1. What is the total population of India according to the dataset?

The total population of India as per 2011 Census is 1210854977.

2. How many states and union territories are present in the dataset?

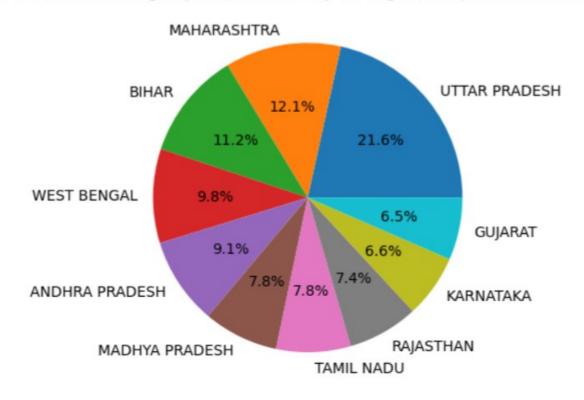
As per 2011 Census, a total of 35 States and Union Territories are present.

They are: 'UTTAR PRADESH', 'MADHYA PRADESH', 'BIHAR', 'MAHARASHTRA', 'RAJASTHAN', 'TAMIL NADU', 'KARNATAKA', 'ORISSA', 'ASSAM', 'GUJARAT', 'JHARKHAND', 'ANDHRA PRADESH', 'JAMMU AND KASHMIR', 'HARYANA', 'PUNJAB', 'WEST BENGAL', 'CHHATTISGARH', 'ARUNACHAL PRADESH', 'KERALA', 'UTTARAKHAND', 'HIMACHAL PRADESH', 'NAGALAND', 'MANIPUR', 'NCT OF DELHI', 'MIZORAM', 'MEGHALAYA', 'TRIPURA', 'SIKKIM', 'PONDICHERRY', 'ANDAMAN AND NICOBAR ISLANDS', 'GOA', 'DAMAN AND DIU', 'LAKSHADWEEP', 'CHANDIGARH', 'DADRA AND NAGAR HAVELI'.

## 3. What is the Total population across all states/UTs?

The State/UT with highest Population is UTTAR PRADESH, with population of 199812341 and state/UT with lowest population is LAKSHADWEEP, with population of 64473.

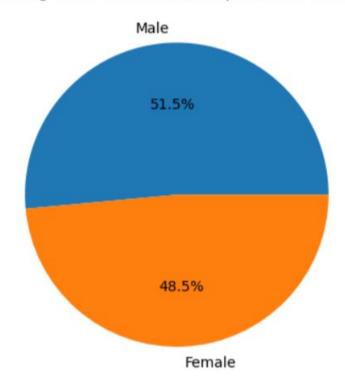
Pie Chart showing Popualtion % of Top 10 Highest Population State/UT



4. Find the total number of male and female populations separately.

The Total Male Population in India as per 2011 Census is 623270258 and Female Population is 587584719.

Pie chart depicting Male and Female Population Percentage in India

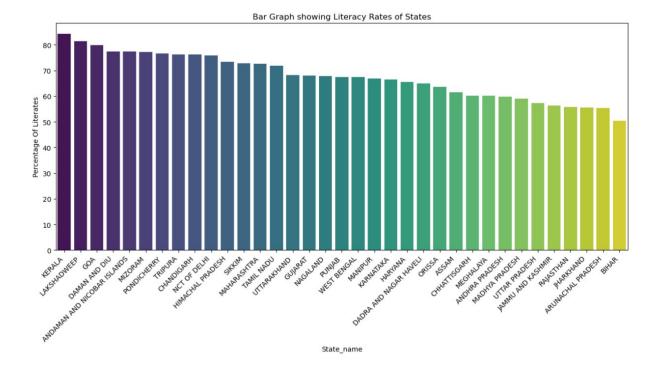


5.Identify the state/UT with the highest and lowest population.

The State/UT with highest Population is UTTAR PRADESH, with population of 199812341 and state/UT with lowest population is LAKSHADWEEP, with population of 64473.

6. Which state has the highest and lowest percentage of literates in India?

State/UT with highest percenatge of Literates is KERALA and State/UT with lowest percenatge of Literates is BIHAR.



7. Count the number of districts present in the dataset.

The number of distrcits present as per 2011 Census is 640.

8. Identify the top 5 states with the highest literacy rate.

The top 5 State/UT with the highest literacy rate are 'KERALA', 'LAKSHADWEEP', 'GOA', 'DAMAN AND DIU', 'ANDAMAN AND NICOBAR ISLANDS'.

9. Which state has the highest and lowest female population percentage?

The state/UT with the highest female population percentage is KERALA and state/UT with the lowest female population percentage is DAMAN AND DIU.

10. Find the states where the Age Group 0-29 population is lower than 50% of the total population.

The states where the Age Group 0-29 population is lower than 50% of the total population are 'KERALA', 'GOA'.

11. Compute the total literacy rate for each state and sort them in descending order.

	State_name	Literate	Population	Percentage Of Literates
16	KERALA	28135824	33406061	84.22
17	LAKSHADWEEP	52553	64473	81.51
9	GOA	1165487	1458545	79.91
8	DAMAN AND DIU	188406	243247	77.45
0	ANDAMAN AND NICOBAR ISLANDS	294281	380581	77.32
22	MIZORAM	848175	1097208	77.30
26	PONDICHERRY	957309	1247953	76.71
31	TRIPURA	2804783	3673917	76.34
5	CHANDIGARH	805438	1055450	76.31
24	NCT OF DELHI	12737767	16787941	75.87
12	HIMACHAL PRADESH	5039736	6864602	73.42
29	SIKKIM	444952	610577	72.87
19	MAHARASHTRA	81554290	112374333	72.57
30	TAMIL NADU	51837507	72147030	71.85
33	UTTARAKHAND	6880953	10086292	68.22
10	GUJARAT	41093358	60439692	67.99
23	NAGALAND	1342434	1978502	67.85
27	PUNJAB	18707137	27743338	67.43
34	WEST BENGAL	61538281	91276115	67.42
20	MANIPUR	1908476	2855794	66.83
15	KARNATAKA	40647322	61095297	66.53
11	HARYANA	16598988	25351462	65.48
7	DADRA AND NAGAR HAVELI	223230	343709	64.95
25	ORISSA	26742595	41974218	63.71
3	ASSAM	19177977	31205576	61.46
6	CHHATTISGARH	15379922	25545198	60.21
21	MEGHALAYA	1785005	2966889	60.16
1	ANDHRA PRADESH	50556760	84580777	59.77
18	MADHYA PRADESH	42851169	72626809	59.00
32	UTTAR PRADESH	114397555	199812341	57.25
13	JAMMU AND KASHMIR	7067233	12541302	56.35
28	RAJASTHAN	38275282	68548437	55.84
14	JHARKHAND	18328069	32988134	55.56
2	ARUNACHAL PRADESH	766005	1383727	55.36
4	BIHAR	52504553	104099452	50.44

12. Identify the state with the highest percentage of Buddhists and Jains.

The state with the highest percentage of Buddhists and Jains population are: SIKKIM(27.39%) and MAHARASHTRA(1.25%) respectively.

13. Find the top 10 districts with the highest percentage of workers.

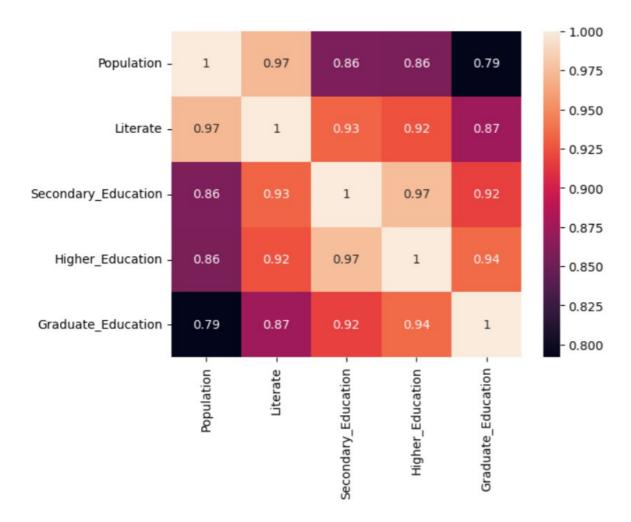
	State_name	District_name	Percentage of Workers
33	HIMACHAL PRADESH	Kinnaur	66.90
270	NAGALAND	Peren	64.47
25	HIMACHAL PRADESH	Kullu	61.45
24	HIMACHAL PRADESH	Lahul AND Spiti	61.13
267	NAGALAND	Longleng	60.55
260	NAGALAND	Mon	59.00
26	HIMACHAL PRADESH	Mandi	57.28
401	CHHATTISGARH	Jashpur	57.22
244	ARUNACHAL PRADESH	Tawang	57.15
22	HIMACHAL PRADESH	Chamba	56.65

14. Identify states where more than 60% of the population is below 30 years old.

The states where more than 60% of the population is below 30 years old are:

'MADHYA PRADESH', 'ASSAM', 'JAMMU AND KASHMIR', 'MIZORAM', 'JHARKHAND', 'RAJASTHAN', 'DAMAN AND DIU', 'UTTAR PRADESH', 'BIHAR', 'NAGALAND', 'ARUNACHAL PRADESH', 'DADRA AND NAGAR HAVELI', 'MEGHALAYA'.

15. Perform a correlation analysis between literacy rate and education levels (Secondary, Higher, and Graduate Education).



Key Insights from the Heatmap:

Correlation Between Literacy Rate and Education Levels:

Literate vs Secondary\_Education  $\rightarrow$  0.93  $\rightarrow$  Strong positive correlation. More literacy generally leads to more secondary education.

Literate vs Higher\_Education  $\rightarrow$  0.92  $\rightarrow$  Slightly weaker than secondary education but still a strong correlation.

Literate vs Graduate\_Education  $\rightarrow$  0.87  $\rightarrow$  Moderate correlation, suggesting that while literacy contributes to graduate education, other factors may also play a role.

## Interpretation:

Literacy strongly influences access to Secondary and Higher Education. Graduate Education shows a slightly weaker correlation, implying that other socio-economic factors might come into play. Secondary Education (0.93) has the highest correlation with literacy, meaning it benefits the most from literacy improvements.

## Conclusion:

Improving literacy rates will most directly increase Secondary and Higher Education enrollment. Graduate education is still correlated with literacy but is more dependent on other factors like economic conditions, affordability, and personal choices.

16. Find the relationship between literacy rate and total population.

Literate vs Population  $(0.97) \rightarrow As$  population increases, literacy also increases.

17. How does the workforce participation rate vary between male and female populations across states?

State with highest WFPR: HIMACHAL PRADESH

State with highest male WFPR: DAMAN AND DIU

State with highest female WFPR: HIMACHAL PRADESH

18. Analyse Religion Distribution across state and Calculate each Religion percentage with Total Population.

Hindus Population: 79.8%

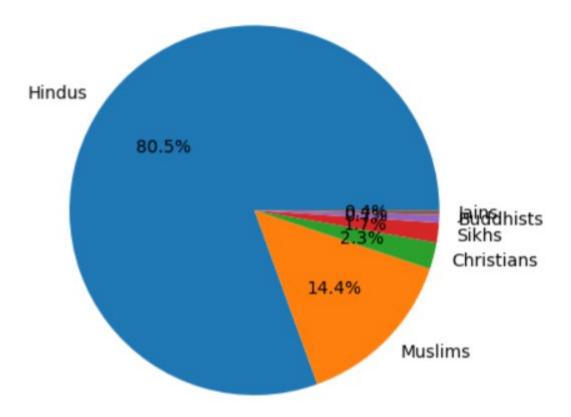
Muslim Population: 14.23%

Sikhs Population: 0.0172%

Christians Population: 0.023%

Buddhists Populations: 0.00697%

Jains Populations: 0.00368%



19. Identify the top states with the highest percentage of Age Group 50+ population.

The top states with the highest percentage of Age Group 50+ population are: 'KERALA', 'GOA', 'TAMIL NADU', 'HIMACHAL PRADESH', 'PONDICHERRY', 'PUNJAB', 'MAHARASHTRA', 'ANDHRA PRADESH', 'LAKSHADWEEP', 'ORISSA'.

20. Find the States with highest Agricultural Workers.

The State with highest Agricultural Workers is UTTAR PRADESH.