1.

```
create SCHEMA if not exists pandemic;
use pandemic

select * from infectious_cases
```

2.

```
use pandemic;
SET SQL_SAFE_UPDATES = 0;
create table countries (
id int primary key auto_increment,
code varchar(8) unique,
country varchar(32) not null unique);

insert into countries (code, country)
select distinct code, entity from infectious_cases;

create table infectious_cases_norm
as select * from infectious_cases;

alter table infectious_cases_norm
add id int primary key auto_increment first,
add country_id int after id,
add constraint fk_country_id foreign key (country_id) references countries(id);

Update infectious_cases_norm icn, countries c
set icn.country_id = c.id where c.code = icn.code;

alter table infectious_cases_norm
drop column entity,
drop column code;

SET SQL_SAFE_UPDATES = 1;
```

/////////SET SQL_SAFE_UPDATES = 0; //// цей рядок знайшла на Stackoverflow, Без нього падала помилка
Update infectious_cases_norm icn, countries c set icn.country_id = c.id where c.code = icn.code Error Code: 1175. You are using safe update mode and you tried to update a table without a WHERE that uses a KEY column. To disable safe mode, toggle the option in Preferences -> SQL Editor and reconnect. 0.00040 sec //////

3.

```
use pandemic;
SELECT id, MAX(number_rabies) as max_value, MIN(number_rabies) as min_value,
AVG(number_rabies) as avg_value from infectious_cases_norm
```

```
Where number_rabies is not null and number_rabies != ""
group by id
order by avg_value desc
limit 10;
```

4.

```
 use pandemic;
SET SQL_SAFE_UPDATES = 0;

ALTER TABLE infectious_cases_norm
ADD start_date DATE NULL AFTER year,
ADD curr_date DATE NULL AFTER start_date,
ADD subtract_year INT NULL AFTER curr_date;


drop function if exists fn_start_date;

delimiter //

create function fn_start_date(year int)
returns date
deterministic
no sql
begin
declare result date;
set result = MAKEDATE(year,1);
return result;
end //

delimiter ;

drop function if exists fn_curr_date;

delimiter //

create function fn_curr_date()
returns date
deterministic
no sql
begin
declare result date;
set result = CURDATE();
return result;
end //

delimiter ;
```

```
drop function if exists fn_subtract_year;

delimiter //

create function fn_subtract_year(curr_date date, start_date date)
returns int
deterministic
no sql
begin
declare result int;
set result=year(curr_date)-year(start_date);
return result;
end //

delimiter ;

UPDATE infectious_cases_norm
set
curr_date = fn_curr_date(),
start_date = fn_start_date(year),
subtract_year = fn_subtract_year(curr_date, start_date);
SET SQL_SAFE_UPDATES = 1;
```

5.

```
use pandemic;
drop function if exists fn_subtract_this_year;

DELIMITER //

create function fn_subtract_this_year(year INT)
returns int
deterministic
no sql
begin
declare result INT;
set result = year(CURDATE()) - year;
return result;
end //

DELIMITER ;

select fn_subtract_this_year(1996);
```