```
CREATE TABLE "State" (
  StateCode char(2) NOT NULL,
  StateName varchar(30) ,
  PRIMARY KEY (StateCode)
);

COPY "State"
  FROM 'E:\data\State.csv'
  WITH (FORMAT CSV, HEADER);


CREATE TABLE Cases (
  StateCode char(2) NOT NULL,
  CasesDate date NOT NULL,
  CasesValues float,
  PRIMARY KEY (StateCode, CasesDate),
      FOREIGN KEY (StateCode) REFERENCES "State" (StateCode)
)
;

COPY Cases
  FROM 'E:\data\Cases.csv'
  WITH (FORMAT CSV, HEADER);


CREATE TABLE Death (
  StateCode char(2) NOT NULL,
  DeathDate date NOT NULL,
  DeathValues float,
  PRIMARY KEY (StateCode, DeathDate),
      FOREIGN KEY (StateCode) REFERENCES "State" (StateCode)
);

COPY Death
  FROM 'E:\data\Death.csv'
  WITH (FORMAT CSV, HEADER);

CREATE TABLE areas_of_high_infection (
      location_of_high_infection varchar(20),
      disease varchar(20),
      number_cases integer,
      weekly_deaths_reported varchar(1),
      date_reported date
);

COPY areas_of_high_infection
  FROM â□□E:\data\areas_of_high_infection.csvâ□□
  WITH (FORMAT CSV, HEADER, DELIMITER ',');


-- 1
/*
The ratio of daily deaths to confirmed diagnoses was calculated for each
state, and only records for 2022 are shown
```

```
*/

SELECT
S.statecode,S.statename,C.casesdate,C.casesvalues,D.deathvalues,
CASE WHEN C.casesvalues=0 THEN 0 ELSE D.deathvalues/C.casesvalues END  AS
Percentage
FROM "State" S
INNER JOIN cases C  ON S.statecode=C.statecode
INNER JOIN death D  ON S.statecode=D.statecode  AND
C.statecode=D.statecode AND C.casesdate=D.deathdate
WHERE C.casesdate BETWEEN '2022-01-01' AND '2022-12-31'
ORDER BY C.casesdate DESC ,S.statecode;



-- 2
/*
   Calculate the current cumulative number of deaths and cumulative number
of diagnoses for each state
*/
SELECT
S.statecode,S.statename,max(C.casesvalues) as
casesvalues,max(D.deathvalues) as deathvalues
FROM "State" S
INNER JOIN cases C  ON S.statecode=C.statecode
INNER JOIN death D  ON S.statecode=D.statecode  AND
C.statecode=D.statecode AND C.casesdate=D.deathdate
GROUP BY S.statecode,S.statename;

-- 3
/*
   Calculate the current average daily number of deaths and average daily
number of diagnoses in each state,
   Only states with an average number of deaths greater than 50 in a
single day are listed.
*/

SELECT
S.statecode,S.statename,
max(C.casesvalues)/count(distinct c.casesdate) as avgcasesvalues,
max(D.deathvalues)/count(distinct d.deathvalues) as avgdeathvalues
FROM "State" S
INNER JOIN cases C  ON S.statecode=C.statecode
INNER JOIN death D  ON S.statecode=D.statecode  AND
C.statecode=D.statecode AND C.casesdate=D.deathdate
GROUP BY S.statecode,S.statename
HAVING (max(D.deathvalues)/count(distinct d.deathvalues))>50;


-- 4
/*
   For each state, list the dates on which the number of deaths was higher
than the number confirmed
*/
```

```
SELECT
S.statecode,S.statename,C.casesdate,C.casesvalues,D.deathvalues
FROM "State" S
INNER JOIN cases C  ON S.statecode=C.statecode
INNER JOIN death D  ON S.statecode=D.statecode  AND
C.statecode=D.statecode AND C.casesdate=D.deathdate
WHERE d.deathvalues>c.casesvalues;

-- 5
/*
   Identify states with more deaths than diagnoses on a single day and
calculate their current cumulative death and diagnosis ratios based on
these states,
   Only the states with more than 10,000 confirmed diagnoses are listed.
*/

SELECT
S.statecode,S.statename,max(C.casesvalues) as
casesvalues,max(D.deathvalues) as
deathvalues,max(D.deathvalues)/max(C.casesvalues) AS Percentage
FROM "State" S
INNER JOIN cases C  ON S.statecode=C.statecode
INNER JOIN death D  ON S.statecode=D.statecode  AND
C.statecode=D.statecode AND C.casesdate=D.deathdate
WHERE S.statecode IN (
SELECT
S.statecode
FROM "State" S
INNER JOIN cases C  ON S.statecode=C.statecode
INNER JOIN death D  ON S.statecode=D.statecode  AND
C.statecode=D.statecode AND C.casesdate=D.deathdate
WHERE d.deathvalues>c.casesvalues
)
GROUP BY S.statecode,S.statename
HAVING max(C.casesvalues) >10000;

--6
/*
Determine how many locations are undergoing high rates of influzneza.
*/

SELECT
count(disease) AS "areas_of_high_influenza",
FROM areas_of_high_infection
WHERE disease LIKE 'influenza';
```