**SQL Project** [**Click Here for Csv Files Link**](https://github.com/Sumit4085/Data-Science/tree/4e586322fdb278e0b063a55733c173abaf5ffb72/Sql%20project%20Files)

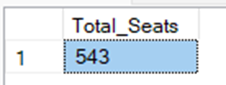
**INDIA GENERAL ELECTIONS RESULT ANALYSIS 2024**

**Total Seats**

    SELECT

    DISTINCT COUNT (Parliament\_Constituency) AS Total\_Seats

    FROM constituencywise\_results



**What is the total number of seats available for elections in each state**

SELECT

s.State AS State\_Name,

COUNT(cr.Constituency\_ID) AS Total\_Seats\_Available

FROM

constituencywise\_results cr

JOIN

statewise\_results sr ON cr.Parliament\_Constituency = sr.Parliament\_Constituency

JOIN

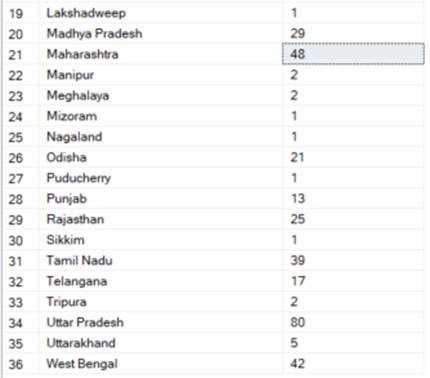
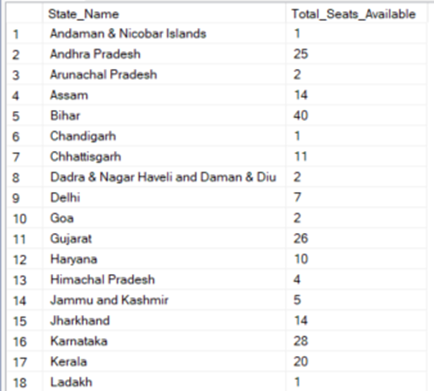
states s ON sr.State\_ID = s.State\_ID

GROUP BY

s.State

ORDER BY

s.State;

****

**Total Seats Won by NDA Allianz**

SELECT

SUM(CASE

         WHEN party IN (

             'Bharatiya Janata Party - BJP',

             'Telugu Desam - TDP',

                        'Janata Dal  (United) - JD(U)',

             'Shiv Sena - SHS',

             'AJSU Party - AJSUP',

             'Apna Dal (Soneylal) - ADAL',

             'Asom Gana Parishad - AGP',

             'Hindustani Awam Morcha (Secular) - HAMS',

             'Janasena Party - JnP',

                        'Janata Dal  (Secular) - JD(S)',

             'Lok Janshakti Party(Ram Vilas) - LJPRV',

             'Nationalist Congress Party - NCP',

             'Rashtriya Lok Dal - RLD',

             'Sikkim Krantikari Morcha - SKM'

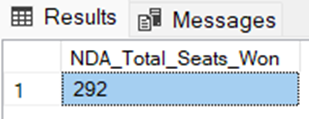
         ) THEN [Won]

         ELSE 0

     END) AS NDA\_Total\_Seats\_Won

FROM

partywise\_results



**Seats Won by NDA Allianz Parties**

SELECT

party as Party\_Name,

won as Seats\_Won

FROM

partywise\_results

WHERE

party IN (

     'Bharatiya Janata Party - BJP',

     'Telugu Desam - TDP',

          'Janata Dal  (United) - JD(U)',

     'Shiv Sena - SHS',

     'AJSU Party - AJSUP',

     'Apna Dal (Soneylal) - ADAL',

     'Asom Gana Parishad - AGP',

     'Hindustani Awam Morcha (Secular) - HAMS',

     'Janasena Party - JnP',

          'Janata Dal  (Secular) - JD(S)',

     'Lok Janshakti Party(Ram Vilas) - LJPRV',

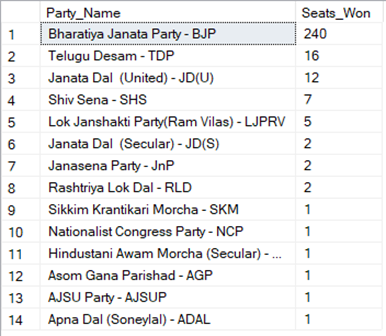
     'Nationalist Congress Party - NCP',

     'Rashtriya Lok Dal - RLD',

     'Sikkim Krantikari Morcha - SKM'

)

ORDER BY Seats\_Won DESC



**Total Seats Won by I.N.D.I.A. Allianz**

SELECT

SUM(CASE

         WHEN party IN (

             'Indian National Congress - INC',

             'Aam Aadmi Party - AAAP',

             'All India Trinamool Congress - AITC',

             'Bharat Adivasi Party - BHRTADVSIP',

             'Communist Party of India  (Marxist) - CPI(M)',

             'Communist Party of India  (Marxist-Leninist)  (Liberation) - CPI(ML)(L)',

             'Communist Party of India - CPI',

             'Dravida Munnetra Kazhagam - DMK',

             'Indian Union Muslim League - IUML',

             'Nat`Jammu & Kashmir National Conference - JKN',

             'Jharkhand Mukti Morcha - JMM',

             'Jammu & Kashmir National Conference - JKN',

             'Kerala Congress - KEC',

             'Marumalarchi Dravida Munnetra Kazhagam - MDMK',

             'Nationalist Congress Party Sharadchandra Pawar - NCPSP',

             'Rashtriya Janata Dal - RJD',

             'Rashtriya Loktantrik Party - RLTP',

             'Revolutionary Socialist Party - RSP',

             'Samajwadi Party - SP',

             'Shiv Sena (Uddhav Balasaheb Thackrey) - SHSUBT',

             'Viduthalai Chiruthaigal Katchi - VCK'

         ) THEN [Won]

         ELSE 0

     END) AS INDIA\_Total\_Seats\_Won

FROM

partywise\_results

**Seats Won by I.N.D.I.A. Allianz Parties**

SELECT

party as Party\_Name,

won as Seats\_Won

FROM

partywise\_results

WHERE

party IN (

     'Indian National Congress - INC',

             'Aam Aadmi Party - AAAP',

             'All India Trinamool Congress - AITC',

             'Bharat Adivasi Party - BHRTADVSIP',

             'Communist Party of India  (Marxist) - CPI(M)',

             'Communist Party of India  (Marxist-Leninist)  (Liberation) - CPI(ML)(L)',

             'Communist Party of India - CPI',

             'Dravida Munnetra Kazhagam - DMK',

             'Indian Union Muslim League - IUML',

             'Nat`Jammu & Kashmir National Conference - JKN',

             'Jharkhand Mukti Morcha - JMM',

             'Jammu & Kashmir National Conference - JKN',

             'Kerala Congress - KEC',

             'Marumalarchi Dravida Munnetra Kazhagam - MDMK',

             'Nationalist Congress Party Sharadchandra Pawar - NCPSP',

             'Rashtriya Janata Dal - RJD',

             'Rashtriya Loktantrik Party - RLTP',

             'Revolutionary Socialist Party - RSP',

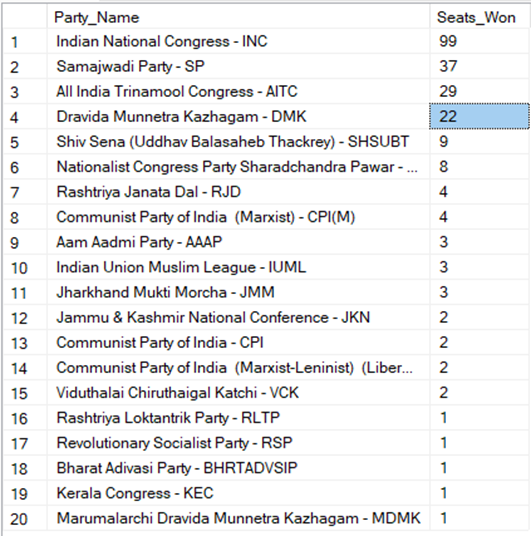
             'Samajwadi Party - SP',

             'Shiv Sena (Uddhav Balasaheb Thackrey) - SHSUBT',

             'Viduthalai Chiruthaigal Katchi - VCK'

)

ORDER BY Seats\_Won DESC



**Add new column field in table partywise\_results to get the Party Allianz as NDA, I.N.D.I.A and OTHER**

ALTER TABLE partywise\_results

ADD party\_alliance VARCHAR(50);

**I.N.D.I.A Allianz**

UPDATE partywise\_results

SET party\_alliance = 'I.N.D.I.A'

WHERE party IN (

'Indian National Congress - INC',

'Aam Aadmi Party - AAAP',

'All India Trinamool Congress - AITC',

'Bharat Adivasi Party - BHRTADVSIP',

'Communist Party of India  (Marxist) - CPI(M)',

'Communist Party of India  (Marxist-Leninist)  (Liberation) - CPI(ML)(L)',

'Communist Party of India - CPI',

'Dravida Munnetra Kazhagam - DMK',

'Indian Union Muslim League - IUML',

'Jammu & Kashmir National Conference - JKN',

'Jharkhand Mukti Morcha - JMM',

'Kerala Congress - KEC',

'Marumalarchi Dravida Munnetra Kazhagam - MDMK',

'Nationalist Congress Party Sharadchandra Pawar - NCPSP',

'Rashtriya Janata Dal - RJD',

'Rashtriya Loktantrik Party - RLTP',

'Revolutionary Socialist Party - RSP',

'Samajwadi Party - SP',

'Shiv Sena (Uddhav Balasaheb Thackrey) - SHSUBT',

'Viduthalai Chiruthaigal Katchi - VCK'

);

**NDA Allianz**

UPDATE partywise\_results

SET party\_alliance = 'NDA'

WHERE party IN (

'Bharatiya Janata Party - BJP',

'Telugu Desam - TDP',

'Janata Dal  (United) - JD(U)',

'Shiv Sena - SHS',

'AJSU Party - AJSUP',

'Apna Dal (Soneylal) - ADAL',

'Asom Gana Parishad - AGP',

'Hindustani Awam Morcha (Secular) - HAMS',

'Janasena Party - JnP',

'Janata Dal  (Secular) - JD(S)',

'Lok Janshakti Party(Ram Vilas) - LJPRV',

'Nationalist Congress Party - NCP',

'Rashtriya Lok Dal - RLD',

'Sikkim Krantikari Morcha - SKM'

);

**OTHER**

UPDATE partywise\_results

SET party\_alliance = 'OTHER'

WHERE party\_alliance IS NULL;

**Which party alliance (NDA, I.N.D.I.A, or OTHER) won the most seats across all states?**

SELECT

p.party\_alliance,

COUNT(cr.Constituency\_ID) AS Seats\_Won

FROM

constituencywise\_results cr

JOIN

partywise\_results p ON cr.Party\_ID = p.Party\_ID

WHERE

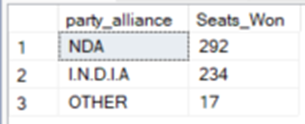
p.party\_alliance IN ('NDA', 'I.N.D.I.A', 'OTHER')

GROUP BY

p.party\_alliance

ORDER BY

Seats\_Won DESC;



**Winning candidate's name, their party name, total votes, and the margin of victory for a specific state and constituency?**

SELECT cr.Winning\_Candidate, p.Party, p.party\_alliance, cr.Total\_Votes, cr.Margin, cr.Constituency\_Name, s.State

FROM constituencywise\_results cr

JOIN partywise\_results p ON cr.Party\_ID = p.Party\_ID

JOIN statewise\_results sr ON cr.Parliament\_Constituency = sr.Parliament\_Constituency

JOIN states s ON sr.State\_ID = s.State\_ID

WHERE s.State = 'Uttar Pradesh' AND cr.Constituency\_Name = 'AMETHI';



**What is the distribution of EVM votes versus postal votes for candidates in a specific constituency?**

SELECT

cd.Candidate,

cd.Party,

cd.EVM\_Votes,

cd.Postal\_Votes,

cd.Total\_Votes,

cr.Constituency\_Name

FROM

constituencywise\_details cd

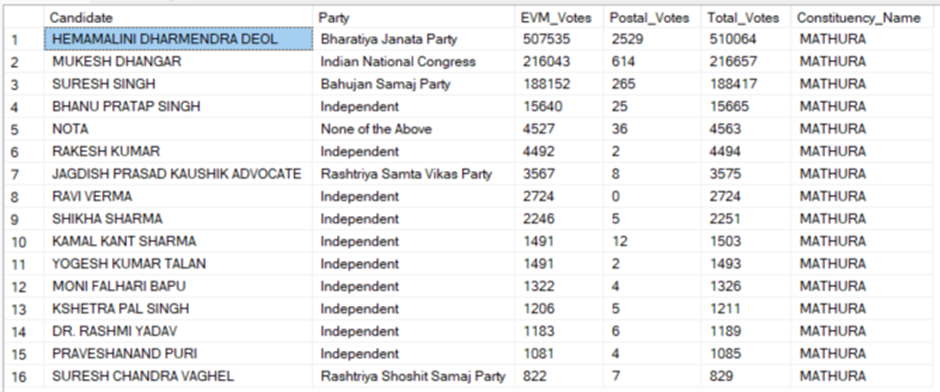
JOIN

constituencywise\_results cr ON cd.Constituency\_ID = cr.Constituency\_ID

WHERE

cr.Constituency\_Name = 'MATHURA'

ORDER BY cd.Total\_Votes DESC;

****

**Which parties won the most seats in s State, and how many seats did each party win?**

SELECT

p.Party,

COUNT(cr.Constituency\_ID) AS Seats\_Won

FROM

constituencywise\_results cr

JOIN

partywise\_results p ON cr.Party\_ID = p.Party\_ID

JOIN

statewise\_results sr ON cr.Parliament\_Constituency = sr.Parliament\_Constituency

JOIN states s ON sr.State\_ID = s.State\_ID

WHERE

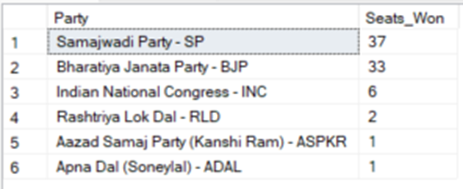
s.state = 'Andhra Pradesh'

GROUP BY

p.Party

ORDER BY

Seats\_Won DESC;

****

**What is the total number of seats won by each party alliance (NDA, I.N.D.I.A, and OTHER) in each state for the India Elections 2024**

SELECT

s.State AS State\_Name,

SUM(CASE WHEN p.party\_alliance = 'NDA' THEN 1 ELSE 0 END) AS NDA\_Seats\_Won,

SUM(CASE WHEN p.party\_alliance = 'I.N.D.I.A' THEN 1 ELSE 0 END) AS INDIA\_Seats\_Won,

    SUM(CASE WHEN p.party\_alliance = 'OTHER' THEN 1 ELSE 0 END) AS OTHER\_Seats\_Won

FROM

constituencywise\_results cr

JOIN

partywise\_results p ON cr.Party\_ID = p.Party\_ID

JOIN

statewise\_results sr ON cr.Parliament\_Constituency = sr.Parliament\_Constituency

JOIN

states s ON sr.State\_ID = s.State\_ID

WHERE

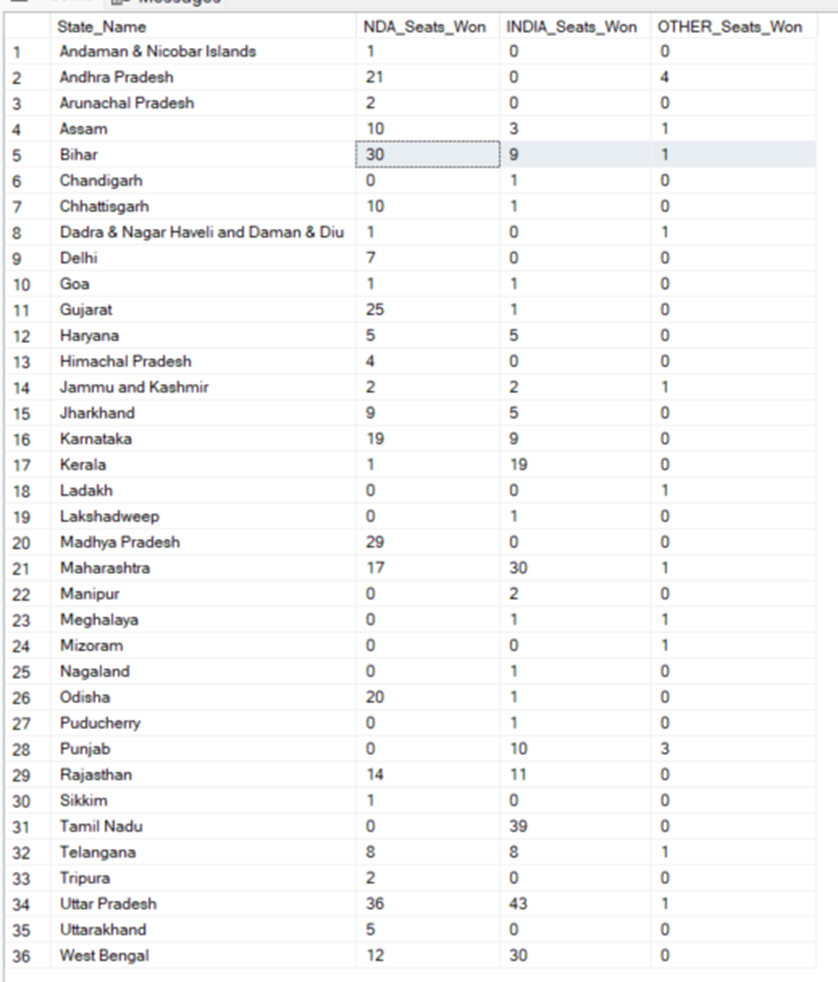
p.party\_alliance IN ('NDA', 'I.N.D.I.A',  'OTHER')  -- Filter for NDA and INDIA alliances

GROUP BY

s.State

ORDER BY

s.State;

****

**Which candidate received the highest number of EVM votes in each constituency (Top 10)?**

SELECT TOP 10

cr.Constituency\_Name,

cd.Constituency\_ID,

cd.Candidate,

cd.EVM\_Votes

FROM

constituencywise\_details cd

JOIN

constituencywise\_results cr ON cd.Constituency\_ID = cr.Constituency\_ID

WHERE

cd.EVM\_Votes = (

     SELECT MAX(cd1.EVM\_Votes)

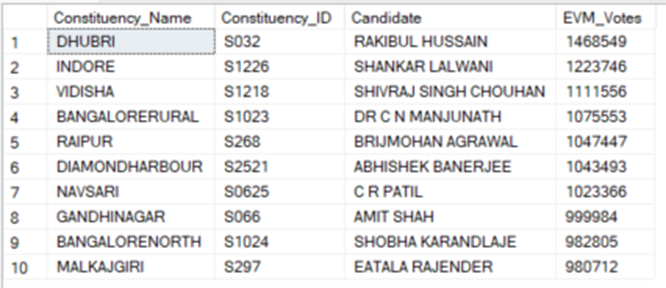
     FROM constituencywise\_details cd1

     WHERE cd1.Constituency\_ID = cd.Constituency\_ID

)

ORDER BY

cd.EVM\_Votes DESC;

****

**Which candidate won and which candidate was the runner-up in each constituency of State for the 2024 elections?**

WITH RankedCandidates AS (

SELECT

     cd.Constituency\_ID,

     cd.Candidate,

     cd.Party,

     cd.EVM\_Votes,

     cd.Postal\_Votes,

     cd.EVM\_Votes + cd.Postal\_Votes AS Total\_Votes,

     ROW\_NUMBER() OVER (PARTITION BY cd.Constituency\_ID ORDER BY cd.EVM\_Votes + cd.Postal\_Votes DESC) AS VoteRank

FROM

     constituencywise\_details cd

JOIN

     constituencywise\_results cr ON cd.Constituency\_ID = cr.Constituency\_ID

JOIN

     statewise\_results sr ON cr.Parliament\_Constituency = sr.Parliament\_Constituency

JOIN

     states s ON sr.State\_ID = s.State\_ID

WHERE

     s.State = 'Maharashtra'

)

SELECT

cr.Constituency\_Name,

MAX(CASE WHEN rc.VoteRank = 1 THEN rc.Candidate END) AS Winning\_Candidate,

MAX(CASE WHEN rc.VoteRank = 2 THEN rc.Candidate END) AS Runnerup\_Candidate

FROM

RankedCandidates rc

JOIN

constituencywise\_results cr ON rc.Constituency\_ID = cr.Constituency\_ID

GROUP BY

cr.Constituency\_Name

ORDER BY

cr.Constituency\_Name;

****

***Query Explaination:***

**1. Common Table Expression (CTE) RankedCandidates**

* **WITH RankedCandidates AS**: This section creates a Common Table Expression (CTE) named RankedCandidates, which is used to rank candidates based on their total votes within each constituency.
* **SELECT ... FROM constituencywise\_details cd**: This part of the CTE retrieves data from the constituencywise\_details table, including:
  + cd.Constituency\_ID: The ID of the constituency.
  + cd.Candidate: The name of the candidate.
  + cd.Party: The party of the candidate.
  + cd.EVM\_Votes: The number of EVM votes received by the candidate.
  + cd.Postal\_Votes: The number of postal votes received by the candidate.
  + cd.EVM\_Votes + cd.Postal\_Votes AS Total\_Votes: The total votes received by the candidate (sum of EVM and postal votes).
* **ROW\_NUMBER() OVER (PARTITION BY cd.Constituency\_ID ORDER BY cd.EVM\_Votes + cd.Postal\_Votes DESC) AS VoteRank**:
  + ROW\_NUMBER() is a window function that assigns a unique rank to each candidate within their respective constituency.
  + PARTITION BY cd.Constituency\_ID ensures that the ranking is done separately for each constituency.
  + ORDER BY cd.EVM\_Votes + cd.Postal\_Votes DESC orders candidates by their total votes in descending order, so the candidate with the most votes gets rank 1.
* **JOIN ... ON ...**: Joins are performed to combine information from related tables:
  + constituencywise\_results cr ON cd.Constituency\_ID = cr.Constituency\_ID
  + statewise\_results sr ON cr.Parliament\_Constituency = sr.Parliament\_Constituency
  + states s ON sr.State\_ID = s.State\_ID
* **WHERE s.State = 'Maharashtra'**: Filters the results to include only data related to the state of Maharashtra.

**2. Main Query**

* **SELECT ... FROM RankedCandidates rc**: The main query retrieves data from the RankedCandidates CTE to find the winning and runner-up candidates for each constituency.
* **MAX(CASE WHEN rc.VoteRank = 1 THEN rc.Candidate END) AS Winning\_Candidate**:
  + CASE WHEN rc.VoteRank = 1 THEN rc.Candidate END selects the candidate with the highest vote rank (rank 1) for each constituency.
  + MAX(...) ensures that only one candidate is selected for each constituency.
* **MAX(CASE WHEN rc.VoteRank = 2 THEN rc.Candidate END) AS Runnerup\_Candidate**:
  + CASE WHEN rc.VoteRank = 2 THEN rc.Candidate END selects the candidate with the second highest vote rank (rank 2) for each constituency.
  + MAX(...) ensures that only one candidate is selected for each constituency.
* **JOIN ... ON ...**: Joins the RankedCandidates CTE with the constituencywise\_results table to get the constituency names.
* **GROUP BY cr.Constituency\_Name**: Groups the results by constituency name to ensure that the winning and runner-up candidates are determined for each constituency.
* **ORDER BY cr.Constituency\_Name**: Orders the results alphabetically by constituency name for easier readability.

**For the state of Maharashtra, what are the total number of seats, total number of candidates, total number of parties, total votes (including EVM and postal), and the breakdown of EVM and postal votes?**

SELECT

COUNT(DISTINCT cr.Constituency\_ID) AS Total\_Seats,

COUNT(DISTINCT cd.Candidate) AS Total\_Candidates,

COUNT(DISTINCT p.Party) AS Total\_Parties,

SUM(cd.EVM\_Votes + cd.Postal\_Votes) AS Total\_Votes,

SUM(cd.EVM\_Votes) AS Total\_EVM\_Votes,

SUM(cd.Postal\_Votes) AS Total\_Postal\_Votes

FROM

constituencywise\_results cr

JOIN

constituencywise\_details cd ON cr.Constituency\_ID = cd.Constituency\_ID

JOIN

statewise\_results sr ON cr.Parliament\_Constituency = sr.Parliament\_Constituency

JOIN

states s ON sr.State\_ID = s.State\_ID

JOIN

partywise\_results p ON cr.Party\_ID = p.Party\_ID

WHERE

s.State = 'Maharashtra';

