Crime Against Women : An In-Depth Data Analysis
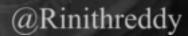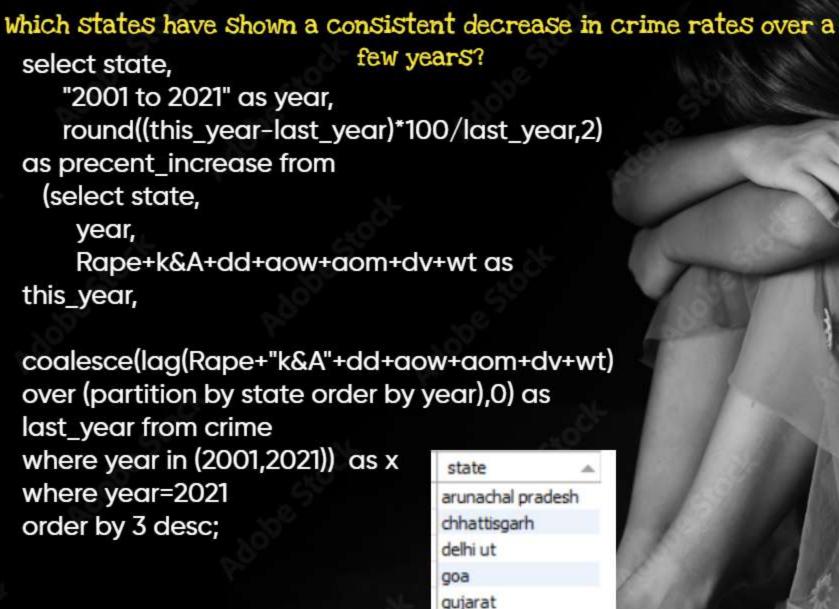
Key Insights from the Crimes Against Women in India (2001-2021) Dataset

Increasing Crime Rate: A noticeable rise in crime has occurred over the years, with the 'Seven Sisters' states witnessing particularly sharp increases.

Most Dangerous States: Despite having large populations, Uttar Pradesh (UP) and Andhra Pradesh (AP) are among the most dangerous states for women. Interestingly, the crime growth rate in these states has remained relatively low, only increasing by 1% over time

Decrease in Crime (2015-2020): From 2015 to 2020, there was a general decline in crime rates across states. However, the post-COVID year of 2021 marked a steep rise in crimes again.

Highest Recorded Crimes: The year 2003 saw the highest number of recorded crimes against women across India.

Rape to Domestic Violence Ratio: Across the dataset, domestic violence consistently outnumbers rape cases, but the gap has narrowed in recent years, suggesting an increase in reported cases of rape.

Top Crime Types: Across all states, domestic violence remains the most prevalent crime, followed closely by assault against women.

@Rinithreddy

What is the growth rate of crimes across the years for each state?

```sql
SELECT state, year,
    coalesce(round((present_year - previous_year) /
previous_year,2)*100,0) AS growth_rate
FROM (
    SELECT state, year,
        Rape + `K&A` + dd + aow + aom + dv + wt AS
present_year,
        COALESCE(LAG(Rape + `K&A` + dd + aow + aom +
dv + wt) OVER (PARTITION BY state ORDER BY year), 0)
AS previous_year
    FROM crime
) AS x;
```

★Continues for each
    state from
    2001 to 2021

state	year	growth_rate
andhra pradesh	2001	0.00
andhra pradesh	2002	11.00
andhra pradesh	2003	12.00
andhra pradesh	2004	1.00
andhra pradesh	2005	1.00
andhra pradesh	2006	11.00
andhra pradesh	2007	17.00
andhra pradesh	2008	-2.00
andhra pradesh	2009	7.00
andhra pradesh	2010	7.00
andhra pradesh	2011	-14.00
andhra pradesh	2012	21.00
andhra pradesh	2013	21.00
andhra pradesh	2014	-54.00

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How has the proportion of rape to domestic violence changed over the years?

```sql
  SELECT year,
  coalesce(round((rape - rape_previous) /
rape_previous*100,2),0) AS rape_growth,
  coalesce(round((dv - dv_previous)/ dv_previous,2)*100,0)
AS dv_growth
FROM (
  SELECT
    year,SUM(rape) AS rape,
    COALESCE(LAG(SUM(rape)) OVER (), 0) AS
rape_previous,
    SUM(dv) AS dv,
    COALESCE(LAG(SUM(dv)) OVER (), 0) AS dv_previous
  FROM crime
  GROUP BY year
) AS x;
```

★Output
Continues for each
year from
2001 to 2021

year	rape_growth	dv_growth
2001	0.00	0.00
2002	1.76	0.00
2003	-3.84	1.00
2004	15.14	15.00
2005	0.11	0.00
2006	5.78	8.00
2007	7.55	21.00
2008	4.28	8.00
2009	-0.35	10.00
2010	3.52	5.00

@Rinithreddy

Which states have shown a consistent decrease in crime rates over a few years?

```sql
select state,
    "2001 to 2021" as year,
    round((this_year-last_year)*100/last_year,2)
as precent_increase from
  (select state,
    year,
    Rape+k&A+dd+aow+aom+dv+wt as
this_year,

coalesce(lag(Rape+"k&A"+dd+aow+aom+dv+wt)
over (partition by state order by year),0) as
last_year from crime
where year in (2001,2021))  as x
where year=2021
order by 3 desc;
```

state ▲
arunachal pradesh
chhattisgarh
delhi ut
goa
gujarat

Which year saw the highest crime rate for each state?

```sql
SELECT state, year, crimes
FROM (
    SELECT
        state, year,
        Rape + `K&A` + dd + aow + aom + dv + wt AS crimes,
        DENSE_RANK() OVER (PARTITION BY state ORDER BY
Rape + `K&A` + dd + aow + aom + dv + wt DESC) AS ranking
    FROM crime
    ORDER BY state, year
) AS x
WHERE ranking = 1;
```

year	state
2001	uttar pradesh
2002	uttar pradesh
2003	andhra pradesh
2004	andhra pradesh
2005	andhra pradesh
2006	andhra pradesh
2007	andhra pradesh
2008	uttar pradesh
2009	andhra pradesh
2010	west bengal
2011	west bengal
2012	west bengal
2013	uttar pradesh
2014	uttar pradesh
2015	uttar pradesh
2016	uttar pradesh
2017	uttar pradesh
2018	uttar pradesh
2019	uttar pradesh
2020	tripura

Key Insights from the Crimes Against Women in India (2001-2021) Dataset

I have not included all the analyses in this document. For a more comprehensive exploration of the findings, please check my GitHub for additional insights and analyses.