



Finlatics
ENABLING INSIGHTS

BUSINESS ANALYST EXPERIENCE PROGRAM

PROJECT-2

Submitted By:

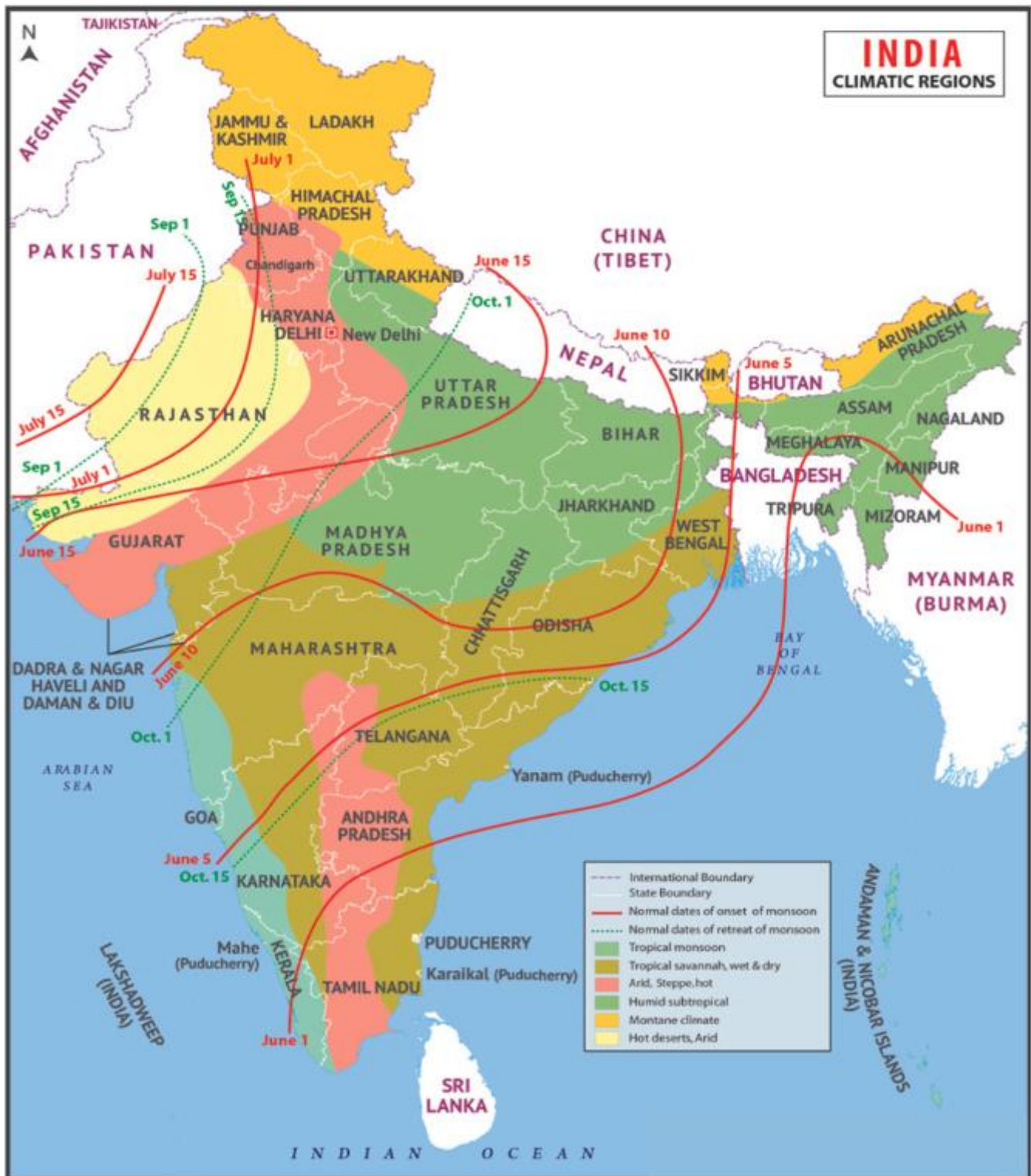
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Case Study



The above-mentioned map showcases the various seasons that are experienced across states in India. A key focus of the map is on the onset and retreat of the southwest monsoons in the country across various states and regions.

The climates of India are mainly divided into four different groups. The classification of these groups is based on the Koppen climate classification system.

- **Tropical Wet (Humid):**

The tropical wet (humid) climate group in India is separated into two subparts: the tropical wet and dry climate, often known as the savannah climate and the tropical monsoon climate. A tropical monsoon climate prevails in the Western Ghats, the Malabar Coast, southern Assam, Lakshadweep, and the Andaman & Nicobar Islands. It has seasonally significant rain and moderate to high temperatures. The wettest months are May through November, and the rain that falls during this time is more than enough for vegetation to grow all year. The most typical climate in the nation is the savannah climate or a tropical wet and dry climate. Except for some areas of the Western Ghats, it is most prevalent throughout the country's inland peninsula. The humid summer months last from June to September, and they are extremely hot.

- **Tropical Dry:**

There are three subgroups of the tropical dry climate group: (a) tropical semi-arid (steppe), (b) subtropical arid (desert), and (c) subtropical semi-arid (steppe). The tropical semi-arid (steppe) climate is found in Karnataka, central Maharashtra, some regions of Tamil Nadu, and Andhra Pradesh. In this type of environment, rainfall is quite unpredictable, and the hot, dry summers last from March through May. Western Rajasthan experiences a subtropical arid (desert) climate with irregular and sparse rainfall. The sub-tropical semi-arid (steppe) climate is present in the tropical desert regions that stretch from Punjab and Haryana to Kathiawar. In this environment, the summertime high temperature can reach 40°C, while rains are unpredictable and typically fall during the summer monsoon season.

- **Subtropical Humid Climate:**

The majority of northern and northeastern India experiences this climate. Summers are quite hot, and winters can see temperatures as low as 0°C. The majority of the time, rain falls in the summer, however, certain places also have snowfall or sporadic rain throughout the winter. The hottest months are May and June, while frost can sometimes be found in the winter for a few months.

- **Mountain Climate:**

In the Himalayas, the temperature drops by 0.6°C for every 100 m of elevation gain, resulting in a variety of climates, from tropical to tundra. The northern side of the western Himalayas, known as the trans-Himalayan region, is chilly, dry, and windswept. In contrast to the well-exposed slopes, the leeward side of the mountains experiences less rain. The months of December through February saw the most snowfall.

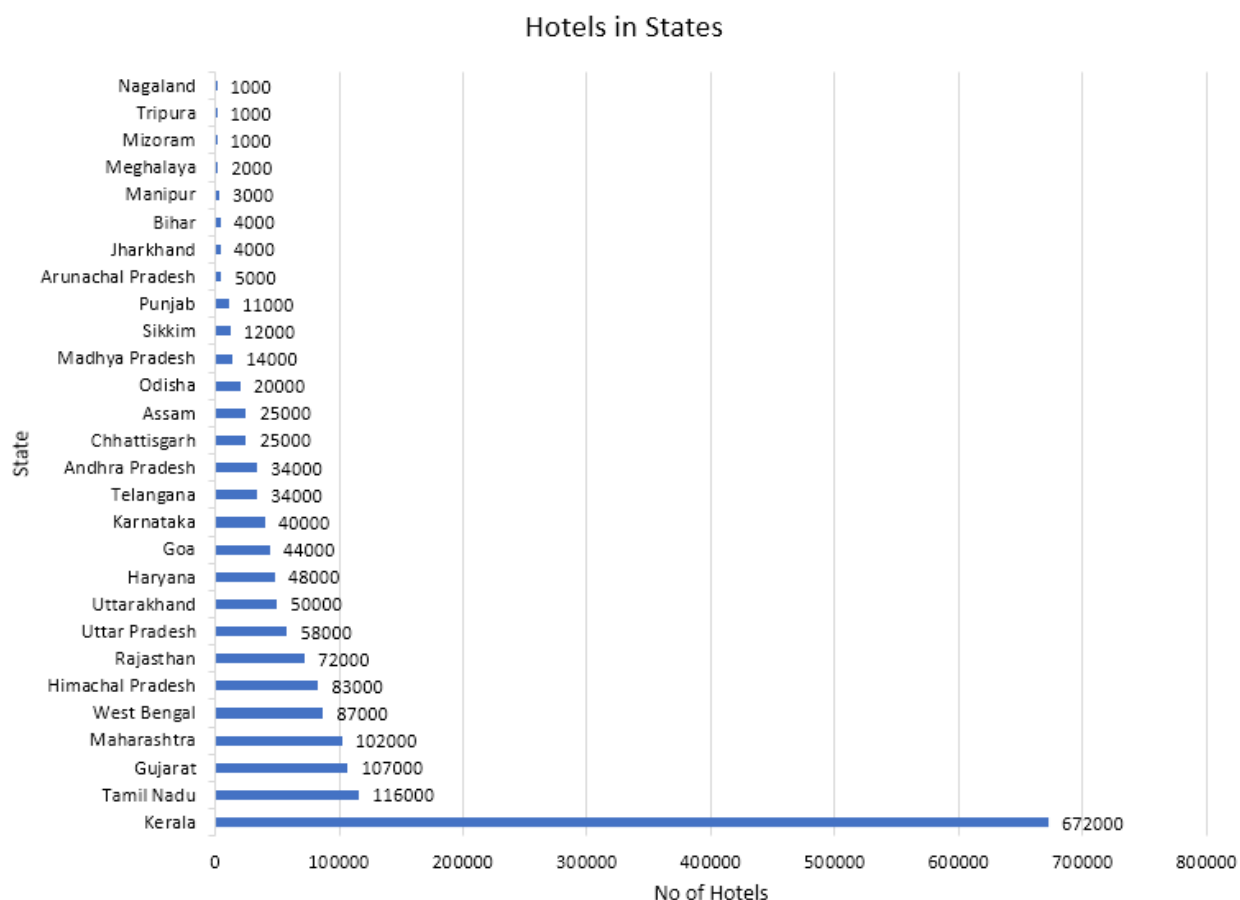
Instruction Set

1. Study the map and draw out key indicating parameters in a list format. Also, think about other parameters that indirectly affect our goal.
2. Collection of data.
3. Do descriptive and diagnostic analysis to fill in the missing data points and scan the outliers.
4. Create separate sheets for each question and create pivot tables accordingly.
5. Draw out conclusions by observing the visual charts made from the pivot tables.
6. All the best! Submit your answers in a PDF file.

Questions

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

States	No of Hotels	% of hotels
Kerala	672000	40.12%
Tamil Nadu	116000	6.93%
Gujarat	107000	6.39%
Maharashtra	102000	6.09%
West Bengal	87000	5.19%
Himachal Pradesh	83000	4.96%
Rajasthan	72000	4.30%
Uttar Pradesh	58000	3.46%
Uttarakhand	50000	2.99%
Haryana	48000	2.87%
Goa	44000	2.63%
Karnataka	40000	2.39%
Telangana	34000	2.03%
Andhra Pradesh	34000	2.03%
Chhattisgarh	25000	1.49%
Assam	25000	1.49%
Odisha	20000	1.19%
Madhya Pradesh	14000	0.84%
Sikkim	12000	0.72%
Punjab	11000	0.66%
Arunachal Pradesh	5000	0.30%
Jharkhand	4000	0.24%
Bihar	4000	0.24%
Manipur	3000	0.18%
Meghalaya	2000	0.12%
Mizoram	1000	0.06%
Tripura	1000	0.06%
Nagaland	1000	0.06%
Grand Total	1675000	100.00%



Kerala (6,72,000 Hotels) has the highest no of hotels by any state.

- 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)

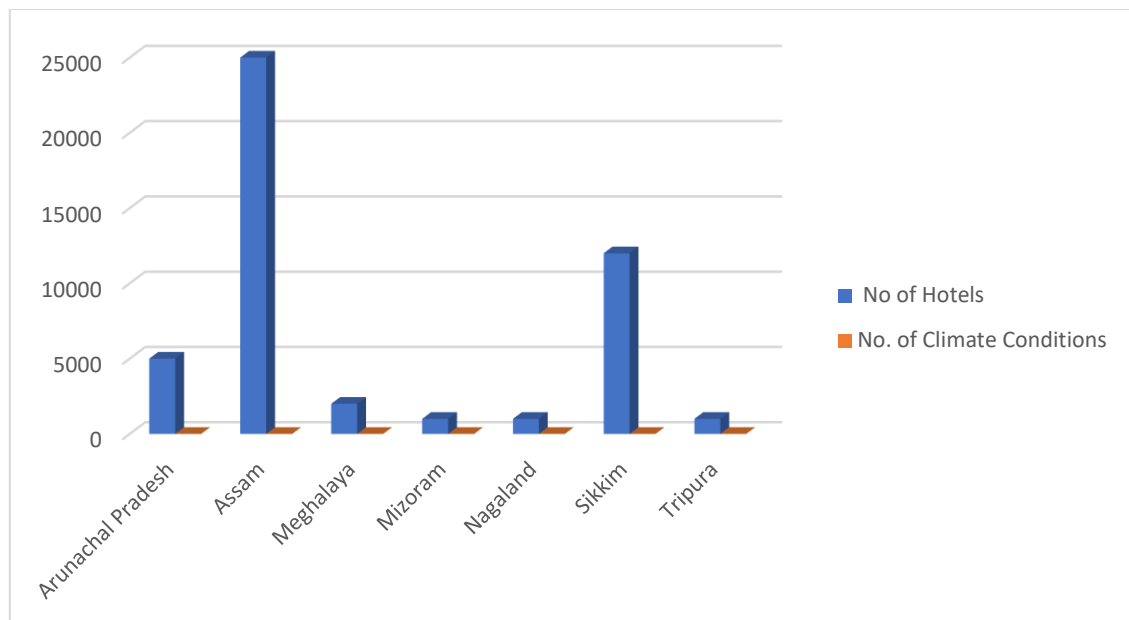
Himachal Pradesh, Madhya Pradesh, and West Bengal have three types of climate conditions

The structured format of the Excel file is shown in the below figure.

States	Climate Conditions				No.of Climate Condtions
Andhra Pradesh	Tropical Wet	Tropical Dry			2
Arunachal Pradesh			Subtropical Humid	Mountian Climate	2
Assam			Subtropical Humid		1
Bihar			Subtropical Humid		1
Chattisgarh	Tropical Wet		Subtropical Humid		2
Goa	Tropical Wet				1
Gujarat	Tropical Wet	Tropical Dry			2
Haryana		Tropical Dry	Subtropical Humid		2
Himachal Pradesh		Tropical Dry	Subtropical Humid	Mountian Climate	3
Jharkhand	Tropical Wet		Subtropical Humid		2
Karnataka	Tropical Wet	Tropical Dry			2
Kerala	Tropical Wet				1
Madhya Pradesh	Tropical Wet	Tropical Dry	Subtropical Humid		3
Maharashtra	Tropical Wet	Tropical Dry			2
Manipur			Subtropical Humid		1
Meghalaya			Subtropical Humid		1
Mizoram			Subtropical Humid		1
Nagaland			Subtropical Humid		1
Odisha	Tropical Wet				1
Punjab		Tropical Dry			1
Rajasthan		Tropical Dry			1
Sikkim				Mountian Climate	1
Tamil Nadu	Tropical Wet	Tropical Dry			2
Telangana	Tropical Wet	Tropical Dry			2
Tripura			Subtropical Humid		1
Uttar Pradesh		Tropical Dry	Subtropical Humid		2
Uttarakhand			Subtropical Humid	Mountian Climate	2
West Bengal	Tropical Wet		Subtropical Humid	Mountian Climate	3

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

States	No of Hotels	No. of Climate Conditions
Arunachal Pradesh	5000	2
Assam	25000	1
Meghalaya	2000	1
Mizoram	1000	1
Nagaland	1000	1
Sikkim	12000	1
Tripura	1000	1
Grand Total	47000	8

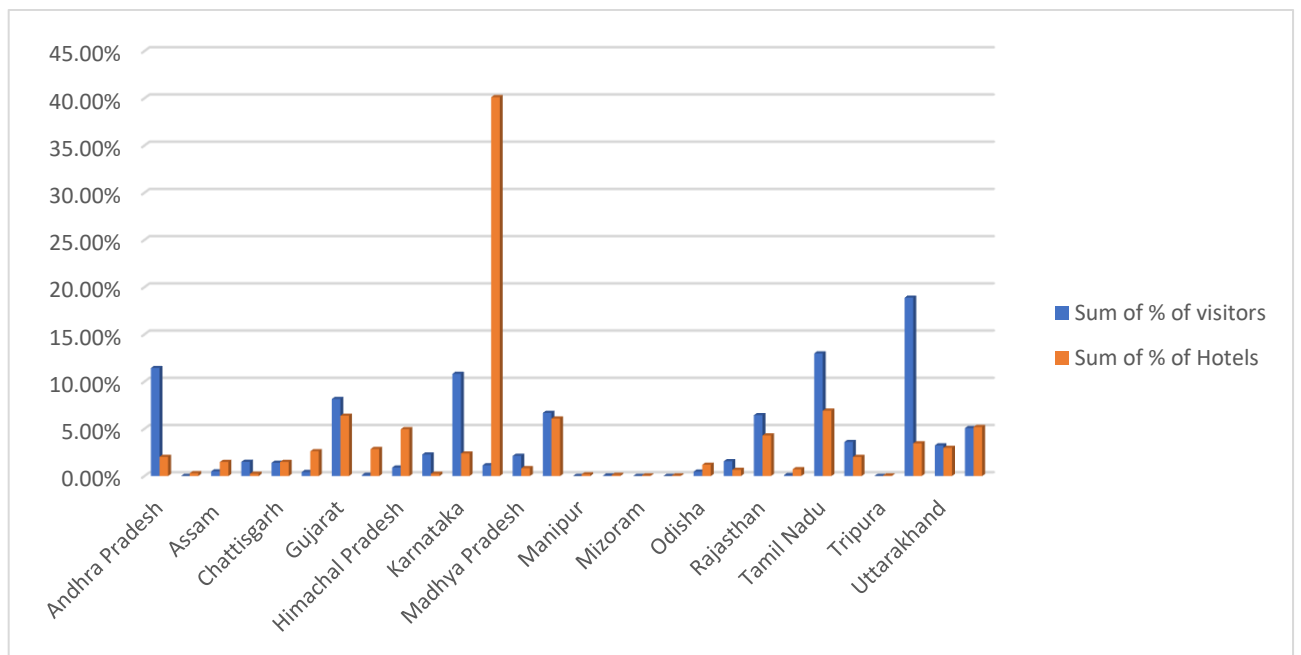


I think **Arunachal Pradesh** is the best state to set up a new hotel because there are fewer hotels for competition and there are two climate conditions every year, so it attracts tourism throughout the year.

- Customise 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)

States	No of Hotels	Tropical Wet Climate	Tropical Dry Climate	Subtropical Humid Climate	Mountain Climate	No. of Climate Conditions
Andhra Pradesh	34000	Tropical Wet	Tropical Dry			2
Arunachal Pradesh	5000			Subtropical Humid	Mountain Climate	2
Assam	25000			Subtropical Humid		1
Bihar	4000			Subtropical Humid		1
Chattisgarh	25000	Tropical Wet		Subtropical Humid		2
Goa	44000	Tropical Wet				1
Gujarat	107000	Tropical Wet	Tropical Dry			2
Haryana	48000		Tropical Dry	Subtropical Humid		2
Himachal Pradesh	83000		Tropical Dry	Subtropical Humid	Mountain Climate	3
Jharkhand	4000	Tropical Wet		Subtropical Humid		2
Karnataka	40000	Tropical Wet	Tropical Dry			2
Kerala	672000	Tropical Wet				1
Madhya Pradesh	14000	Tropical Wet	Tropical Dry	Subtropical Humid		3
Maharashtra	102000	Tropical Wet	Tropical Dry			2
Manipur	3000			Subtropical Humid		1
Meghalaya	2000			Subtropical Humid		1
Mizoram	1000			Subtropical Humid		1
Nagaland	1000			Subtropical Humid		1
Odisha	20000	Tropical Wet				1
Punjab	11000		Tropical Dry			1
Rajasthan	72000		Tropical Dry			1
Sikkim	12000				Mountain Climate	1
Tamil Nadu	116000	Tropical Wet	Tropical Dry			2
Telangana	34000	Tropical Wet	Tropical Dry			2
Tripura	1000			Subtropical Humid		1
Uttar Pradesh	58000		Tropical Dry	Subtropical Humid		2
Uttarakhand	50000			Subtropical Humid	Mountain Climate	2
West Bengal	87000	Tropical Wet		Subtropical Humid	Mountain Climate	3

States	No of Hotels	Domestic Tourist Visits(2022) in Lakhs	Foreign Tourist Visits(2022) in Lakhs	Total Visitors in Lakhs	Total No of Visitors in thousands	% of visitors	% of Hotels
Andhra Pradesh	34000	1927.67	1.658	1929.328	1929328	11.44%	2.03%
Arunachal Pradesh	5000	2.224	0.011	2.235	223.5	0.01%	0.30%
Assam	25000	83.82	0.09	83.91	8391	0.50%	1.49%
Bihar	4000	253.304	0.868	254.172	25417.2	1.51%	0.24%
Chattisgarh	25000	236.363	0.002	236.365	23636.5	1.40%	1.49%
Goa	44000	70.12	1.748	71.868	7186.8	0.43%	2.63%
Gujarat	107000	1358.113	17.772	1375.885	137588.5	8.16%	6.39%
Haryana	48000	21.085	0.024	21.109	2110.9	0.13%	2.87%
Himachal Pradesh	83000	150.709	0.293	151.002	15100.2	0.90%	4.96%
Jharkhand	4000	382.844	1.923	384.767	38476.7	2.28%	0.24%
Karnataka	40000	1824.132	1.285	1825.417	182541.7	10.82%	2.39%
Kerala	672000	188.674	3.455	192.129	19212.9	1.14%	40.12%
Madhya Pradesh	14000	358.488	2.045	360.533	36053.3	2.14%	0.84%
Maharashtra	102000	1112.976	15.116	1128.092	112809.2	6.69%	6.09%
Manipur	3000	1.395	0.039	1.434	143.4	0.01%	0.18%
Meghalaya	2000	9.371	0.078	9.449	944.9	0.06%	0.12%
Mizoram	1000	2.184	0.026	2.21	221	0.01%	0.06%
Nagaland	1000	0.974	0.029	1.003	100.3	0.01%	0.06%
Odisha	20000	78.679	0.221	78.9	7890	0.47%	1.19%
Punjab	11000	260.894	3.295	264.189	26418.9	1.57%	0.66%
Rajasthan	72000	1083.282	3.967	1087.249	108724.9	6.45%	4.30%
Sikkim	12000	16.256	0.686	16.942	1694.2	0.10%	0.72%
Tamil Nadu	116000	2185.848	4.071	2189.919	218991.9	12.98%	6.93%
Telangana	34000	607.484	0.684	608.168	60816.8	3.61%	2.03%
Tripura	1000	2.356	0.085	2.441	244.1	0.01%	0.06%
Uttar Pradesh	58000	3179.136	6.49	3185.626	318562.6	18.89%	3.46%
Uttarakhand	50000	546.426	0.616	547.042	54704.2	3.24%	2.99%
West Bengal	87000	845.422	10.37	855.792	85579.2	5.07%	5.19%
Grand Total	1675000	16790.229	76.947	16867.176	1686717.6	100.00%	100.00%



The additional data is taken from
<https://tourism.gov.in/sites/default/files/2023-09/Figures%202022.pdf>

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

Himachal Pradesh is the best state to set up a hotel because due to its diverse climatic conditions and many hills such as Shimla, Manali, Dharamshala, and Dalhousie which offer pleasant weather, stunning views, and a tranquil environment, making them ideal retreats for tourists seeking relaxation and rejuvenation and many spiritual pilgrims and Places like McLeod Ganj (home to the Dalai Lama), and Baijnath Temple are revered destinations for religious and spiritual experiences. It is also in the top 6th place in hotels besides being the smallest state in the area. So, it is the best choice.

But when we come to stats **Uttar Pradesh** is also one of the choices. The percentage of tourists visiting Uttar Pradesh is 18% of all Indian states there are only 58000 hotels located in that vast state and a lot of pilgrims are also there which will increase a lot of tourism in the future.

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

States	Onset Date	Retreat Date	No of Monsoon Days
Andhra Pradesh	05-Jun	15-Oct	132
Arunachal Pradesh	01-Jun	17-Oct	138
Assam	01-Jun	17-Oct	138
Bihar	15-Jun	05-Oct	112
Chattisgarh	15-Jun	10-Oct	117
Goa	05-Jun	10-Oct	127
Gujarat	15-Jun	20-Sep	97
Haryana	01-Jul	20-Sep	81
Himachal Pradesh	20-Jun	25-Sep	97
Jammu & Kashmir	01-Jul	20-Sep	81
Jharkhand	15-Jun	05-Oct	112
Karnataka	05-Jun	15-Oct	132
Kerala	01-Jun	15-Oct	136
Ladakh	25-Jun	25-Sep	92
Madhya Pradesh	15-Jun	01-Oct	108
Maharashtra	10-Jun	05-Oct	117
Manipur	01-Jun	18-Oct	139
Meghalaya	01-Jun	18-Oct	139
Mizoram	01-Jun	18-Oct	139
Nagaland	01-Jun	18-Oct	139
Odisha	15-Jun	10-Oct	117
Punjab	01-Jul	20-Sep	81
Rajasthan	01-Jul	17-Sep	78
Sikkim	05-Jun	15-Oct	132
Tamil Nadu	05-Jun	15-Oct	132
Telangana	10-Jun	15-Oct	127
Tripura	01-Jun	17-Oct	138
Uttar Pradesh	20-Jun	01-Oct	103
Uttarakhand	20-Jun	17-Sep	89
West Bengal	10-Jun	10-Oct	122
Average Days Monsoon Lasts in India			116.4

116 Days (Approx) is the time the monsoon lasts in India. The data has been taken from the Indian Metrological Department Website.

https://mausam.imd.gov.in/imd_latest/contents/monsoon_withdrawal.php

