1)

create table entities (

id int auto\_increment primary key,

Entity varchar(255) not null,

Code varchar(10) not null);

insert into entities (entity, code)

SELECT DISTINCT Entity, Code

FROM infectious\_cases;

2)

CREATE TABLE infectious\_cases\_normalized (

id INT AUTO\_INCREMENT PRIMARY KEY,

entity\_id INT,

year INT,

number\_yaws VARCHAR(255),

polio\_cases INT,

cases\_guinea\_worm INT,

number\_rabies VARCHAR(255),

number\_malaria BIGINT,

number\_hiv VARCHAR(255),

number\_tuberculosis VARCHAR(255),

number\_smallpox VARCHAR(255),

number\_cholera\_cases VARCHAR(255),

FOREIGN KEY (entity\_id) REFERENCES entities(id)

);

insert into infectious\_cases\_normalized(

entity\_id,

year,

polio\_cases,

cases\_guinea\_worm,

number\_rabies,

number\_malaria,

number\_hiv,

number\_tuberculosis,

number\_smallpox,

number\_cholera\_cases

)

SELECT entities.id, ic.Year, ic.polio\_cases, ic.cases\_guinea\_worm, ic.Number\_rabies,

ic.Number\_malaria, ic.Number\_hiv, ic.Number\_tuberculosis, ic.Number\_smallpox, ic.Number\_cholera\_cases

FROM infectious\_cases ic

JOIN entities ON ic.Entity = entities.Entity AND ic.Code = entities.Code;

3)

select entity\_id,

min(Number\_rabies) AS min\_rabies,

max(Number\_rabies) AS max\_rabies,

avg(Number\_rabies) AS avg\_rabies,

sum(Number\_rabies) AS sum\_rabies

from infectious\_cases\_normalized inc

join entities on entity\_id=entities.id

where Number\_rabies != ''

group by entity\_id

order by avg\_rabies desc

limit 10

3)

select year,

makedate(year, 1) as first\_day,

curdate() as cur\_date,

timestampdiff(year,makedate(year, 1), curdate()) as year\_diff

from infectious\_cases\_normalized;

5)

DELIMITER //

create function CalculateYearDifference(year int)

returns int

DETERMINISTIC

begin

declare years\_diff int;

set years\_diff = timestampdiff(year,makedate(year, 1), curdate());

return years\_diff;

end//

DELIMITER ;

select year,

CalculateYearDifference(year) as years\_diff

from infectious\_cases\_normalized