P1_1

```
CREATE SCHEMA `pandemic`;
```

P1_2

```
USE pandemic;
SELECT * FROM pandemic.infectious_cases;
```

P2_1

```
create table country (id INT auto_increment primary key, country varchar(50), country_code varchar(10));

Insert into country (country, country_code) Select distinct Entity, Code from infectious_cases;

SELECT * FROM pandemic.country;
```

P2_2

```
CREATE TABLE `infectious_cases_norm` (
  `country_id` int NOT NULL,
  `Year` int DEFAULT NULL,
  `Number_yaws` text,
  `polio_cases` text,
  `cases_guinea_worm` text,
  `Number_rabies` text,
  `Number_malaria` text,
  `Number_hiv` text,
  `Number_tuberculosis` text,
  `Number_smallpox` text,
  `Number_cholera_cases` text
);

insert into infectious_cases_norm (`country_id`,
`Year`,
`Number_yaws`,
`polio_cases`,
`cases_guinea_worm`,
`Number_rabies`,
```

```
`Number_malaria`,
`Number_hiv`,
`Number_tuberculosis`,
`Number_smallpox`,
`Number_cholera_cases`)
select c.id,
i.`Year`,
i.`Number_yaws`,
i.`polio_cases`,
i.`cases_guinea_worm`,
i.`Number_rabies`,
i.`Number_malaria`,
i.`Number_hiv`,
i.`Number_tuberculosis`,
i.`Number_smallpox`,
i.`Number_cholera_cases` from infectious_cases i join country c on c.country =
i.Entity and c.country_code = i.Code;

SELECT * FROM pandemic.infectious_cases_norm;
```

P3_1

```
SELECT country_id,
AVG(number_rabies) AS avg_number_rabies,
MIN(number_rabies) AS min_number_rabies,
MAX(number_rabies) AS max_number_rabies,
SUM(number_rabies) AS sum_number_rabies
FROM infection_statistics
WHERE number_rabies != ''
GROUP BY country_id;
```

P3_2

```
SELECT country_id,
AVG(number_rabies) AS avg_number_rabies,
MIN(number_rabies) AS min_number_rabies,
MAX(number_rabies) AS max_number_rabies,
SUM(number_rabies) AS sum_number_rabies
FROM infection_statistics
```

```
WHERE number_rabies != ''
GROUP BY country_id
ORDER BY avg_number_rabies DESC;
```

P3_3

```
SELECT country_id,
AVG(number_rabies) AS avg_number_rabies,
MIN(number_rabies) AS min_number_rabies,
MAX(number_rabies) AS max_number_rabies,
SUM(number_rabies) AS sum_number_rabies
FROM infection_statistics
WHERE number_rabies != ''
GROUP BY country_id
ORDER BY avg_number_rabies DESC
LIMIT 10;
```

P4

```
SELECT country_id, `Year`, MAKEDATE(`Year`, 1) as `data`, NOW() as
current_data, TIMESTAMPDIFF(YEAR,MAKEDATE(`Year`, 1),NOW()) as
difference_years
FROM pandemic.infectious_cases_norm;
```

P5_1

```
USE pandemic;

DROP FUNCTION IF EXISTS difference_years;

DELIMITER //

CREATE FUNCTION difference_years(year INT)
RETURNS int
DETERMINISTIC
NO SQL
BEGIN
        DECLARE result INT;
   SET result = YEAR(CURDATE()) - year;
   RETURN result;
END //

DELIMITER ;

SELECT difference_years(1996);
```

P5_2

```
DROP FUNCTION IF EXISTS calc_illnesses;

DELIMITER //

CREATE FUNCTION calc_illnesses(num_illnesses_per_year DOUBLE, period
INT)
RETURNS DOUBLE
DETERMINISTIC
NO SQL
BEGIN
   DECLARE result DOUBLE;
   SET result = num_illnesses_per_year / period;
   RETURN result;
```

```
END //

DELIMITER ;

SELECT calc_illnesses(6000, 12);
```