جامعة أبوظبي
ABU DHABI UNIVERSITY

COVID-19 TESTING MANAGEMENT DATABASE

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Abstract:

COVID-19 has forced the world into unprecedented situations. Most of all, the health sector has felt the burden of providing the protection gears, testing kits etc. While all the big pharmacy companies across the globe are putting in best of their endeavours to come up with an effective vaccine for COVID-19, the number of people suffering and dying due to COVID-19 is rising exponentially. WHO reports that it might take another few months or more before the vaccine is developed and made available to the masses. WHO recommends that till such time an effective vaccine is developed, the only way to contain or restrict this pandemic is to keep testing and isolating. Ideally, such rigorous testing would require each person to be tested atleast once in a week. But with the world population nearing 8 billion, this would mean need for 8 billion testing kits per week. Such a mass level manufacturing of testing kits is neither possible technically nor financially. Also, it is a known fact that not all the people are equally susceptible to COVID-19. So, we have come with a prototype to prioritize the people and classify them into categorizes based on their priority levels. For instance, those living with the Covid patients, Health worker dealing with Covid patients, people with already existing life-threatening diseases etc may be kept highest in the priority.

Introduction:

The recent outbreak of the pandemic of COVID-19 has halted the lives of many people. The great efforts of health line workers, governments, techies, and essential workers have allowed some sense of normalcy in the lives of many. The number of COVID positive cases are relatively stable, but with spikes of new positive cases that arise, an alarm of a foreseeable crisis of COVID-19 test kits can be realized. (Real Time Statistics of Corona Cases, 2020)

Currently, there is a lack of a system prioritizing people who are more prone to contact the virus and get severe health impacts. As per WHO[1], people who are above the age of 60 or have health conditions like lung or heart disease, diabetes, or conditions that affect their immune system are at high risk of the damages caused by the virus (WHO, 2020). Various organizations, including Abu Dhabi University, have instructed their faculty, staff, and employees to get the right protection for people at high risk and also require a doctor's advice on their medical fitness. The flaw in the demand of new HR policies is that everyone needs to be tested every 14 days, which cannot balance the supply of tests available because the time duration expected for this pandemic to last is uncertain and long. Therefore, we must prioritize and test sustainably by prioritizing the high-risk groups first. The current system in UAE is the AlHosn App[2], which is a systematic approach to calculate the exact statistics of the COVID positive cases in the UAE. The fact that everyone is being tested is a good thing, but since we do not know the duration of how long the pandemic will last, testing on low-risk people seems like a luxury which we cannot afford in terms of COVID testing kits; therefore, planned to prioritize of testing should be done.

The below-mentioned table is our hypothesized testing frequency, which should be the maximum limit of tests done to a person. The higher the priority number is, the more risk-prone they are and must get checked in these recommended rates. We believe this level of sorting on priority number will safeguard the people who have more risk of fatality due to this virus.

Table 1: Maximum Recommended Testing Frequency based on priority number

Priority Number	Recommended Testing Frequency
10	Once in a week
7	Once in 2 weeks
5	Once in 3 weeks
3	Once in 4 weeks
1	Once between 5 – 6 weeks.

The next table is the priority table we have hypothesized for priority based on our WHO's findings combined with more specific prone categories inspired by ADU's HR policy[3].

Table 2: Needful categories and their priority number

Priority Category	Priority Number
People suffering from lung or heart disease	10
People suffering from chronic diseases like Diabetes	10
People suffering from immunodeficiency diseases like Acquired Immunodeficiency Syndrome (AIDS)	10
People above the age of 60	10
Pregnant Women	10
People who are COVID positive	10
People living with the above-mentioned people	10
People who show symptoms of COVID-19	10
People who sanitize or clean buildings	7
Health Line Workers	7
Front desk employees	7
Physical School going children	7
Jobs which require to interact with people physically	7
People who have returned from other countries	5
People who commute in public transport or carpool	3
People who live with the above-mentioned employees or students	3
People who do not fall under any category	1

Discussion:

This project aims to create an integrated database system for prioritized testing for people who are more prone to the dangerous ill-effects of Corona Virus. This involved:

- Creating a logical and meaningful entity - relation diagram to integrate systematically.
- Eliminating data redundancy by linking tables and databases with the needed databases.
- Organizing the data according to the recommended priority order for testing.

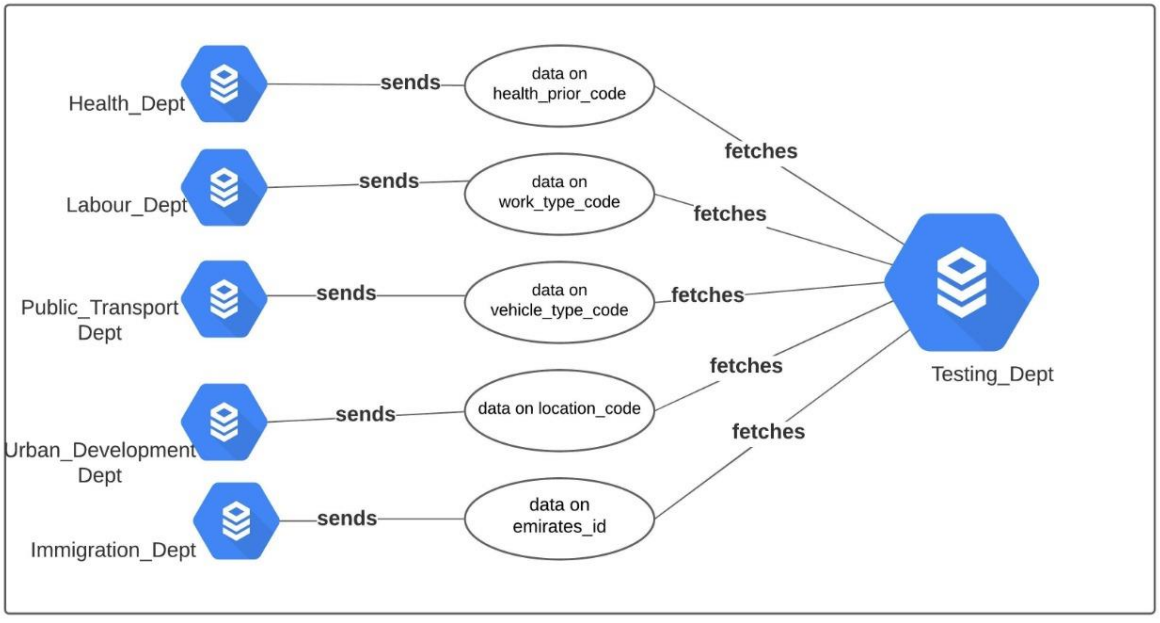
Developing the ERD

To begin with, we need to identify the major players in this project. As mentioned in table 2 above, the we would require the data about people regarding their health issues, work profile, mode of transports, residential area to classify them into priority categories. The data for this may be fetched from various government departments. For the scope of this project, we have assumed drawing data from the following government departments:

- Health Department
- Transport Department
- Work/Labour Department
- Immigration Department
- Urban Development Department

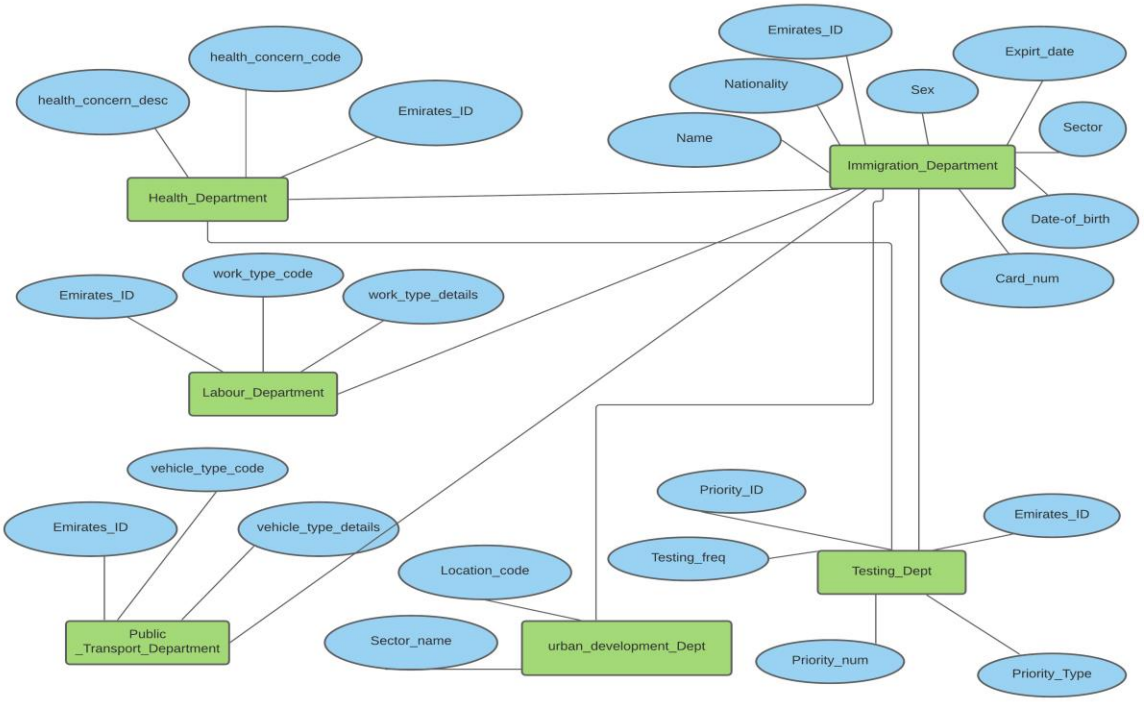
Further, we assume to be working in the COVID Testing Department. Accordingly we see the various departments working in concurrence with each other.

Figure 1: UML for Government departments and their inter-connection



This now led us to our first major step in the development of this project of developing an ERD for the system. Each of the department has its own database and we may fetch the data as per our requirement. The attributes have been mentioned below each entity. The PK and FK denote Primary Keys and foreign Keys respectively.

Figure 2: Initial ERD

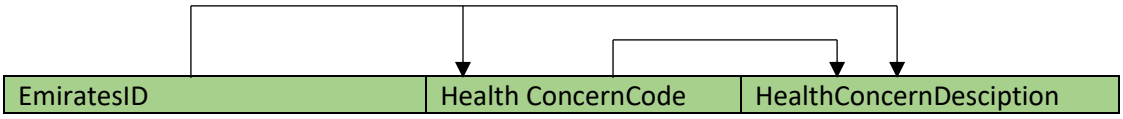


Normalizing the tables

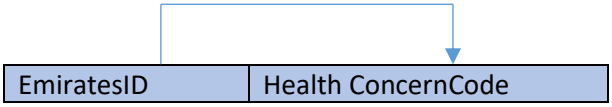
The data redundancy in this ERD was removed by normalization[4] of the ERD. The data was already in 1NF because it had all the atomic values. The data was also in 2NF as most of the tables had a single primary key. Also in case of those tables with composite keys, such tables are also in 2NF due to their functional dependencies[5], i.e. all the non-primary key attributes are dependent on primary key attributes. However, the transitive data dependency[6] was found in some of the tables. In such tables, some non-primary attributes are dependent on some other non-primary attributes. So, in order to make the database normalized as per 3NF, tables were broken up into simpler tables which removed the transitive dependency.

Figure 3: Data dependency and Normalization required

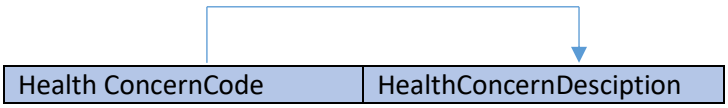
1. Data From Health Department



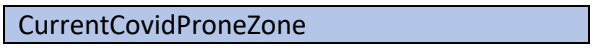
Normalized Table1



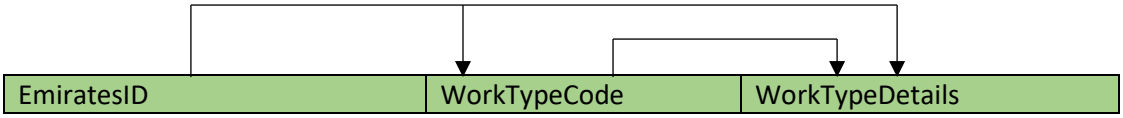
Normalized Table2



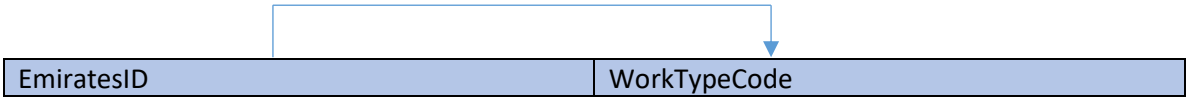
Normalized Table3



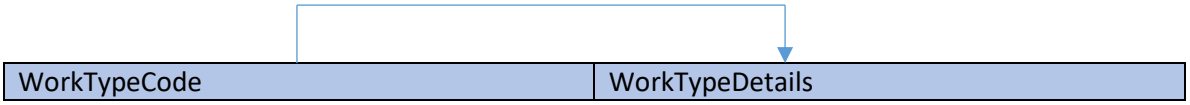
2. Data from Labour Department



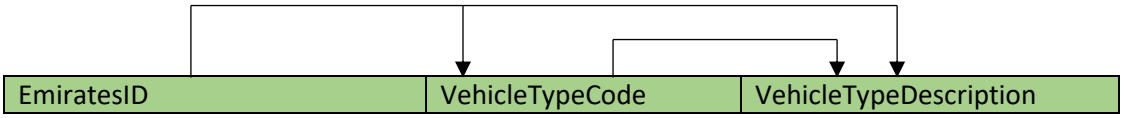
Normalized Table 4



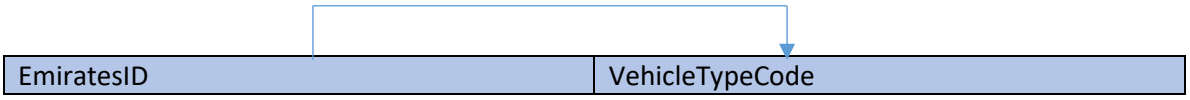
Normalized Table 5



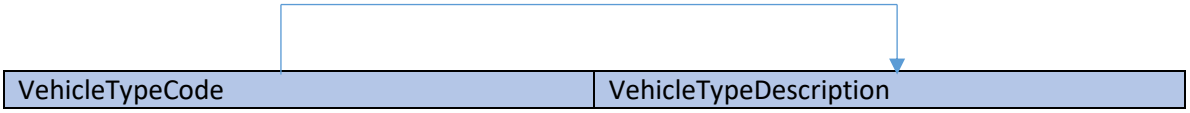
3. Data from Public Transport Department



Normalized Table 6

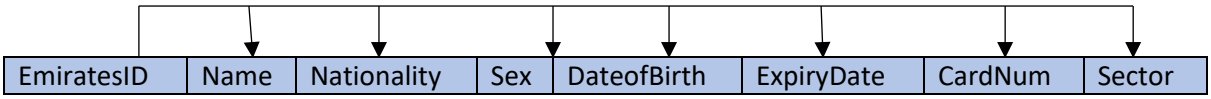


Normalized Table 7

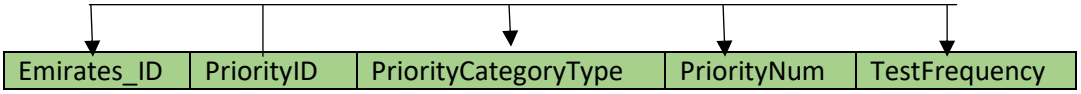


4. Data from Immigration Department or Emirates ID

Normalized Table 8

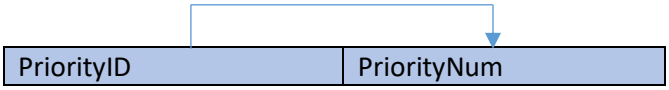


5. Testing Department

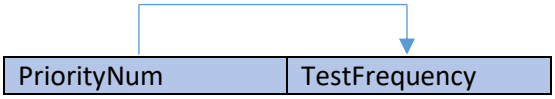


Priority Sheet Normalized to

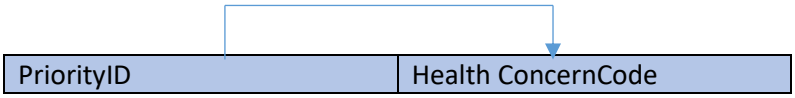
Normalized Table 9 Priority



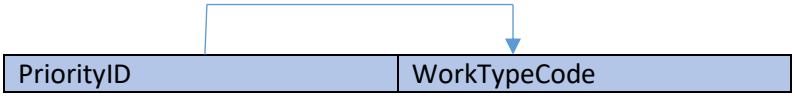
Normalized Table 10 Test Frequency



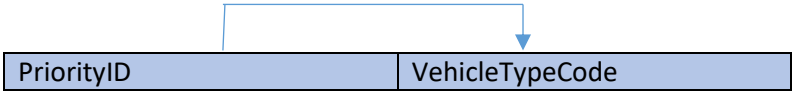
Normalized Table 11 Health Priority



Normalized Table 12 Work Priority



Normalized Table 13 Transport Priority



Normalized Table 14 Person Priority

EmiratesID	PriorityID

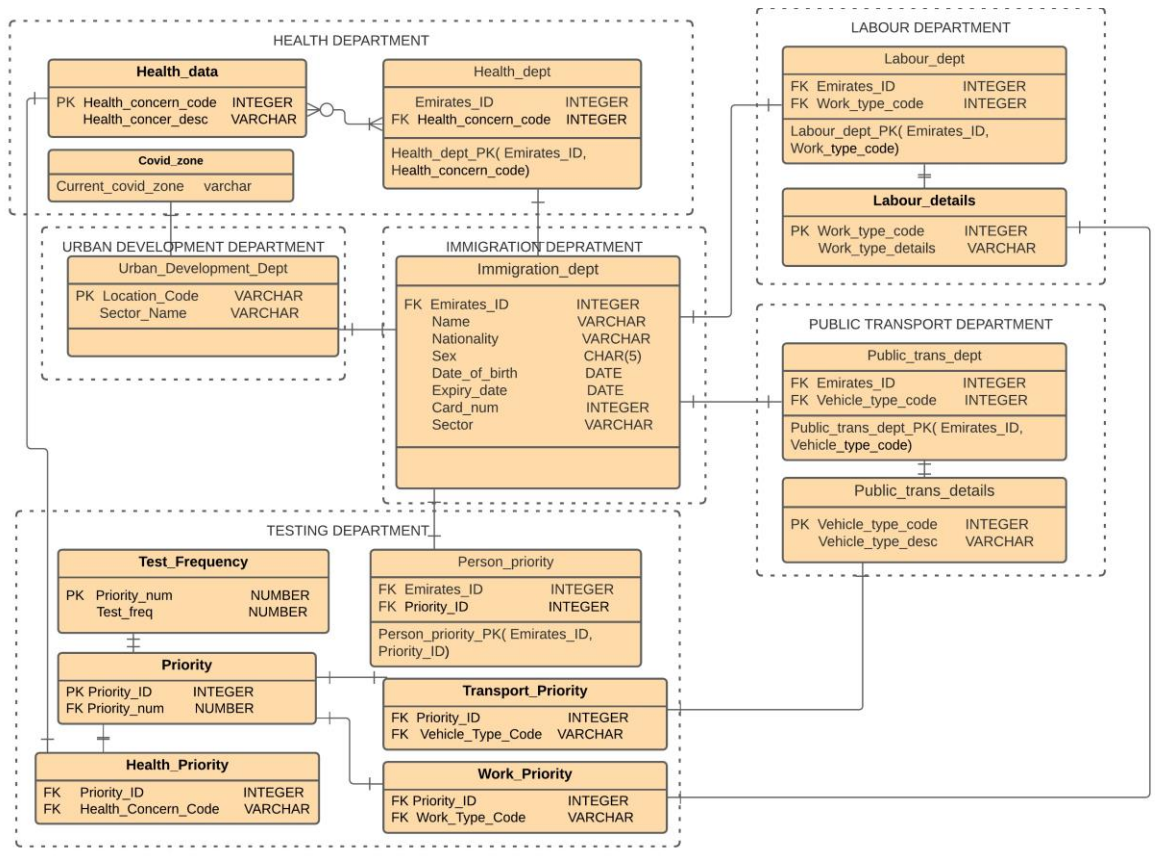
6. Urban Development Department

Normalized Table 15

Loc_code	Sector_name

Based on such normalization of the tables as given above, the final ERD was developed before we could begin coding to develop the database design using SQL.

Figure 4: Final Normalized ERD



Developing the SQL code

Once the final ERD was complete, the SQL code for creation of the required tables and for entering the values therein was done. The complete SQL code for the system may be found at APPENDIX 1. Here, for the purpose of reporting demonstration, we have included the CREATE TABLE commands of the tables created.

Figure 5: CREATE TABLE SQL commands

```
CREATE DATABASE TEST_DB;

CREATE TABLE Priority ( Priority_ID INTEGER , priority_num NUMERIC REFERENCES Test_frequency (Priority_num), PRIMARY KEY (Priority_ID));

CREATE TABLE Urban_Development_department ( Loc_code VARCHAR(100), Sector_name VARCHAR(100), PRIMARY KEY (Loc_code) );

CREATE TABLE Immigration_Dept (

  Emirates_ID  VARCHAR(20),

  Name  VARCHAR(100),

  Nationality  VARCHAR(100),

  sex  CHAR (5),

  Date_of_birth DATE,

  Expiry_date  DATE,

  Card_num  INT,

  Sector  VARCHAR (4) REFERENCES Urban_Development_department (Loc_code),

  PRIMARY KEY (Emirates_ID));

CREATE TABLE Health_data (

  health_concern_code VARCHAR(20),

  health_desc  VARCHAR(100),

  PRIMARY KEY (health_concern_code));

CREATE TABLE Health_Dept (

  Emirates_ID  VARCHAR(20) REFERENCES Immigration_Dept (Emirates_ID),

  health_concern_code  VARCHAR(20) REFERENCES Health_data (health_concern_code),

  PRIMARY KEY (Emirates_ID, health_concern_code));

  CREATE TABLE Covid_zone (

  Loc_code  VARCHAR(4)  REFERENCES Urban_Development_department (Loc_code),

 PRIMARY KEY (Loc_code));

CREATE TABLE Health_Priority (

  Priority_ID  INTEGER REFERENCES Priority (Priority_ID),

  Health_concern_code  VARCHAR(20) REFERENCES Health_data (health_concern_code));

CREATE TABLE Labour_details (

    Work_type_code  VARCHAR(20),

    Work_type_details VARCHAR(100),

    PRIMARY KEY (Work_type_code));

CREATE TABLE Labour_dept (

  Emirates_ID  VARCHAR(20)  REFERENCES Health_Dept (Emirates_ID),

  Work_type_code  VARCHAR(20)  REFERENCES Labour_details (Work_type_code),

  PRIMARY KEY (Emirates_ID, Work_type_code));

CREATE TABLE Public_trans_details (

  Vehicle_type_code VARCHAR(20) ,

  Vehicle_desc  VARCHAR(100),

  PRIMARY KEY (Vehicle_type_code));

CREATE TABLE Public_trans_dept (

  Emirates_ID  VARCHAR(20) REFERENCES Health_Dept (Emirates_ID),

  Vehicle_type_code  VARCHAR(20)  REFERENCES Public_trans_details (Vehicle_type_code),

  PRIMARY KEY (Emirates_ID, Vehicle_type_code));

CREATE TABLE Test_frequency (

  Priority_num NUMERIC ,

  test_freq  VARCHAR(100),

  PRIMARY KEY (Priority_num));


CREATE TABLE Transport_priority (

  Priority_ID  INTEGER REFERENCES Priority (Priority_ID),

  Vehicle_type_code  VARCHAR(20)  REFERENCES Public_trans_details (Vehicle_type_code));

CREATE TABLE Work_Priority (

  Priority_ID  INTEGER REFERENCES Priority (Priority_ID),

  Work_type_code  VARCHAR(20)  REFERENCES Labour_details (Work_type_code));
```

Now, for the purpose of generating the sorted list of people in decreasing order of their priority to get tested, we now generate views in the SQL code. The updated data is fetched into the view[7] from all the different databases of the various departments that are the stakeholders in this project.

Figure 6: SQL Commands for generating Priority view

```
CREATE TABLE H_Priority_List AS
  SELECT h.health_concern_code AS health_cc,
      Immigration_Dept.Emirates_ID AS Emirates_ID,
      Immigration_Dept.Name
   FROM Health_Dept h
      INNER JOIN
      Immigration_Dept ON
Immigration_Dept.Emirates_ID = h.Emirates_ID
   WHERE h.health_concern_code IN (
 SELECT Health_concern_code
  FROM Health_Priority);
CREATE TABLE H_Prior1 AS
 SELECT H_Priority_List.Emirates_ID AS Emirates_ID,
 H_Priority_List.health_cc,
 Health_Priority.Priority_ID
  FROM (H_Priority_List  INNER JOIN
   Health_Priority ON H_Priority_List.health_cc =
Health_Priority.Health_concern_code );
CREATE VIEW H_Prior AS
   SELECT DISTINCT H_Prior1.Emirates_ID AS
Emirates_ID,
       Priority.priority_num AS Priority_num
   FROM H_Prior1 INNER JOIN
   Priority ON H_Prior1.Priority_ID =
Priority.Priority_ID
   ORDER BY Priority_num DESC;
CREATE VIEW T_Prior1 AS
   SELECT Public_trans_dept.Emirates_ID,
Transport_priority.Priority_ID
   FROM Public_trans_dept INNER JOIN
Transport_priority
 ON Public_trans_dept.Vehicle_type_code =
Transport_priority.Vehicle_type_code ;
CREATE VIEW T_Prior AS
      SELECT DISTINCT T_Prior1.Emirates_ID AS
Emirates_ID,
  Priority.priority_num AS Priority_num
      FROM T_Prior1 INNER JOIN
      Priority ON T_Prior1.Priority_ID =
Priority.Priority_ID
      ORDER BY Priority_num DESC;
CREATE VIEW W_Prior1 AS
   SELECT Labour_dept.Emirates_ID,
Work_Priority.Priority_ID
   FROM  Labour_dept INNER JOIN Work_Priority
 ON Labour_dept.Work_type_code=
Work_Priority.Work_type_code ;
CREATE VIEW W_Prior AS
      SELECT DISTINCT W_Prior1.Emirates_ID AS
Emirates_ID,
  Priority.priority_num AS Priority_num
      FROM W_Prior1 INNER JOIN
      Priority ON W_Prior1.Priority_ID =
Priority.Priority_ID
      ORDER BY Priority_num DESC;
CREATE VIEW CZ_Prior AS
 SELECT DISTINCT Emirates_ID FROM
Immigration_Dept
 WHERE Sector IN (SELECT Loc_code FROM
Covid_zone);
```

Results:

The system gathers data from various government departments and processes it in light of the priority numbers and recommended testing frequency set by us in the Table 1 and Table 2 above. As per the SQL codes, the tables in the database can be seen in the following output figure.

Figure 7: Tables existing in the database

Output Input Comments 0

```
Tables_in_test
Covid_zone
Health_Dept
Health_Priority
Health_data
Immigration_Dept
Labour_dept
Labour_details
Priority
Public_trans_dept
Public_trans_details
Test_frequency
Transport_priority
Urban_Development_department
Work_Priority
```

After the view command is executed in the DBMS, the list of people can be seen with highest priority person been shown at the top. The priority level decreases as we go down the list.

Figure 8: Sample Output of View Commands

Emirates_ID	Priority_num
784-1234-1234567-11	10
784-1234-1234567-12	10
784-1234-1234567-6	10
784-1234-1234567-5	10
784-1234-1234567-15	10
784-1234-1234567-4	10
784-1234-1234567-9	7
784-1234-1234567-8	7
784-1234-1234567-7	7
784-1234-1234567-20	7
784-1234-1234567-19	7
784-1234-1234567-18	7
784-1234-1234567-13	7

Conclusion:

As can be seen from the results, the authority who decides on whom to be tested next, is now more equipped with the knowledge of people who need the testing to be done on priority. The time required to find the person with most immediate requirement of COVID test has been exponentially reduced. The system now is more reliable in terms of covering all the Priority 10 level persons before moving on to the persons with lesser priorities. The existing data with various departments can be processed. Making use of the technology, UAE can be a model for the world, to utilize the existing COVID testing facility to the best of its use by categorizing the people into priority categories on the basis of the recommended guidelines by the professionals who know how COVID virus attacks.

Recommendations:

The system proposed by us uses TABLE and VIEW creation in DBMS to generate the list of people who need to be tested on priority. However, this system may be used by the administration and concerned agencies to come up with a real-time updating system. The recommended COVID testing priority classes may be updated as per suggestions from experts. Also, Triggers may be used to develop a real-time system wherein the data in the testing priority views may be updated as the data in any of the stakeholder department is updated.

This system would also be a concept in the future for prioritizing testing with limited supplies. Therefore calculated measures can be taken in a similar scenario of demand and low supply. This system would further need testing and Rapid Application Development (RAD) as it is still in the prototype phase.

Using this prototype a full-fledged application may be developed later, where even individuals can view their own priority levels. Making such use of the technology, UAE can show the path to the world to make the most efficient use of its existing resources, which for the purpose of this project is the testing-kits.

References:

[1] Laboratory testing strategy recommendations for COVID-19, Interim Guidance, 21 March 2020, https://apps.who.int/iris/bitstream/handle/10665/331509/WHO-COVID-19-lab_testing-2020.1-eng.pdf?sequence=1&isAllowed=y

[2] About Al Hosn app https://www.alhosnapp.ae/en/about-alhosn/

[3] https://www.adu.ac.ae/

[4] Normalization in DBMS: 1NF, 2NF, 3NF and BCNF in Database

[5] DBMS Functional Dependency - javatpoint

[6] Transitive Dependency in a Database - Lifewire

[7] SQL CREATE VIEW, REPLACE VIEW, DROP VIEW Statements

APPENDIX 1

```
CREATE DATABASE TEST_DB;


CREATE TABLE Priority (    Priority_ID  INTEGER , priority_num
NUMERIC REFERENCES Test_frequency (Priority_num),
PRIMARY KEY (Priority_ID));


CREATE TABLE Urban_Development_department ( Loc_code
VARCHAR(100), Sector_name VARCHAR(100), PRIMARY KEY
(Loc_code) );


CREATE TABLE Immigration_Dept (

   Emirates_ID   VARCHAR(20),

   Name         VARCHAR(100),

   Nationality   VARCHAR(100),

   sex          CHAR (5),

   Date_of_birth DATE,

   Expiry_date   DATE,

   Card_num      INT,

   Sector       VARCHAR (4) REFERENCES
Urban_Development_department (Loc_code),

   PRIMARY KEY (Emirates_ID));


CREATE TABLE Health_data (

   health_concern_code VARCHAR(20),

   health_desc        VARCHAR(100),

   PRIMARY KEY (health_concern_code));


CREATE TABLE Health_Dept (

   Emirates_ID        VARCHAR(20) REFERENCES
Immigration_Dept (Emirates_ID),

   health_concern_code VARCHAR(20) REFERENCES
Health_data (health_concern_code),

   PRIMARY KEY (Emirates_ID, health_concern_code));


   CREATE TABLE Covid_zone (

   Loc_code VARCHAR(4) REFERENCES
Urban_Development_department (Loc_code),

  PRIMARY KEY (Loc_code));


CREATE TABLE Health_Priority (

   Priority_ID        INTEGER REFERENCES Priority (Priority_ID),

   Health_concern_code VARCHAR(20) REFERENCES
Health_data (health_concern_code));

CREATE TABLE Labour_details (

        Work_type_code    VARCHAR(20),

        Work_type_details VARCHAR(100),

        PRIMARY KEY (Work_type_code));

CREATE TABLE Labour_dept (

   Emirates_ID    VARCHAR(20) REFERENCES Health_Dept
(Emirates_ID),

   Work_type_code VARCHAR(20) REFERENCES Labour_details
(Work_type_code),

   PRIMARY KEY (Emirates_ID, Work_type_code));


CREATE TABLE Public_trans_details (

   Vehicle_type_code VARCHAR(20) ,

   Vehicle_desc      VARCHAR(100),

   PRIMARY KEY (Vehicle_type_code));


CREATE TABLE Public_trans_dept (

   Emirates_ID       VARCHAR(20) REFERENCES Health_Dept
(Emirates_ID),

   Vehicle_type_code VARCHAR(20) REFERENCES
Public_trans_details (Vehicle_type_code),

   PRIMARY KEY (Emirates_ID, Vehicle_type_code));


CREATE TABLE Test_frequency (

   Priority_num NUMERIC ,

   test_freq    VARCHAR(100),

   PRIMARY KEY (Priority_num));


CREATE TABLE Transport_priority (

   Priority_ID      INTEGER REFERENCES Priority (Priority_ID),

   Vehicle_type_code VARCHAR(20) REFERENCES
Public_trans_details (Vehicle_type_code));


CREATE TABLE Work_Priority (

   Priority_ID    INTEGER REFERENCES Priority (Priority_ID),
```

```
   Work_type_code VARCHAR(20) REFERENCES Labour_details
(Work_type_code));
```

```
INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('1', '10');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('2', '10');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('3', '10');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('4', '10');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('5', '10');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('6', '10');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('7', '10');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('8', '10');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('9', '7');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('10', '7');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ( '11', '7');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('12',  '7');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('13', '7');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('14',  '5');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('15', '3');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('16', '3');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('17', '1');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('18', '2');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('19', '4');

INSERT INTO Priority (Priority_ID, priority_num)
 VALUES ('20', '3');
```

```
INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'P1',
    'A5'
 );

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
```

```
    'P2',
    'B2'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'P3',
    'C4'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'P4',
    'A1'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'P5',
    'B6'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'P6',
    'A2'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'P7',
    'B1'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'P8',
    'B3'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'P9',
    'C2'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'P10',
    'D5'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'Q1',
    'D4'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'Q2',
    'A3'
);

INSERT INTO Urban_Development_department (Loc_code,
Sector_name)
 VALUES (
    'Q3',
    'B3'
```

```
);

INSERT INTO Urban_Development_department (Loc_code, Sector_name)
 VALUES (
    'Q4',
    'D2'
 );

INSERT INTO Urban_Development_department (Loc_code, Sector_name)
 VALUES (
    'Q5',
    'C1'
 );

INSERT INTO Urban_Development_department (Loc_code, Sector_name)
 VALUES (
    'Q6',
    'C5'
 );

INSERT INTO Urban_Development_department (Loc_code, Sector_name)
 VALUES (
    'Q7',
    'D4'
 );

INSERT INTO Urban_Development_department (Loc_code, Sector_name)
 VALUES (
    'Q8',
    'C2'
 );

INSERT INTO Urban_Development_department (Loc_code, Sector_name)
 VALUES (
    'Q9',
    'D3'
 );

INSERT INTO Urban_Development_department (Loc_code, Sector_name)
 VALUES (
    'Q10',
    'B8'
 );

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)
      VALUES ('784-1234-1234567-1', 'Rakesh', 'Indian', 'M', '1984-10-09', '2032-09-10', 1789, 'A5'       );

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)
      VALUES ('784-1234-1234567-2', 'Sheriyar', 'Pakistani', 'F', '1992-08-02', '2033-02-08', 7239, 'B2');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)
      VALUES ('784-1234-1234567-3', 'Ali', 'Iraqi', 'M', '1987-03-22', '2028-03-22', 7769, 'C4');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)
      VALUES ( '784-1234-1234567-4', 'Fadir', 'Qatari', 'M', '1990-11-13', '2022-11-13', 7111, 'A1' );

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)
      VALUES ( '784-1234-1234567-5', 'Arsal', 'Pakistani', 'M', '1989-12-15', '2027-12-15', 7722, 'B6');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)
      VALUES ( '784-1234-1234567-6', 'Ibrahim', 'Saudi', 'M', '1994-05-19', '2028-05-19', 7733, 'A2');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)
```

```
VALUES ( '784-1234-1234567-7', 'Linda', 'Qatari', 'F', '1992-01-22', '2029-01-22', 7744, 'B1');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-8', 'Sanya', 'Indian', 'F', '1984-01-09', '2030-01-09', 7755, 'B3' );

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ('784-1234-1234567-9', 'Mohammed', 'Saudi', 'M', '1993-04-08', '2031-04-08', 7766, 'C2');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-10', 'Sara', 'Iraqi', 'F', '1990-11-17', '2035-11-17', 7777, 'D5' );

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-11', 'Jamshed', 'Pakistani', 'M', '1990-12-08', '2025-12-08', 7788, 'D4');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-12', 'Riya', 'Indian', 'F', '1980-04-29', '2034-04-29', 7799, 'A3');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-13', 'Sarah', 'Qatari', 'F', '1991-05-21', '2029-05-21', 7666, 'B3' );

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-14', 'Milad', 'Saudi', 'M', '1988-08-27', '2030-08-27', 7888, 'D2');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-15', 'Zain', 'Iraqi', 'M', '1987-08-13', '2031-08-13', 7999, 'C1');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-16', 'Heba', 'Saudi', 'F', '1987-08-15', '2032-08-15', 4567, 'C5');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ('784-1234-1234567-17', 'Gulshan', 'Indian', 'M', '1988-09-20', '2027-09-20', 2344, 'D4');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-18', 'Fatima', 'Iraqi', 'F', '1991-07-29', '2025-07-29', 1998, 'C2');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-19', 'Mustafa', 'Saudi', 'M', '1992-02-13', '2034-02-13', 8725, 'D3');

INSERT INTO Immigration_Dept (Emirates_ID, Name, Nationality, sex, Date_of_birth, Expiry_date, Card_num, Sector)

VALUES ( '784-1234-1234567-20', 'Ela', 'Qatari', 'F', '1984-11-19', '2036-11-19', 5624, 'B8');

INSERT INTO Health_data (
    health_concern_code,
    health_desc
)
VALUES (
    'DHA-1',
    'Heart Issues'
);

INSERT INTO Health_data (
    health_concern_code,
    health_desc
)
VALUES (
    'DHA-2',
    'cough.fever'
);

INSERT INTO Health_data (
```

```
    health_concern_code,
    health_desc
  )
  VALUES (
    'DHA-3',
    'fever'
  );

INSERT INTO Health_data (
    health_concern_code,
    health_desc
  )
  VALUES (
    'DHA-4',
    'cough'
  );

INSERT INTO Health_data (
    health_concern_code,
    health_desc
  )
  VALUES (
    'DHA-5',
    'cough,cold'
  );

INSERT INTO Health_data (
    health_concern_code,
    health_desc
  )
  VALUES (
    'DHA-6',
    'cold,fever'
  );

INSERT INTO Health_data (
    health_concern_code,
    health_desc
  )
  VALUES (
    'DHA-7',
    'fever, throat ache'
  );

INSERT INTO Health_data (
    health_concern_code,
    health_desc
  )
  VALUES (
    'DHA-8',
    'breathing problem,fever'
  );

INSERT INTO Health_data (
    health_concern_code,
    health_desc
  )
  VALUES (
    'DHA-9',
    'low bp'
  );

INSERT INTO Health_data (
    health_concern_code,
    health_desc
  )
  VALUES (
    'DHA-10',
    'cold,low bp'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
```

```
  )
  VALUES (
    '784-1234-1234567-1',
    'DHA-2'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-2',
    'DHA-3'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-3',
    'DHA-4'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-4',
    'DHA-5'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-5',
    'DHA-8'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-6',
    'DHA-1'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-7',
    'DHA-2'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-8',
    'DHA-3'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-9',
    'DHA-4'
```

```
);

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
)
VALUES (
    '784-1234-1234567-10',
    'DHA-5'
);

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
)
VALUES (
    '784-1234-1234567-11',
    'DHA-6'
);

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
)
VALUES (
    '784-1234-1234567-12',
    'DHA-7'
);

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
)
VALUES (
    '784-1234-1234567-13',
    'DHA-8'
);

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
)
VALUES (
    '784-1234-1234567-14',
    'DHA-9'
);

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
)
VALUES (
    '784-1234-1234567-15',
    'DHA-10'
);

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
)
VALUES (
    '784-1234-1234567-16',
    'DHA-1'
);

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
)
VALUES (
    '784-1234-1234567-17',
    'DHA-2'
);

INSERT INTO Health_Dept (
    Emirates_ID,
```

```
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-18',
    'DHA-3'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-19',
    'DHA-4'
  );

INSERT INTO Health_Dept (
    Emirates_ID,
    health_concern_code
  )
  VALUES (
    '784-1234-1234567-20',
    'DHA-7'
  );



  INSERT INTO Covid_zone (
      Loc_code
    )
    VALUES (
      'P2'
    );

  INSERT INTO Covid_zone (
      Loc_code
    )
  VALUES (
    'P3'
  );

INSERT INTO Covid_zone (
    Loc_code
  )
  VALUES (
    'P4'
  );

INSERT INTO Covid_zone (
    Loc_code
  )
  VALUES (
    'P5'
  );

INSERT INTO Covid_zone (
    Loc_code
  )
  VALUES (
    'P1'
  );

INSERT INTO Covid_zone (
    Loc_code
  )
  VALUES (
    'Q9'
  );

INSERT INTO Covid_zone (
    Loc_code
  )
  VALUES (
    'P9'
  );
```

```
INSERT INTO Covid_zone (
    Loc_code
)
VALUES (
    'Q4'
);

INSERT INTO Covid_zone (
    Loc_code
)
VALUES (
    'Q6'
);


INSERT INTO Health_Priority (
    Priority_ID,
    Health_concern_code
)
VALUES (
    '1',
    'DHA-3'
);

INSERT INTO Health_Priority (
    Priority_ID,
    Health_concern_code
)
VALUES (
    '4',
    'DHA-4'
);

INSERT INTO Health_Priority (
    Priority_ID,
    Health_concern_code
)
VALUES (
    '20',
    'DHA-5'
);

INSERT INTO Health_Priority (
    Priority_ID,
    Health_concern_code
)
VALUES (
    '9',
    'DHA-6'
);

INSERT INTO Health_Priority (
    Priority_ID,
    Health_concern_code
)
VALUES (
    '15',
    'DHA-2'
);

INSERT INTO Health_Priority (
    Priority_ID,
    Health_concern_code
)
VALUES (
    '13',
    'DHA-1'
);

INSERT INTO Health_Priority (
    Priority_ID,
    Health_concern_code
)
VALUES (
```

```
        '2',
        'DHA-10'
    );

INSERT INTO Health_Priority (
        Priority_ID,
        Health_concern_code
    )
    VALUES (
        '3',
        'DHA-2'
    );


    INSERT INTO Labour_details (
  Work_type_code,
  Work_type_details
)
VALUES (
  'NE',
  'NURSE'
);

    INSERT INTO Labour_details (
  Work_type_code,
  Work_type_details
)
VALUES (
  'CR',
  'COMPOUNDER'
);

    INSERT INTO Labour_details (
  Work_type_code,
  Work_type_details
)
VALUES (
  'DR',
  'DOCTOR'
);

    INSERT INTO Labour_details (
  Work_type_code,
  Work_type_details
)
VALUES (
  'EM',
  'EMPLOYEE'
);

    INSERT INTO Labour_details (
  Work_type_code,
  Work_type_details
)
VALUES (
  'WR',
  'WORKER'
);

    INSERT INTO Labour_details (
  Work_type_code,
  Work_type_details
)
VALUES (
  'SR',
  'SWEEPER'
);

    INSERT INTO Labour_details (
  Work_type_code,
  Work_type_details
)
VALUES (
  'HR',
  'HELPER'
);
```

```
    INSERT INTO Labour_details (
    Work_type_code,
    Work_type_details
)
VALUES (
    'ST',
    'STUDENT'
);

    INSERT INTO Labour_details (
    Work_type_code,
    Work_type_details
)
VALUES (
    'IN',
    'INTERN'
);

    INSERT INTO Labour_details (
    Work_type_code,
    Work_type_details
)
VALUES (
    'PS',
    'PUBLIC SERVANT'
);


INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-1',
    'CR'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-2',
    'NE'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-3',
    'CR'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-4',
    'DR'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-5',
    'EM'
);
```

```
INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-6',
    'WR'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-7',
    'SR'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-8',
    'HR'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-9',
    'ST'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-10',
    'IN'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-11',
    'EM'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-12',
    'WR'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
)
VALUES (
    '784-1234-1234567-13',
    'SR'
);

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
```

```
  )
  VALUES (
    '784-1234-1234567-14',
    'IN'
  );

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
  )
  VALUES (
    '784-1234-1234567-15',
    'EM'
  );

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
  )
  VALUES (
    '784-1234-1234567-16',
    'CR'
  );

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
  )
  VALUES (
    '784-1234-1234567-17',
    'NE'
  );

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
  )
  VALUES (
    '784-1234-1234567-18',
    'SR'
  );

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
  )
  VALUES (
    '784-1234-1234567-19',
    'HR'
  );

INSERT INTO Labour_dept (
    Emirates_ID,
    Work_type_code
  )
  VALUES (
    '784-1234-1234567-20',
    'ST'
  );

INSERT INTO Public_trans_details (
  Vehicle_type_code,
  Vehicle_desc
)
VALUES (
  'AA 100',
  'MINIVAN'
);

INSERT INTO Public_trans_details (
```

```
  Vehicle_type_code,
  Vehicle_desc
)
VALUES (
  'AQ 200',
  'VAN'
);

INSERT INTO Public_trans_details (
  Vehicle_type_code,
  Vehicle_desc
)
VALUES (
  'AB  102',
  'HATCHBACK'
);

INSERT INTO Public_trans_details (
  Vehicle_type_code,
  Vehicle_desc
)
VALUES (
  'BX  534',
  'TRUCK'
);

INSERT INTO Public_trans_details (
  Vehicle_type_code,
  Vehicle_desc
)
VALUES (
  'AZ  234',
  'COUP'
);

INSERT INTO Public_trans_details (
  Vehicle_type_code,
  Vehicle_desc
)
VALUES (
  'BT   789',
  'SUV'
);

INSERT INTO Public_trans_details (
  Vehicle_type_code,
  Vehicle_desc
)
VALUES (
  'AF  421',
  'CUV'
);

INSERT INTO Public_trans_details (
  Vehicle_type_code,
  Vehicle_desc
)
VALUES (
  'AS  535',
  'PICKUP'
);

INSERT INTO Public_trans_details (
  Vehicle_type_code,
  Vehicle_desc
)
VALUES (
  'BC   231',
  'BIKE'
);

INSERT INTO Public_trans_details (
  Vehicle_type_code,
  Vehicle_desc
)
VALUES (
```

```
  'CZ   430',
  'COMPACT'
);


INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
      )
      VALUES (
'784-1234-1234567-1',
'AA 100'
      );

INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
      )
      VALUES (
'784-1234-1234567-2',
'AQ 200'
      );

INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
      )
      VALUES (
'784-1234-1234567-3',
'AB  102'
      );

INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
      )
      VALUES (
'784-1234-1234567-4',
'BX   534'
      );

INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
      )
      VALUES (
'784-1234-1234567-5',
'AZ   234'
      );

INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
      )
      VALUES (
'784-1234-1234567-6',
'BT   789'
      );

INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
      )
      VALUES (
'784-1234-1234567-7',
'AF   421'
      );

INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
      )
      VALUES (
'784-1234-1234567-8',
'AS   535'
```

```
        );

INSERT INTO Public_trans_dept (
 Emirates_ID,
 Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-9',
'BC    231'
        );

INSERT INTO Public_trans_dept (
 Emirates_ID,
 Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-10',
'CZ    430'
        );

INSERT INTO Public_trans_dept (
 Emirates_ID,
 Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-11',
'AQ 200'
        );

INSERT INTO Public_trans_dept (
 Emirates_ID,
 Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-12',
'AB  102'
        );

INSERT INTO Public_trans_dept (
 Emirates_ID,
 Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-13',
'BX   534'
        );

INSERT INTO Public_trans_dept (
 Emirates_ID,
 Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-14',
'AZ   234'
        );

INSERT INTO Public_trans_dept (
 Emirates_ID,
 Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-15',
'BT    789'
        );

INSERT INTO Public_trans_dept (
 Emirates_ID,
 Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-16',
'AA 100'
        );

INSERT INTO Public_trans_dept (
 Emirates_ID,
```

```
Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-17',
'AQ 200'
        );

INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-18',
'AB  102'
        );

INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-19',
'AS   535'
        );

INSERT INTO Public_trans_dept (
Emirates_ID,
Vehicle_type_code
        )
        VALUES (
'784-1234-1234567-20',
'BC    231'
        );


INSERT INTO Test_frequency (
        Priority_num,
        test_freq
    )
    VALUES (
      '1',
      'Once between 5 – 6 weeks.'
    );

INSERT INTO Test_frequency (
        Priority_num,
        test_freq
    )
    VALUES (
      '2',
      'Once between 4-5 weeks.'
    );

INSERT INTO Test_frequency (
        Priority_num,
        test_freq
    )
    VALUES (
      '3',
      'Once in 4 weeks'
    );

INSERT INTO Test_frequency (
        Priority_num,
        test_freq
    )
    VALUES (
      '4',
      'Once in 5 weeks'
    );

INSERT INTO Test_frequency (
        Priority_num,
        test_freq
    )
```

```
    VALUES (
      '5',
      'Once in 3 weeks'
    );

INSERT INTO Test_frequency (
      Priority_num,
      test_freq
    )
    VALUES (
      '6',
      'Once in 3 weeks'
    );

INSERT INTO Test_frequency (
      Priority_num,
      test_freq
    )
    VALUES (
      '7',
      'Once in 2 weeks'
    );

INSERT INTO Test_frequency (
      Priority_num,
      test_freq
    )
    VALUES (
      '10',
      'Once in a week'
    );


INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
      )
      VALUES (
'1',
'AA 100'
      );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
      )
      VALUES (
'2',
'AQ 200'
      );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
      )
      VALUES (
'6',
'BT   789'
      );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
      )
      VALUES (
'7',
'AF   421'
      );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
      )
      VALUES (
'8',
```

```
 'AS   535'
        );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
        )
        VALUES (
 '9',
 'BC    231'
        );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
        )
        VALUES (
 '10',
 'CZ    430'
        );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
        )
        VALUES (
 '12',
 'AB  102'
        );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
        )
        VALUES (
 '14',
 'AZ   234'
        );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
        )
        VALUES (
 '15',
 'BT    789'
        );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
        )
        VALUES (
 '17',
 'AQ 200'
        );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
        )
        VALUES (
 '18',
 'AB  102'
        );

INSERT INTO Transport_priority (
 Priority_ID,
 Vehicle_type_code
        )
        VALUES (
 '20',
 'BC    231'
        );
```

```
INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
)
VALUES (
    '1',
    'EM'
);

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
)
VALUES (
    '2',
    'WR'
);

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
)
VALUES (
    '6',
    'DR'
);

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
)
VALUES (
    '7',
    'EM'
);

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
)
VALUES (
    '8',
    'WR'
);

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
)
VALUES (
    '9',
    'SR'
);

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
)
VALUES (
    '10',
    'HR'
);

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
)
VALUES (
    '11',
    'ST'
);

INSERT INTO Work_Priority (
```

```
    Priority_ID,
    Work_type_code
  )
  VALUES (
    '13',
    'DR'
  );

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
  )
  VALUES (
    '14',
    'EM'
  );

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
  )
  VALUES (
    '15',
    'WR'
  );

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
  )
  VALUES (
    '16',
    'SR'
  );

INSERT INTO Work_Priority (
    Priority_ID,
    Work_type_code
  )
  VALUES (
    '18',
    'ST'
  );

CREATE TABLE H_Priority_List AS
  SELECT h.health_concern_code AS health_cc,
    Immigration_Dept.Emirates_ID AS Emirates_ID,
    Immigration_Dept.Name
  FROM Health_Dept h
    INNER JOIN
    Immigration_Dept ON Immigration_Dept.Emirates_ID =
h.Emirates_ID
  WHERE h.health_concern_code IN (
SELECT Health_concern_code
  FROM Health_Priority
    );


    CREATE TABLE H_Prior1 AS
SELECT H_Priority_List.Emirates_ID AS Emirates_ID,
H_Priority_List.health_cc,
Health_Priority.Priority_ID
  FROM (
  H_Priority_List
  INNER JOIN
  Health_Priority ON H_Priority_List.health_cc =
Health_Priority.Health_concern_code
);
CREATE VIEW H_Prior AS
  SELECT DISTINCT H_Prior1.Emirates_ID AS Emirates_ID,
    Priority.priority_num AS Priority_num
  FROM H_Prior1
    INNER JOIN
  Priority ON H_Prior1.Priority_ID = Priority.Priority_ID
  ORDER BY Priority_num DESC
 ;
```

```
CREATE VIEW T_Prior1 AS
    SELECT Public_trans_dept.Emirates_ID,
Transport_priority.Priority_ID
    FROM
 Public_trans_dept INNER JOIN Transport_priority
 ON
Public_trans_dept.Vehicle_type_code=Transport_priority.Vehic
le_type_code
    ;


  CREATE VIEW T_Prior AS
      SELECT DISTINCT T_Prior1.Emirates_ID AS Emirates_ID,
  Priority.priority_num AS Priority_num
      FROM T_Prior1
  INNER JOIN
      Priority ON T_Prior1.Priority_ID = Priority.Priority_ID
      ORDER BY Priority_num DESC
     ;


CREATE VIEW W_Prior1 AS
    SELECT Labour_dept.Emirates_ID,
Work_Priority.Priority_ID
    FROM
 Labour_dept INNER JOIN Work_Priority
 ON Labour_dept.Work_type_code=
Work_Priority.Work_type_code
    ;


  CREATE VIEW W_Prior AS
      SELECT DISTINCT W_Prior1.Emirates_ID AS Emirates_ID,
  Priority.priority_num AS Priority_num
      FROM W_Prior1
  INNER JOIN
      Priority ON W_Prior1.Priority_ID = Priority.Priority_ID
      ORDER BY Priority_num DESC
     ;


CREATE VIEW CZ_Prior AS
 SELECT DISTINCT Emirates_ID FROM Immigration_Dept
 WHERE Sector IN (SELECT Loc_code FROM Covid_zone);


SELECT * FROM W_Prior;
```