1. List top 5 / bottom 5 constituencies of 2014 and 2019 in terms of voter turnout ratio?

```
SELECT
    constituency,
    (SUM(total_votes) / SUM(DISTINCT(total_electors))) * 100 AS turnout_ratio
FROM
    2014_analysis
GROUP BY
    constituency
ORDER BY
    turnout_ratio DESC
LIMIT 5;
```

```
SELECT
constituency,
(SUM(total_votes) / SUM(DISTINCT(total_electors))) * 100 AS turnout_ratio
FROM
2014_analysis
GROUP BY
constituency
ORDER BY
turnout_ratio ASC
LIMIT 5;
```

```
| constituency | turnout_ratio |
| Srinagar | 25.8618 |
| Anantnag | 28.8423 |
| Baramulla | 39.1338 |
| Kalyan | 42.8814 |
| Patna Sahib | 45.3314 |
```

```
SELECT
constituency,
(SUM(total_votes) / SUM(DISTINCT(total_electors))) * 100 AS turnout_ratio
FROM 2019_analysis
GROUP BY constituency
ORDER BY turnout_ratio DESC
LIMIT 5;
```

```
SELECT
constituency,
(SUM(total_votes) / SUM(DISTINCT(total_electors))) * 100 AS turnout_ratio
FROM 2019_analysis
GROUP BY constituency
ORDER BY turnout_ratio ASC
LIMIT 5;
```

+ constituency	turnout_ratio
Anantnag	8.9353
Srinagar	14.4308
Baramulla	34.5706
Hyderabad	44.8367
Kalyan	45.2930

2. List top 5 / bottom 5 states of 2014 and 2019 in terms of voter turnout ratio?

```
SELECT
state,
(SUM(total_votes) / SUM(DISTINCT(total_electors))) * 100 AS turnout_ratio
FROM
2014_analysis
GROUP BY
state
ORDER BY
turnout_ratio DESC
LIMIT 5;
```

```
SELECT
    state,
    (SUM(total_votes) / SUM(DISTINCT(total_electors))) * 100 AS turnout_ratio
FROM
    2014_analysis
GROUP BY
    state
ORDER BY
    turnout_ratio ASC
LIMIT 5;
```

state	turnout_ratio
Jammu & Kashmir	49.6561
Bihar	56.2465
Uttar Pradesh	58.4200
Maharashtra	60.2947
Madhya Pradesh	61.5939

```
SELECT
state,
(SUM(total_votes) / SUM(DISTINCT(total_electors))) * 100 AS turnout_ratio
FROM 2019_analysis
GROUP BY state
ORDER BY turnout_ratio DESC
LIMIT 5;
```

```
SELECT
state,
(SUM(total_votes) / SUM(DISTINCT(total_electors))) * 100 AS turnout_ratio
FROM 2019_analysis
GROUP BY state
ORDER BY turnout_ratio ASC
LIMIT 5;
```

state	turnout_ratio
Jammu & Kashmir	44.8420
Bihar	57.2996
Uttar Pradesh	59.1793
Nct Of Delhi	60.5753
Maharashtra	60.9564

3. Which constituencies have elected the same party for two consecutive elections, rank them by % of votes to that winning party in 2019?

```
1 WITH election_2014 AS (
          constituency,
          total_votes,
          total_votes * 1.0 / SUM(total_votes) OVER (PARTITION BY constituency) AS vote_percentage_2014
      FROM
          2014_analysis
11 election_2019 AS (
      SELECT
         constituency,
          state,
          party,
          total_votes,
          total_votes * 1.0 / SUM(total_votes) OVER (PARTITION BY constituency) AS vote_percentage_2019
      FROM
          2019_analysis
20 ),
21 winning_parties AS (
     SELECT
          e14.constituency,
          e14.state,
         e14.party AS party_2014,
          e14.vote_percentage_2014,
         e19.party AS party_2019,
          e19.vote_percentage_2019
     FROM
          election_2014 e14
          JOIN election_2019 e19 ON e14.constituency = e19.constituency AND e14.state = e19.state
      WHERE
          e14.party = e19.party
      constituency,
      party_2019 AS winning_party,
      ROUND(vote_percentage_2019 * 100, 2) AS vote_percentage_2019
      winning_parties
42 WHERE
      party_2014 = party_2019
44 ORDER BY
      vote_percentage_2019 DESC
46 LIMIT 5;
```

+		+	++;
constituency	state	winning_party	vote_percentage_2019
+		+	t+ _,
Surat	Gujarat	ВЈР	74.47
Navsari	Gujarat	ВЈР	74.37
Vadodara	Gujarat	ВЈР	72.30
Kangra	Himachal Pradesh	ВЈР	72.02
Bhilwara	Rajasthan	ВЈР	71.59
+			++

4. Which constituencies have voted for different parties in two elections (list top 10 based on difference (2019-2014) in winner vote percentage in two elections).

```
WITH election_2014 AS (
            constituency.
            state,
           total_votes,
total_votes * 1.0 / SUM(total_votes) OVER (PARTITION BY constituency) AS vote_percentage_2014
            2014_analysis
   election_2019 AS (
            constituency,
           party,
total_votes,
           total_votes * 1.0 / SUM(total_votes) OVER (PARTITION BY constituency) AS vote_percentage_2019
       FROM
            2019_analysis
   winning_parties_2014 AS (
       SELECT
           state,
party AS party_2014,
MAX(vote_percentage_2014) AS vote_percentage_2014
       FROM
            election_2014
       GROUP BY
           constituency,
            party
       HAVING MAX(vote percentage 2014) =
          SELECT MAX(vote_percentage_2014)
            FROM election_2014 e14
            WHERE e14.constituency = election_2014.constituency AND e14.state = election_2014.state
38 ),
39 winning_parties_2019 AS (
       SELECT
           constituency,
           state,
party AS party_2019,
            MAX(vote_percentage_2019) AS vote_percentage_2019
            election_2019
       GROUP BY
           constituency,
            state,
       HAVING MAX(vote_percentage_2019) = (
           SELECT MAX(vote_percentage_2019)
            FROM election_2019 e19
            WHERE e19.constituency = election_2019.constituency AND e19.state = election_2019.state
   different_parties AS (
       SELECT
          wp14.constituency.
           wp14.state,
            wp14.party_2014,
           wp14.vote_percentage_2014,
           wp19.party_2019,
           wp19.vote_percentage_2019,
            wp19.vote_percentage_2019 - wp14.vote_percentage_2014 AS vote_percentage_diff
       FROM
           winning_parties_2014 wp14
            JOIN winning_parties_2019 wp19 ON wp14.constituency = wp19.constituency AND wp14.state = wp19.state
       WHERE
            wp14.party_2014 	wp19.party_2019
       constituency,
       state,
       party_2014,
       ROUND(vote_percentage_diff * 100, 2) AS vote_percentage_diff
       different_parties
   ORDER BY
       vote_percentage_diff DESC
```

+		+	+	++
constituency	state	party_2014	party_2019	vote_percentage_diff
Alipurduars Autonomous District Kanniyakumari Puducherry Bhagalpur Sambhal Jhanjharpur Chikkballapur Ghazipur Supaul	West Bengal Assam Tamil Nadu Puducherry Bihar Uttar Pradesh Bihar Karnataka Uttar Pradesh	AITC INC BJP AINRC RJD BJP BJP INC BJP	BJP BJP INC INC JD(U) SP JD(U) BJP BSP JD(U)	24.78 22.49 22.19 21.70 21.56 21.52 21.16 20.15 20.09 19.48

5. Top 5 candidates based on margin difference with runners in 2014 and 2019.

```
CREATE VIEW 2014_margins AS
SELECT
    state,
constituency,
    candidate_name,
    party,
    total_votes,
total_votes - (
        SELECT total_votes
        FROM 2014_analysis AS b
        WHERE a.state = b.state AND a.constituency = b.constituency
        ORDER BY total_votes DESC
        LIMIT 1 OFFSET 1
    ) AS margin_difference
FROM
    2014_analysis AS a
WHERE
    (state, constituency, total_votes) IN (
        SELECT state, constituency, MAX(total_votes)
        FROM 2014_analysis
        GROUP BY state, constituency
```

```
SELECT
state,
constituency,
candidate_name,
party,
total_votes,
margin_difference
FROM
2014_margins
ORDER BY
margin_difference DESC
LIMIT 5;
```

+	+	+	+	+	++
state	constituency	candidate_name	party	total_votes	margin_difference
Gujarat Uttar Pradesh Gujarat Rajasthan Gujarat	Vadodara Ghaziabad Navsari Jaipur Surat	NARENDRA MODI VIJAY KUMAR SINGH C. R. PATIL RAMCHARAN BOHARA DARSHANA VIKRAM JARDOSH	BJP BJP BJP BJP BJP	845464 758482 820831 863358 718412	570128 567260 558116 539345 533190

```
CREATE VIEW 2019_margins AS
SELECT
    state,
constituency,
    candidate_name,
    total_votes,
total_votes - (
        SELECT total_votes
        FROM 2019_analysis AS b
        WHERE a.state = b.state AND a.constituency = b.constituency
        ORDER BY total_votes DESC
        LIMIT 1 OFFSET 1
    ) AS margin_difference
FROM
    2019_analysis AS a
WHERE
    (state, constituency, total_votes) IN (
        SELECT state, constituency, MAX(total_votes)
        FROM 2019_analysis
        GROUP BY state, constituency
```

```
SELECT
state,
constituency,
candidate_name,
party,
total_votes,
margin_difference
FROM
2019_margins
ORDER BY
margin_difference DESC
LIMIT 5;
```

state	constituency	candidate_name	party	total_votes	margin_difference
Gujarat	Navsari	C. R. Patil	BJP	972739	689668
Haryana	Karnal	Sanjay Bhatia	BJP	911594	656142
Haryana	Faridabad	KRISHAN PAL	BJP	913222	638239
Rajasthan	Bhilwara	SUBHASH CHANDRA BAHERIA	BJP	938160	612000
Gujarat	Vadodara	RANJANBEN BHATT	BJP	883719	589177

- 6. % Split of votes of parties between 2014 vs 2019 at national level
- 7. % Split of votes of parties between 2014 vs 2019 at state level.

8. List top 5 constituencies for two major national parties where they have gained vote share in 2019 as compared to 2014.

```
WITH election_2014 AS (
              constituency,
              party,
total_votes,
              total_votes * 1.0 / SUM(total_votes) OVER (PARTITION BY constituency) AS vote_percentage_2014
              2014_analysis
10 ),
11 election_2019 AS (
12 SELECT
13 constituence
             constituency,
              state,
              party,
15 party,
16 total_votes,
17 total_votes *
18 FROM
19 2019_analysis
20 ),
21 party_vote_share AS (
22 SELECT
23 e14.constituen
24 e14.state,
25 e14.party.
              total_votes * 1.0 / SUM(total_votes) OVER (PARTITION BY constituency) AS vote_percentage_2019
             e14.constituency,
             e14.party,
              e14.vote_percentage_2014,
              e19.vote_percentage_2019
              (e19.vote_percentage_2019 - e14.vote_percentage_2014) * 100 AS vote_percentage_gain
        FROM
              JOIN election_2019 e19 ON e14.constituency = e19.constituency AND e14.state = e19.state AND e14.party = e19.party
         WHERE
              e14.party IN ('BJP', 'INC')
33 e
34 ) SELECT
35 const
36 state
37 'BJP'
38 ROUND
39 FROM
         constituency,
         state,
'BJP' AS party,
         ROUND(vote_percentage_gain, 2) AS vote_percentage_gain
         party_vote_share
         party = 'BJP' AND vote_percentage_gain > 0
         vote_percentage_gain DESC
```

+	+	H	++
constituency	state	party	vote_percentage_gain
+	+	 	 +
Tripura West	Tripura	ВЈР	46.67
Purulia	West Bengal	ВЈР	42.14
Tripura East	Tripura	ВЈР	39.75
Ranaghat	West Bengal	ВЈР	35.51
Jhargram	West Bengal	ВЈР	34.82
+	+		

+			
constituency	state	party	vote_percentage_gain
Karur Tiruchirappalli Arani Thiruvallur Krishnagiri	Tamil Nadu Tamil Nadu Tamil Nadu Tamil Nadu Tamil Nadu	INC INC INC INC INC	60.15 54.06 51.48 50.98 49.00
T			T

9. List top 5 constituencies for two major national parties where they have lost vote share in 2019 as compared to 2014.

```
WITH election_2014 AS (
               constituency,
               party,
total_votes,
               total_votes * 1.0 / SUM(total_votes) OVER (PARTITION BY constituency) AS vote_percentage_2014
               2014_analysis
 10 ),
11 election_2019 AS (
          SELECT
              constituency,
               total_votes,
               total_votes * 1.0 / SUM(total_votes) OVER (PARTITION BY constituency) AS vote_percentage_2019
TOTAL_VOTES *

18 FROM

19 2019_analysis
20 ),
21 party_vote_share AS (
22 SELECT
23 e14.constituen
24 e14.state,
25 e14.party,
26 e14.vote_perce
27 e19.vote_perce
28 (e14.vote_perce
29 FROM
30 election_2014
31 JOIN election_
32 WHERE
33 e14.party IN (
34 )
35 SELECT
36 constituency,
37 state,
          FROM
              e14.constituency,
               e14.vote_percentage_2014,
               e19.vote_percentage_2019,
               (e14.vote_percentage_2014 - e19.vote_percentage_2019) * 100 AS vote_percentage_loss
              election_2014 e14
               JOIN election_2019 e19 0N e14.constituency = e19.constituency AND e14.state = e19.state AND e14.party = e19.party
               e14.party IN ('BJP', 'INC')
          state,
'BJP' AS party,
         ROUND(vote_percentage_loss, 2) AS vote_percentage_loss
          party_vote_share
          party = 'BJP' AND vote_percentage_loss > 0
     ORDER BY
         vote_percentage_loss DESC
```

+	.+	+	- +
constituency	state	party	vote_percentage_loss
Narsapuram Visakhapatnam Tirupati Sangli Daman & Diu	Andhra Pradesh Andhra Pradesh Andhra Pradesh Maharashtra Daman & Diu	ВЈР	48.56 45.98 43.53 15.66 10.85

```
WITH election_2014 AS (
                constituency,
                party,
               total_votes,
total_votes * 1.0 / SUM(total_votes) OVER (PARTITION BY constituency) AS vote_percentage_2014
                2014_analysis
 10 ),
11 election_2019 AS (
12 SELECT
               constituency,
                party,
total_votes,
total_votes * 1.0 / SUM(total_votes) OVER (PARTITION BY constituency) AS vote_percentage_2019
party,
total_votes,
total_votes,
total_votes *

FROM

2019_analysis
),
party_vote_share AS (
SELECT
a e14.constituen
e14.state,
e14.party,
e14.vote_perce
e19.vote_perce
(e14.vote_perce
FROM
a election_2014
JOIN election_
WHERE
a e14.party IN (
)
SELECT
constituency,
state,
               e14.constituency,
                e14.vote_percentage_2014,
                e19.vote_percentage_2019,
(e14.vote_percentage_2014 - e19.vote_percentage_2019) * 100 AS vote_percentage_loss
               election_2014 e14
                JOIN election_2019 e19 0N e14.constituency = e19.constituency AND e14.state = e19.state AND e14.party = e19.party
                e14.party IN ('BJP', 'INC')
          state,
'INC' AS party,
 39 F
40 FROM
          ROUND(vote_percentage_loss, 2) AS vote_percentage_loss
          party_vote_share
 42 WHERE
          party = 'INC' AND vote_percentage_loss > 0
     ORDER BY
          vote_percentage_loss DESC
```

+		+	++
constituency	state	party	vote_percentage_loss +
Ratnagiri - Sindhudurg Arunachal West Raiganj Outer Manipur Kishanganj	Maharashtra Arunachal Pradesh West Bengal Manipur Bihar	INC INC INC INC INC	31.25 23.80 21.95 20.68 19.83

10. Which constituency has voted the most for NOTA?

```
SELECT
   "2014" AS YEAR,
   state,
   constituency,
    total_votes
FROM (
   SELECT
       state,
        constituency,
        SUM(total_votes) AS total_votes
   FROM
       2014_analysis
   WHERE party = 'NOTA'
   GROUP BY
       state,
        constituency
   ORDER BY total_votes DESC
   LIMIT 1
) AS t1
UNION ALL
SELECT
   "2019" as YEAR,
   state,
   constituency,
   total_votes
FROM (
   SELECT
       state,
        constituency,
       SUM(total_votes) AS total_votes
   FROM
        2019_analysis
   WHERE party = 'NOTA'
   GROUP BY
       state,
        constituency
   ORDER BY total_votes DESC
   LIMIT 1
) AS t2;
```

11. Which constituencies have elected candidates whose party has less than 10% vote share at state level in 2019?

```
WITH party_votes AS (
       SELECT
           party,
           SUM(total_votes) AS total_party_votes
       FROM
          2019_analysis
       GROUP BY
          state, party
11 state_votes AS (
           state.
           SUM(total_votes) AS total_state_votes
       FROM
          2019_analysis
       GROUP BY
          state
20 party_vote_share AS (
      SELECT
           pv.state,
           pv.party,
           (pv.total_party_votes / sv.total_state_votes) * 100 AS vote_share_percentage
       FROM
          party_votes pv
       JOIN
           state_votes sv
           pv.state = sv.state
32 winning_candidates AS (
      SELECT
           t1.state,
           t1.constituency,
           t1.candidate_name,
           t1.party,
           t1.total_votes
      FROM
          2019_analysis t1
      LEFT JOIN
           2019_analysis t2
           t1.state = t2.state
           AND t1.constituency = t2.constituency
           AND t1.total_votes < t2.total_votes
       WHERE
          t2.state IS NULL
           AND t2.constituency IS NULL
       wc.state,
       wc.constituency,
       wc.candidate_name,
       wc.party,
       pvs.vote_share_percentage
57 FROM
       winning_candidates wc
       party_vote_share pvs
       wc.state = pvs.state
       AND wc.party = pvs.party
64 WHERE
       pvs.vote_share_percentage < 10</pre>
66 ORDER BY
       pvs.vote_share_percentage ASC;
```

+	 		+·	tt
state	constituency	candidate_name	party +	vote_share_percentage
Karnataka	Hassan	PRAJWAL REVANNA	JD(S)	9.6681
Punjab	Gurdaspur	SUNNY DEOL	BJP	9.6288
Punjab	Hoshiarpur	SOM PARKASH	BJP	9.6288
Jammu & Kashmir	Anantnag	HASNAIN MASOODI	JKN	7.8915
Jammu & Kashmir	Srinagar	Farooq Abdullah	JKN	7.8915
Jammu & Kashmir	Baramulla	MOHAMMAD AKBAR LONE	JKN	7.8915
Bihar	Hajipur (Sc)	PASHU PATI KUMAR PARAS	LJP	7.8590
Bihar	Samastipur (Sc)	Ramchandra Paswan	LJP	7.8590
Bihar	Nawada	Chandan Singh	LJP	7.8590
Bihar	Jamui (Sc)	CHIRAG KUMAR PASWAN	LJP	7.8590
Bihar	Khagaria	Choudhary Mehboob Ali Kaiser	LJP	7.8590
Bihar	Vaishali	Veena Devi (W/o Dinesh Prasad Singh)	LJP	7.8590
Assam	Dhubri	BADRUDDIN AJMAL	AIUDF	7.7954
Bihar	Kishanganj	Dr. Mohammad Jawed	INC	7.6968
Punjab	Sangrur	BHAGWANT MANN	AAAP	7.3792
Uttar Pradesh	Rae Bareli	SONIA GANDHI	INC	6.3104
West Bengal	Maldaha Dakshin	ABU HASEM KHAN CHOWDHURY (DALU)	INC	5.6121
West Bengal	Baharampur	ADHIR RANJAN CHOWDHURY	INC	5.6121
Kerala	Malappuram	P.K. Kunhalikutty	IUML	5.4534
Kerala	Ponnani	E. T. Mohammed Basheer	IUML	5.4534
Assam	Kokrajhar	Naba Kumar Sarania	IND	4.8299
Jharkhand	Giridih	Chandra Prakash Choudhary	AJSUP	4.3328
Karnataka	Mandya	SUMALATHA AMBAREESH	IND	3.8927
Maharashtra	Amravati	Navnit Ravi Rana	IND	3.6842
Telangana	Hyderabad	ASADUDDIN OWAISI	AIMIM	2.7757
Kerala	Kollam	N.K.Premachandran	RSP	2.4512
Tamil Nadu	Tiruppur	SUBBARAYAN, K.	CPI	2.3774
Tamil Nadu	Nagapattinam	SELVARAJ M	CPI	2.3774
Tamil Nadu	Coimbatore	NATARAJAN. P.R	CPIM	2.3483
Tamil Nadu	Madurai	VENKATESAN S	CPIM	2.3483
Kerala	Kottayam	Thomas Chazhikadan	KEC(M)	2.0654
Rajasthan	Nagaur	HANUMAN BENIWAL	RLTP	2.0346
Uttar Pradesh	Mirzapur	Anupriya Singh Patel	ADAL	1.2020
Uttar Pradesh	Robertsganj	PAKAURI LAL KOL	ADAL	1.2020
Tamil Nadu	Chidambaram	THIRUMAAVALAVAN THOL	VCK	1.1528
Tamil Nadu	Ramanathapuram	K. NAVASKANI	IUML	1.0830
Maharashtra	Aurangabad	Imtiaz Jaleel Syed	MIMIA	0.7197
+	+		+	++

```
rahul@Rahul MINGW64 ~
$ mysql -u root -p
Enter password: ****
Welcome to the MySQL monitor. Commands end with ; or \gluon.
Your MySQL connection id is 25
Server version: 8.3.0 MySQL Community Server - GPL
Copyright (c) 2000, 2024, Oracle and/or its affiliates.
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql> SET GLOBAL local_infile=1;
Query OK, O rows affected (0.01 sec)
mysql> quit;
Bye
rahul@Rahul MINGW64 ~
$ mysql --local-infile=1 -u root -p
```

```
CREATE TABLE 2019_analysis (
    state CHAR(30),
    constituency VARCHAR(50),
    candidate_name VARCHAR(100),
    gender CHAR(4),
    age INT,
    category VARCHAR(10),
    party VARCHAR(50),
    party_symbol VARCHAR(50),
    general_votes INT,
    postal_votes INT,
    total_votes INT,
    total_electors INT
);
```

Enter password: ****

```
LOAD DATA LOCAL INFILE 'R:/constituency_wise_results_2019.csv'
INTO TABLE 2019_analysis
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(state, constituency, candidate_name, gender, age, category, party, party_symbol, general_votes, postal_votes, total_votes, total_electors);
```