

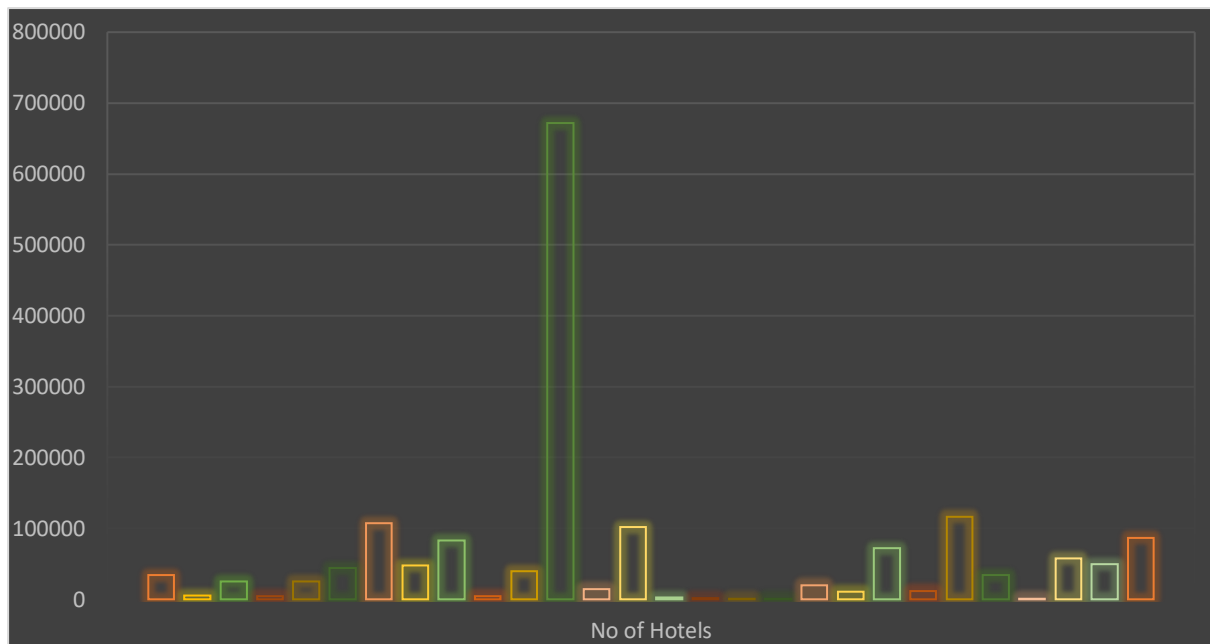
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PROJECT 2

1.Which state has the highest number of hotels? Depict this via a bar graph that compares all states?

A data set containing the list of states and number of hotels in a state is given:

Serial No.	States	No of Hotels
1	Andhra Pradesh	34000
2	Arunachal Pradesh	5000
3	Assam	25000
4	Bihar	4000
5	Chhattisgarh	25000
6	Goa	44000
7	Gujarat	107000
8	Haryana	48000
9	Himachal Pradesh	83000
10	Jharkhand	4000
11	Karnataka	40000
12	Kerala	672000
13	Madhya Pradesh	14000
14	Maharashtra	102000
15	Manipur	3000
16	Meghalaya	2000
17	Mizoram	1000
18	Nagaland	1000
19	Odisha	20000
20	Punjab	11000
21	Rajasthan	72000
22	Sikkim	12000
23	Tamil Nadu	116000
24	Telangana	34000
25	Tripura	1000
26	Uttar Pradesh	58000
27	Uttarakhand	50000
28	West Bengal	87000

Plotting bar graph for depicting the highest number of hotels using Excel:



From the above bar graph, by comparing all the states with respect to the number of hotels, we can clearly observe that “**Kerala**” has highest number of hotels with count of 672000.

2.Which states have three types of climatic conditions? (Convert the map, an unstructured data, to an Excel file in a structured format and mention the number of climates along with the state)

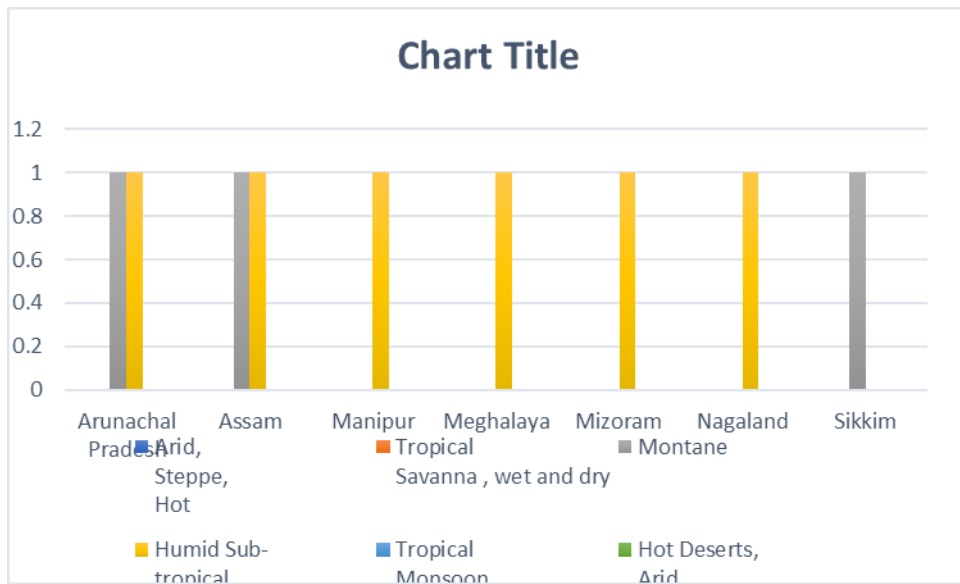
An unstructured data is converted to a structured data in an Excel. The data consists of Number of Climates along with states.

States	Arid, Steppe, Hot	Tropical Savanna , wet and dry	Montane	Humid Sub-tropical	Tropical Monsoon	Hot Deserts, Arid	Total number of Climates
Andhra Pradesh	1	1	0	0	0	0	2
Arunachal Pradesh	0	0	1	1	0	0	2
Assam	0	0	1	1	0	0	2
Bihar	0	0	0	1	0	0	1
Chattisgarh	0	1	0	1	0	0	2
Goa	0	0	0	0	1	0	1
Gujrat	1	0	0	1	0	1	3
Haryana	1	0	0	1	0	1	3
Himachal Pradesh	1	0	1	1	0	0	3
Jharkhand	0	1	0	1	0	0	2
Karnataka	0	1	0	0	1	0	2
Kerla	0	0	0	0	1	0	1
Madhya Pradesh	0	1	0	1	0	0	2
Maharashtra	1	1	0	0	1	0	3
Manipur	0	0	0	1	0	0	1
Meghalaya	0	0	0	1	0	0	1
Mizoram	0	0	0	1	0	0	1
Nagaland	0	0	0	1	0	0	1
Odisha	0	1	0	1	0	0	2
Punjab	1	0	0	1	0	1	3
Rajasthan	1	0	0	1	0	1	3
Sikkim	0	0	1	0	0	0	1
Tamil Nadu	1	1	0	0	1	0	3
Telangana	1	1	0	0	0	0	2
Tripura	0	0	0	1	0	0	1
Uttar Pradesh	1	0	0	1	0	0	2
Uttarakhand	0	0	1	1	0	0	2
West Bengal	0	1	0	1	0	0	2

From the above data we can infer that: The states with 3 types of climatic conditions are: **“Gujrat, Haryana, Himachal Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu”**

3. Among the northeastern states which are best to set up a hotel? Use Clustered Column Chart and give recommendations for hotel industry investors?

The North Eastern states in India are: Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura.



From the above Clustered Column Chart, We Understand that the North-Eastern States have **Montane** and **Humid Subtropical** climates.

The climate's influence on tourism varies depending on tourists' preferences and activities. Both montane and humid subtropical climates offer unique attractions. Here's a detailed look at each:

Montane Climate:

- **Characteristics:** Cooler temperatures, diverse flora and fauna, scenic landscapes, and opportunities for adventure sports like trekking and mountaineering.
- **Tourist Preferences:** Ideal for those seeking a retreat from hot weather, nature lovers, and adventure enthusiasts.
- **States:**
 - **Arunachal Pradesh:** Known for its scenic beauty, monasteries, and adventure activities.
 - **Assam:** Besides montane regions, it offers tea gardens and wildlife sanctuaries.
 - **Sikkim:** Famous for its mountains, including Kanchenjunga, and Buddhist monasteries.

Humid Subtropical Climate:

- **Characteristics:** Warm summers, mild winters, lush greenery, and diverse cultural heritage.
- **Tourist Preferences:** Suitable for year-round travel, nature lovers, and those interested in local culture and festivals.
- **States:**
 - **Manipur:** Known for its rich culture, festivals, and natural beauty.
 - **Meghalaya:** Famous for its heavy rainfall, caves, and living root bridges.
 - **Mizoram:** Offers beautiful landscapes, tribal culture, and festivals.

- **Nagaland:** Known for its tribal culture, festivals, and scenic beauty.

Best Climate for Tourism:

1. **Montane Climate:** Offers a cooler escape and diverse activities, especially appealing in the summer months.
2. **Humid Subtropical Climate:** Provides a more consistent climate year-round, making it accessible and attractive to a wide range of tourists.

Recommendations for Building More Hotels:

1. **Arunachal Pradesh and Sikkim (Montane Climate):**
 - **Advantages:** Cooler temperatures, beautiful landscapes, adventure tourism.
 - **Potential:** High for building hotels catering to adventure seekers, nature lovers, and those seeking a retreat.
2. **Meghalaya (Humid Subtropical Climate):**
 - **Advantages:** Unique natural attractions like caves and living root bridges, heavy rainfall creating lush greenery.
 - **Potential:** High for eco-tourism and cultural tourism, appealing to a broad audience year-round.

Summary:

- **Montane Climate States (Arunachal Pradesh, Sikkim):** Best for tourists seeking adventure, cooler climates, and scenic retreats. These states have high potential for hotel development, especially in the summer months.
- **Humid Subtropical Climate States (Meghalaya):** Offer consistent year-round appeal with cultural and natural attractions. They can attract a wide range of tourists and also have significant potential for hotel development.

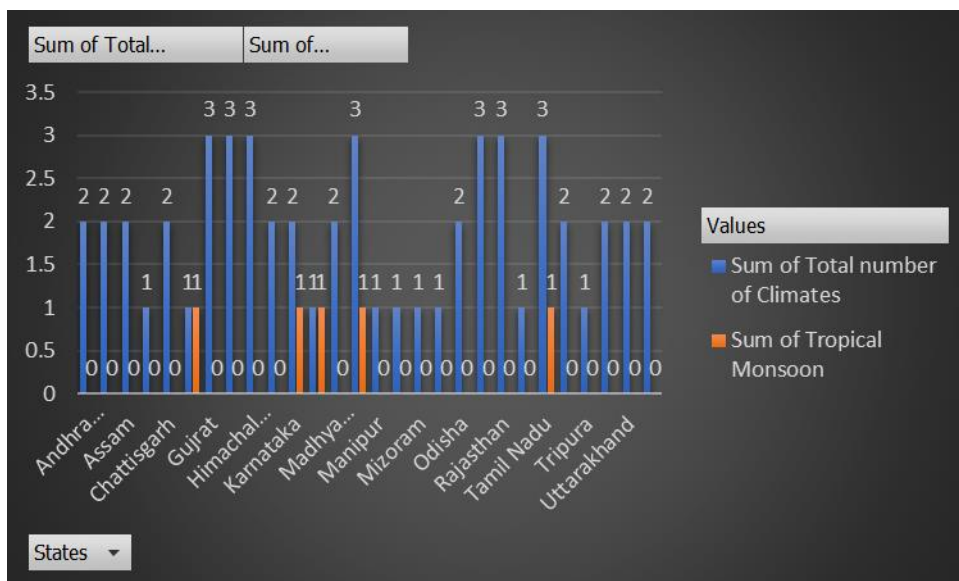
Based on climate and tourism potential, **Arunachal Pradesh, Sikkim, and Meghalaya** are ideal for building more hotels to accommodate tourists.

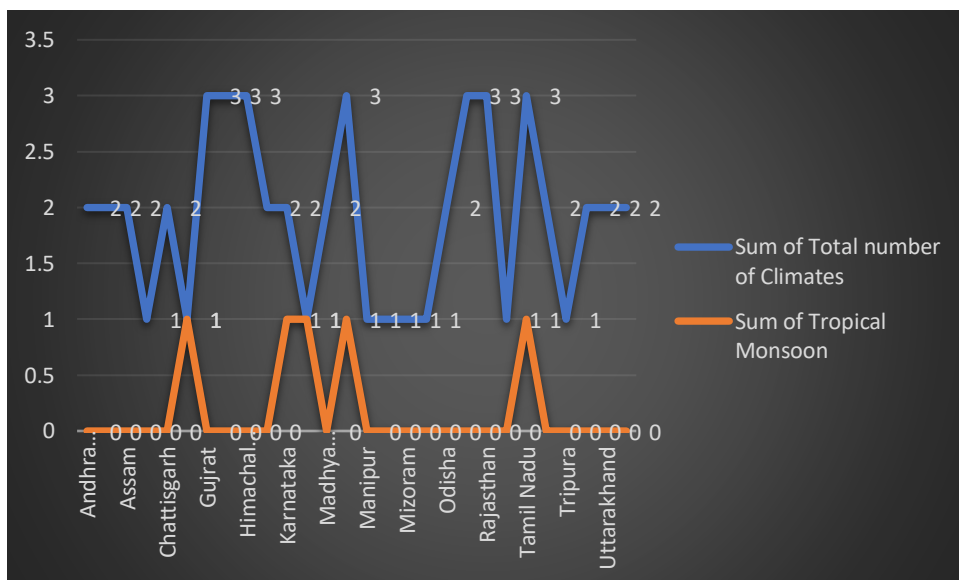
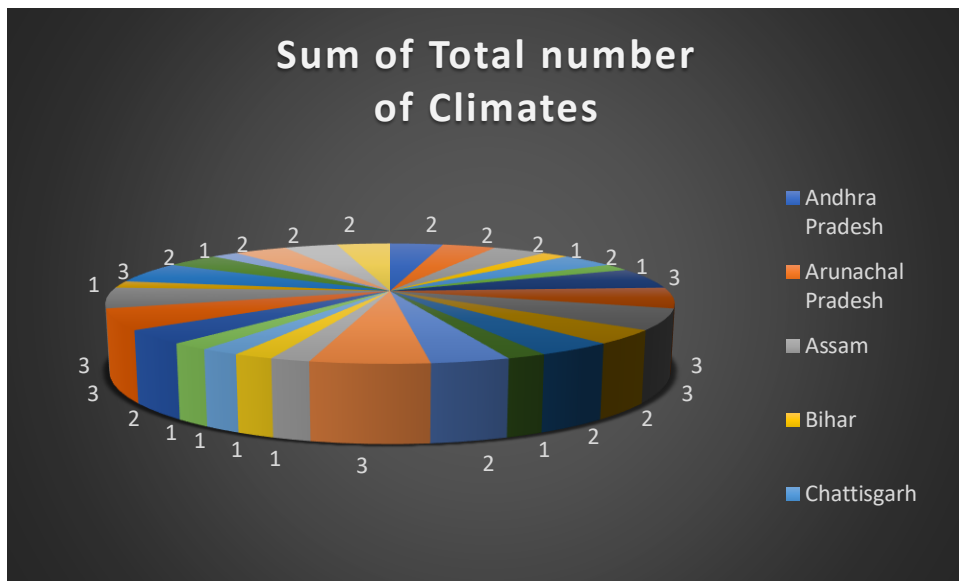
4. Customize the pivot charts to add/change the fields in the fields list with other fields and by using chart styles to customize the charts. (Choose the data and parameters according to your choice)

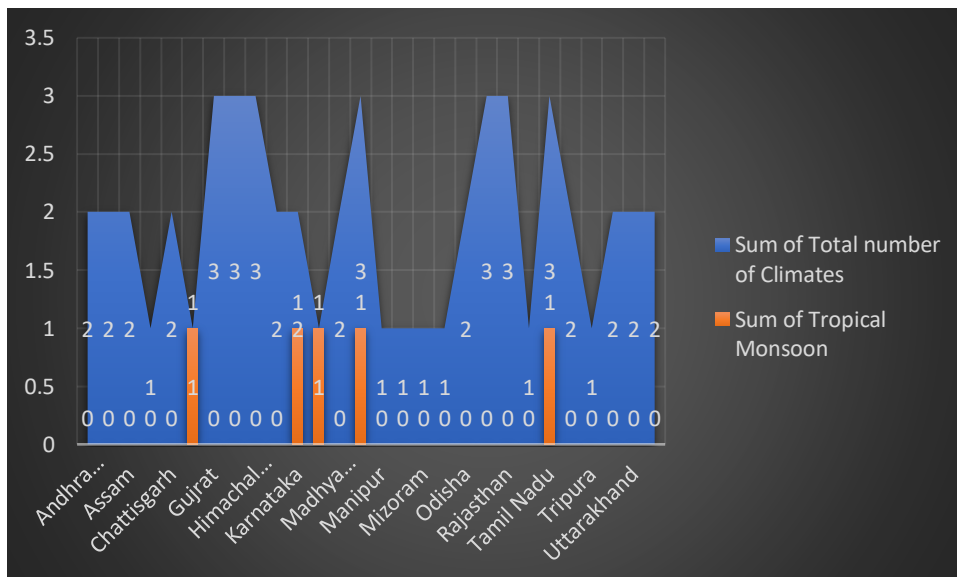
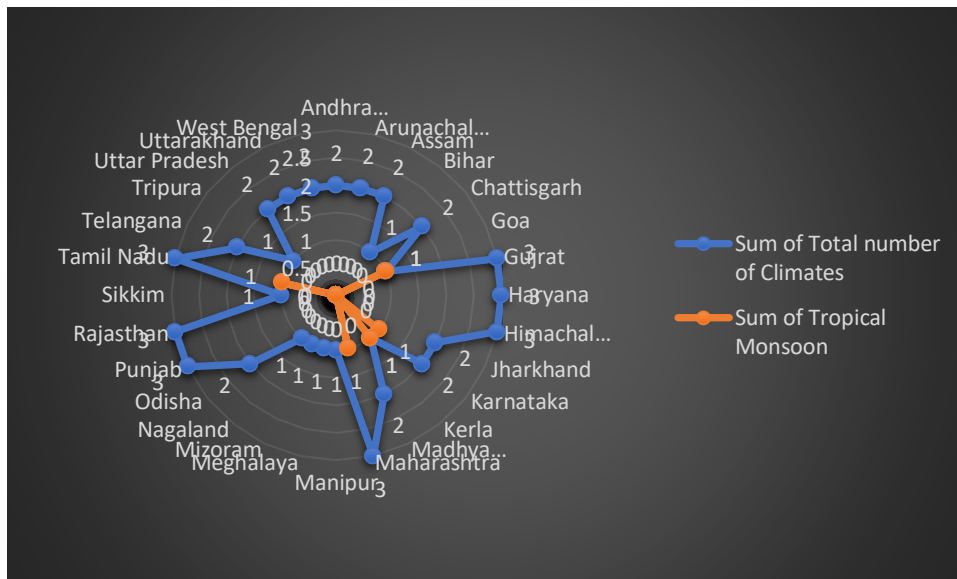
Here are different types of pivot chart plotted.

Based on number of climates in states and states with tropical monsoon climate:

Row Labels	Sum of Total number of Climates	Sum of Tropical Monsoon
Andhra Pradesh	2	0
Arunachal Pradesh	2	0
Assam	2	0
Bihar	1	0
Chattisgarh	2	0
Goa	1	1
Gujrat	3	0
Haryana	3	0
Himachal Pradesh	3	0
Jharkhand	2	0
Karnataka	2	1
Kerala	1	1
Madhya Pradesh	2	0
Maharashtra	3	1
Manipur	1	0
Meghalaya	1	0
Mizoram	1	0
Nagaland	1	0
Odisha	2	0
Punjab	3	0
Rajasthan	3	0
Sikkim	1	0
Tamil Nadu	3	1
Telangana	2	0
Tripura	1	0
Uttar Pradesh	2	0
Uttarakhand	2	0
West Bengal	2	0
Grand Total	54	5







5. Which is the best state for setting up a hotel? Why?

The best states in India for setting up hotels to accommodate tourists, considering climate, cultural heritage, historical monuments, natural beauty, greenery, oceanic beauty, peacefulness, and stress-free environments, are **Kerala, Goa, Sikkim, Rajasthan and Himachal Pradesh**. Here's why each stands out:

Kerala:

- **Climate:** Enjoy a tropical climate with pleasant temperatures year-round.
- **Cultural Heritage:** Rich cultural traditions and festivals like Onam and Thrissur Pooram.

- **Historical Monuments:** Fort Kochi, Padmanabhapuram Palace, and ancient temples.
- **Natural Beauty:** Lush green landscapes, serene backwaters, and beautiful beaches like Kovalam and Varkala.
- **Greenery:** Known as "God's Own Country" for its abundant greenery and biodiversity.
- **Oceanic Beauty:** Stunning coastline along the Arabian Sea with picturesque beaches and coastal attractions.
- **Peacefulness:** Offers tranquil settings in backwaters and hill stations like Munnar.
- **Stress-Free Environment:** Emphasis on eco-friendly tourism and wellness retreats.

Why Kerala?

Kerala's combination of tropical climate, rich cultural heritage, serene backwaters, lush greenery, beautiful beaches, and emphasis on eco-tourism and wellness makes it an ideal choice for tourists seeking a peaceful and stress-free experience.

Goa:

- **Climate:** Enjoy a tropical monsoon climate with warm weather throughout the year.
- **Cultural Heritage:** Portuguese colonial architecture, vibrant festivals, and traditional Goan cuisine.
- **Historical Monuments:** Old Goa churches, forts like Aguada, and colonial-era buildings.
- **Natural Beauty:** Pristine beaches like Baga, Anjuna, and Palolem, along with scenic landscapes.
- **Greenery:** Coastal greenery and tropical forests.
- **Oceanic Beauty:** Stunning coastline along the Arabian Sea with picturesque beaches and water sports.
- **Peacefulness:** Offers tranquil beachside settings and laid-back lifestyle.
- **Stress-Free Environment:** Known for its relaxed atmosphere and vibrant nightlife.

Why Goa?

Goa's blend of tropical climate, rich cultural heritage, historical monuments, beautiful beaches, oceanic beauty, and relaxed environment makes it a top choice for tourists seeking a stress-free and enjoyable vacation.

Sikkim:

- **Climate:** Enjoy a temperate climate with cool summers and snowy winters in higher altitudes.
- **Cultural Heritage:** Buddhist monasteries, vibrant festivals like Losar, and traditional Sikkimese culture.

- **Historical Monuments:** Rumtek Monastery, Tashiding Monastery, and ancient temples.
- **Natural Beauty:** Stunning Himalayan landscapes, lush valleys, and lakes like Gurudongmar and Tsomgo.
- **Greenery:** Abundant forests and alpine vegetation.
- **Peacefulness:** Offers serene mountain retreats and spiritual ambiance.
- **Stress-Free Environment:** Emphasis on eco-tourism, adventure sports like trekking and mountaineering.

Why Sikkim?

Sikkim's temperate climate, rich cultural heritage, Buddhist monasteries, stunning Himalayan landscapes, greenery, peaceful ambiance, and focus on eco-tourism and adventure make it a serene and stress-free destination for tourists seeking tranquility and natural beauty.

Rajasthan: Historical Monuments and Desert Beauty

- **Climate:** Mostly arid and semi-arid, with pleasant winters.
- **Infrastructure:** Well-developed tourist infrastructure, including airports, roads, and luxury hotels.
- **Historical Monuments:** Home to numerous forts, palaces, and historical sites like Jaipur, Udaipur, Jodhpur, and Jaisalmer.
- **Scenic Beauty:** Unique desert landscapes, colorful cities, and cultural festivals.
- **Nature's Beauty:** National parks like Ranthambore and Sariska for wildlife enthusiasts.

Why?

Rajasthan's rich cultural heritage, historical significance, and well-established infrastructure make it a prime location for hotel development. The state's diverse attractions cater to a broad spectrum of tourists, from history buffs to wildlife lovers.

Himachal Pradesh: Mountains and Adventure

- **Climate:** Predominantly montane with cool summers and snowy winters.
- **Infrastructure:** Improving infrastructure with good road connectivity and expanding air travel options.
- **Historical Monuments:** Colonial-era buildings in Shimla, ancient temples, and monasteries.
- **Scenic Beauty:** Stunning Himalayan landscapes, valleys, and rivers.
- **Nature's Beauty:** Popular hill stations like Manali, Dharamshala, and Dalhousie; adventure sports opportunities.

Why?

Himachal Pradesh's breathtaking mountainous scenery, adventure tourism potential, and pleasant climate make it a highly attractive destination for tourists. The state's growing infrastructure and focus on tourism development provide ample opportunities for setting up hotels.

6. What is the average number of days the rainy season lasts in Indian states?

To determine the average duration of the rainy season in India, we can use the provided Indian map that marks the onset and retreat dates of the southwest monsoon:

- Between June 5th and October 15th spans 137 days.
- From June 10th to October 1st covers 114 days.
- Spanning from June 15th to September 15th gives us 92 days.
- From July 1st to September 1st totals 63 days.

On average, based on these periods, the rainy season in India lasts approximately 100 days.