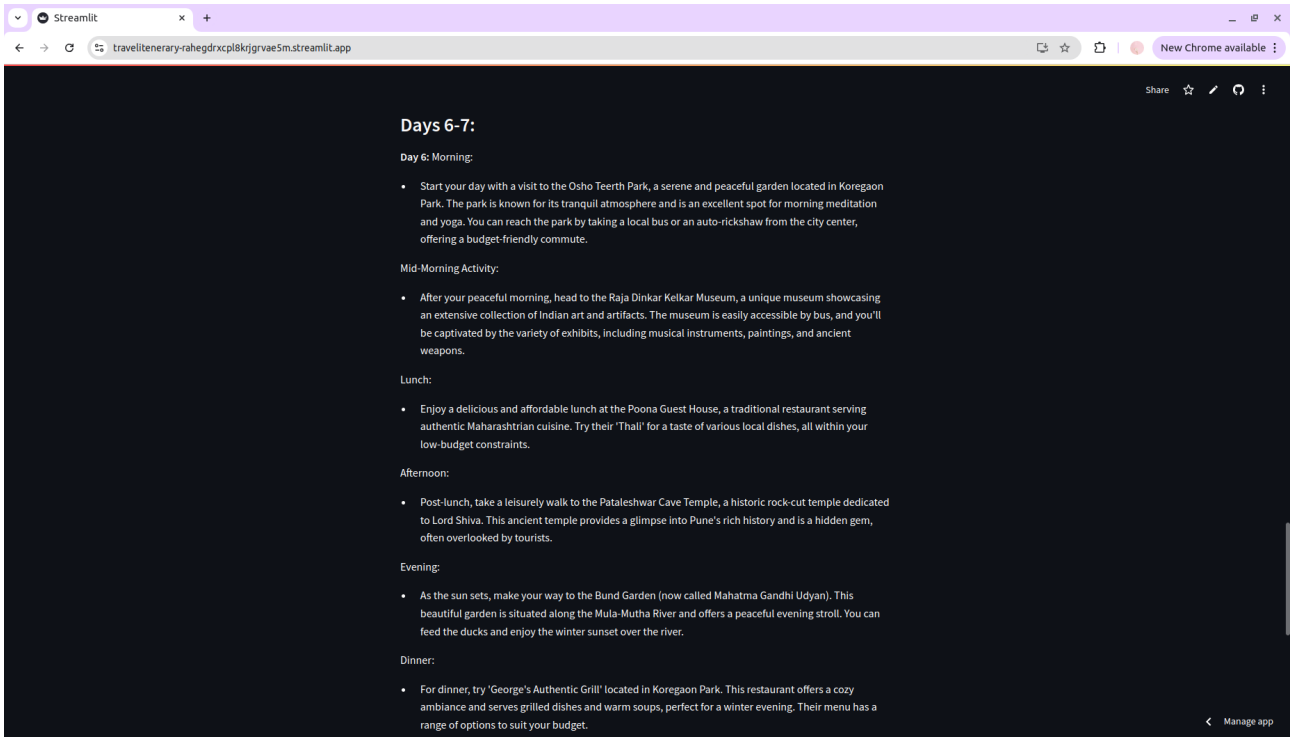
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Days 6-7:
Day 6: Morning:
Start your day with a visit to the Osho Teerth Park, a serene and peaceful garden located in Koregaon Park. The park is known for its tranquil atmosphere and is an excellent spot for morning meditation and yoga. You can reach the park by taking a local bus or an auto-rickshaw from the city center, offering a budget-friendly commute.
Mid-Morning Activity:
After your peaceful morning, head to the Raja Dinkar Kelkar Museum, a unique museum showcasing an extensive collection of Indian art and artifacts. The museum is easily accessible by bus, and you'll be captivated by the variety of exhibits, including musical instruments, paintings, and ancient weapons.
Lunch:
Enjoy a delicious and affordable lunch at the Poona Guest House, a traditional restaurant serving authentic Maharashtrian cuisine. Try their 'Thali' for a taste of various local dishes, all within your low-budget constraints.
Afternoon:
Post-lunch, take a leisurely walk to the Pataleshwar Cave Temple, a historic rock-cut temple dedicated to Lord Shiva. This ancient temple provides a glimpse into Pune's rich history and is a hidden gem, often overlooked by tourists.
Evening:
As the sun sets, make your way to the Bund Garden (now called Mahatma Gandhi Udyan). This beautiful garden is situated along the Mula-Mutha River and offers a peaceful evening stroll. You can feed the ducks and enjoy the winter sunset over the river.
Dinner:
For dinner, try 'George's Authentic Grill' located in Koregaon Park. This restaurant offers a cozy ambiance and serves grilled dishes and warm soups, perfect for a winter evening. Their menu has a range of options to suit your budget.
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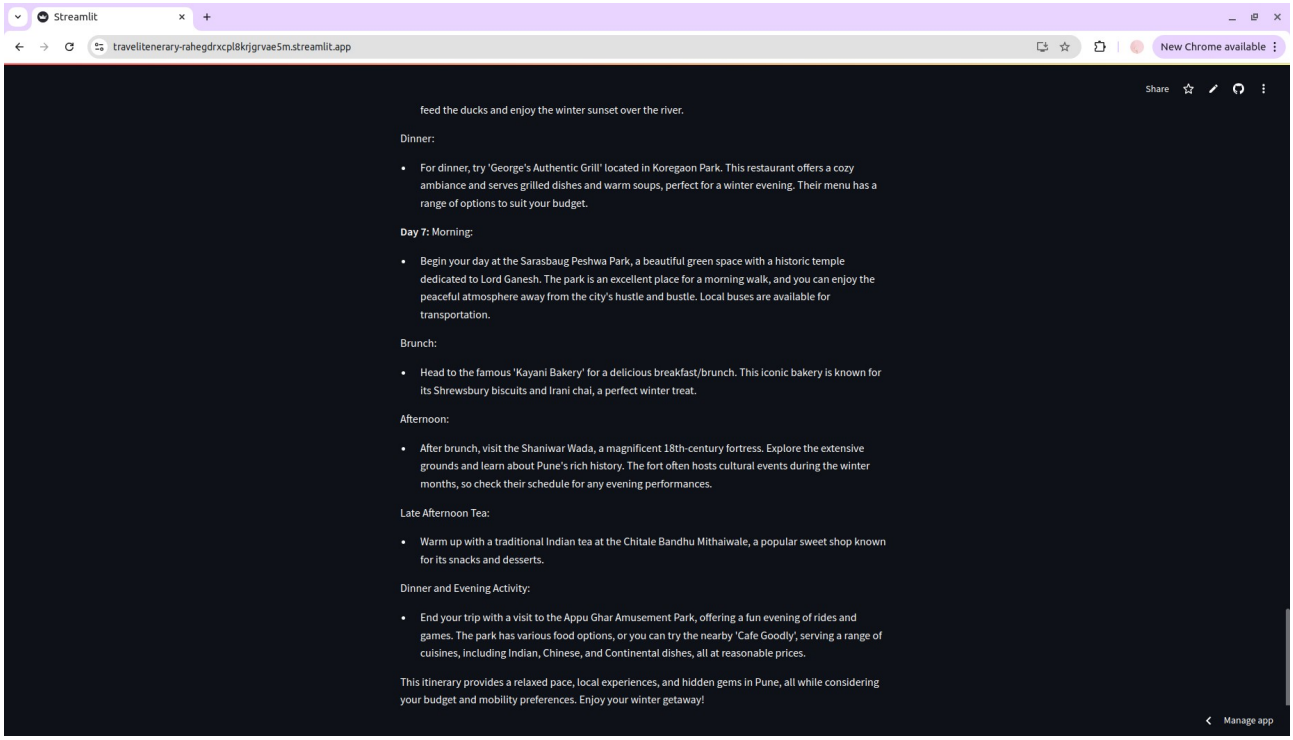

Link to Test Live Application:

[Travel Itinerary App on Streamlit Cloud]