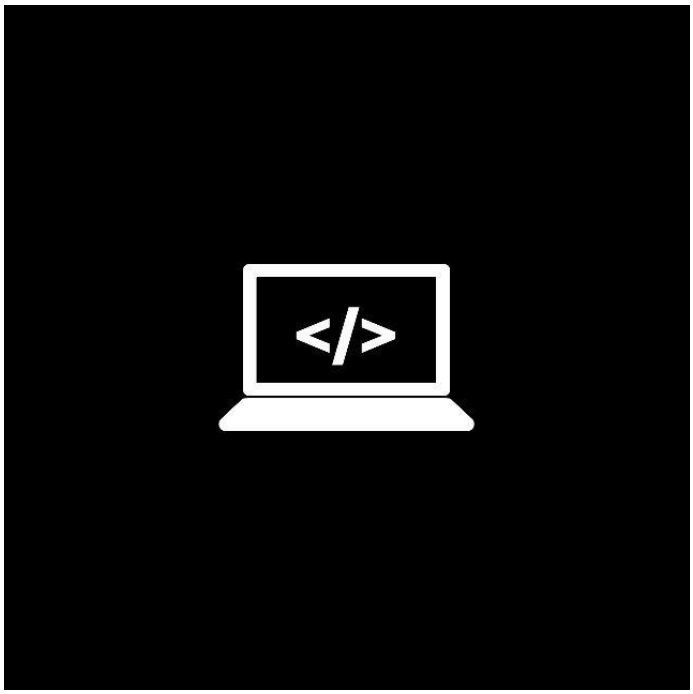

Ankara Yıldırım Beyazıt University

MIS204 Project Assignment

WRISTBANDAPP DATABASE MANAGEMENT SYSTEM

Project Members

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Table Of Contents

RAPOR

Mart 2020'den bu yana içinde bulunduğumuz pandemi tüm insanlığı her açıdan etkilemiştir. Bu durumdan yola çıkarak pandeminin yayılımının kontrol altına alınması için bir mobil uygulama ile entegre bir bileklik tasarladık. WRISTBANDAPP adını verdiğimiz bu uygulama ve ona entegre veritabanı sayesinde ilgili hastaneler tarafından bileklik takılan COVID-19 hastalarının ve temaslılarının belirli bir süre dahilinde konum ve durum bilgisine ulaşmayı hedefledik.

Öncelikle projeye başlarken iş kurallarını belirlemeye karar verdik. Bu iş kurallarında oluşturduğumuz belgelerin ve verilerin ana sınırlarını belirttik , kurallar koyduk. Bu kurallar kapsamında çalışan proje, belirli tablolara ve sözlüklere sahiptir. ER modeli oluşturulacak veritabanı nesneleri arasında ilişki kurarak , nesnelerin özelliklerini ortaya koyar.Bir ER modelinde 3 temel kavram yer alır. Bu kavramlar Varlık(Entity), Nitelik(Attiribute) ve İlişki(Relationship) kavramlarıdır. İlişki şemalarında tablolar arasındaki ilişkileri düzenli bir biçimde göstermek istedik ve kilit noktaları birbirine bağlamak istedik. NF tablolarında ise yabancıl anahtarları ön planda tutarak Veri tabanında veri tekrarlarını ortadan kaldırmak ve veri tutarlılığını (doğruluğunu) artırmak istedik. MS SQL vasıtasıyla tablolar ve veri tiplerini göstermek amacıyla oluşturulan tabloların çıktı kodlarını hazırladık. Projenin amaçlarını göz önünde bulundurarak en işe yarayacak ve gerekli olan sorguları düşündük ve ihtiyaç doğrultusunda hayata geçirdik. Bu sorgularda tablolar arası ilişkiler düşünülerek gerekli verileri bir arada topladık ve kullanıcıların ihtiyaçlarını karşıladık. Tip , format ve kısaltmalarımızın bulunduğu bir veri sözlüğünü tasarladık.

Kısacası proje kapsamında bir bilekliğe ait bileklik veritabanı yönetim sistemi çalışması yapılmıştır. Bu kapsamda ilk olarak bileklik veri tabanı sistemi tasarlamanın önemine değinilmiştir ve iş kurallarından yola çıkarak diagramlar ve tablolar çizilmiştir. Ardından ER Diagramları çizilerek bileşenleri, NF Tabloları, Veri Sözlüğü, İlişki Şemaları çizilmiştir ve gerekli SQL işlemleri MS SQL vasıtasıyla kodlanmıştır. Son olarak sonuçlar yazılarak proje tamamlanmıştır.

DIPNOTE = (Bu ödevi ortaya çıkarırken her gün akşam saat 22:00-23:59 saatleri arasında bütün grup üyelerinin katılımı ve katkısıyla toplandık. Ödevin her aşaması tüm grup üyelerinin katılımıyla gerçekleşmiştir , bireysellikten çok grup çalışması ve dayanışması ön plandadır.)

BUSINESS RULES

1-) The employees in the hospital: doctors, nurses, cleaners, security guards, directors, secretaries.

2-) The hospital_id , region_id, wristband_id are recorded in the hospital management system.

3-) Every hospital has a certain number of wristbands.

4-) There must be more than one hospital in each region.

5-) Each hospital can belong to only one region.

6-) A wristband can only belong to a hospital.

7-) There may be a mutation in a patient. There can be not more than one mutation.

8-) There are 5 different types of mutations in total. These are British, Chinese, Brazilian, South African, Indian.

9-) Each bracelet color shows the patient's situation.

10-) There are 3 colors in the bracelet. Red: sick, yellow: contacted, green represents healthy individuals.

11-) HES Code and wristband id are linked to each other.

12-) There are 7 regions in the regions table.

13-) Each patient's name, surname, region, hospital, variant type, wristband color, examination date and HES code are registered in the system.

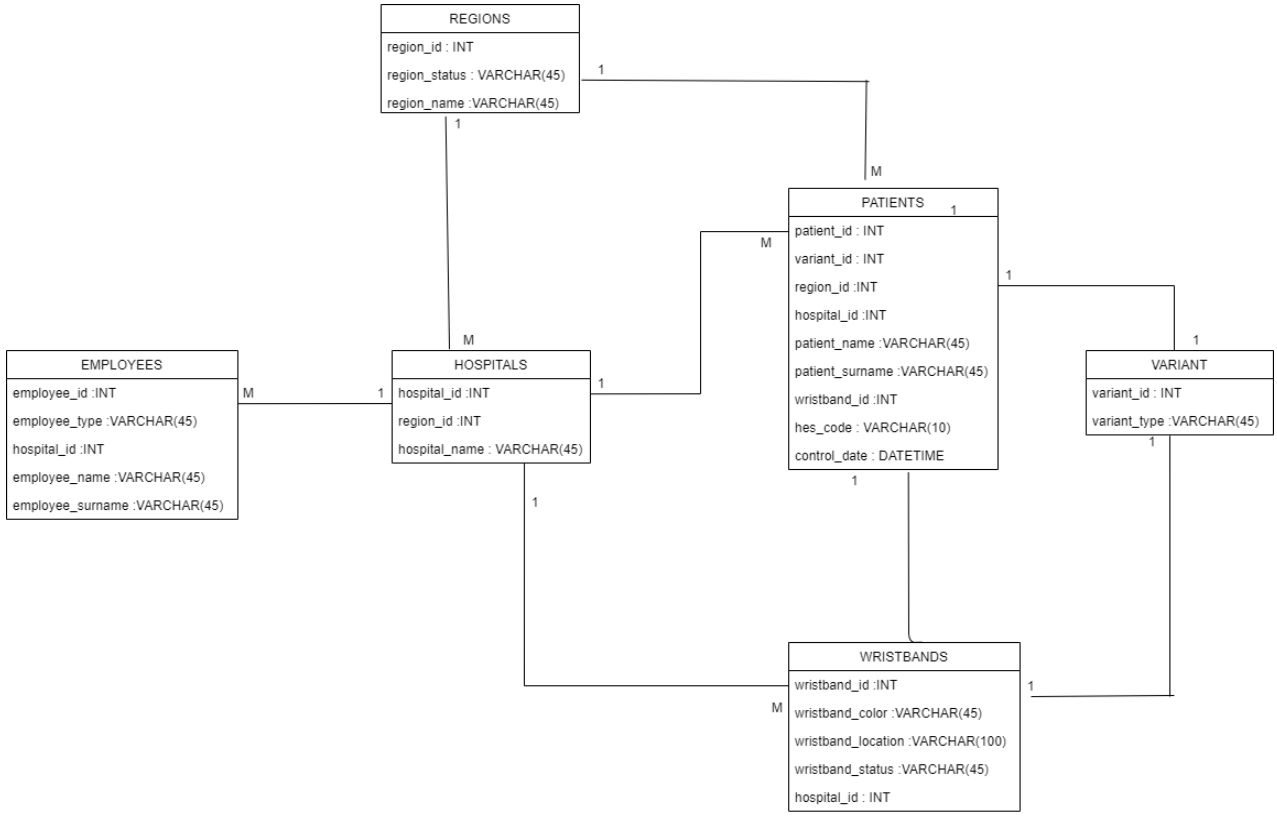
14-) The wristband cannot be removed from the wrist during the quarantine period (14 days).

15-) Hes codes must be 12 digits. (12 characters including hyphens) For example: "ERS7-4P5T-72".

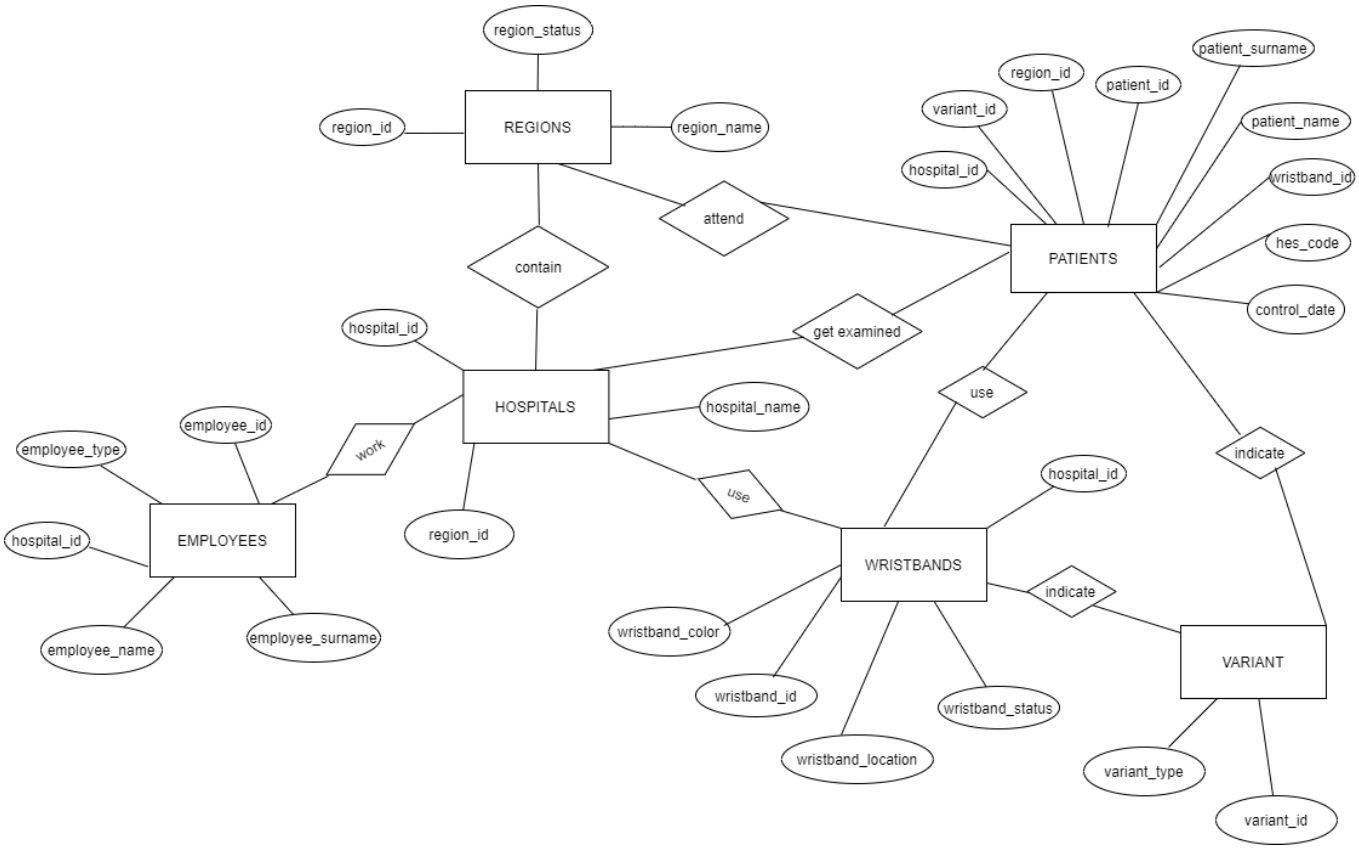
16-) Regions are divided into four as Risky, Medium Risk, Low Risk and Safe according to the Covid risk group based on the number of sick people they host.

17-) The location and the status of the bracelet are obtained from the user of the bracelet.

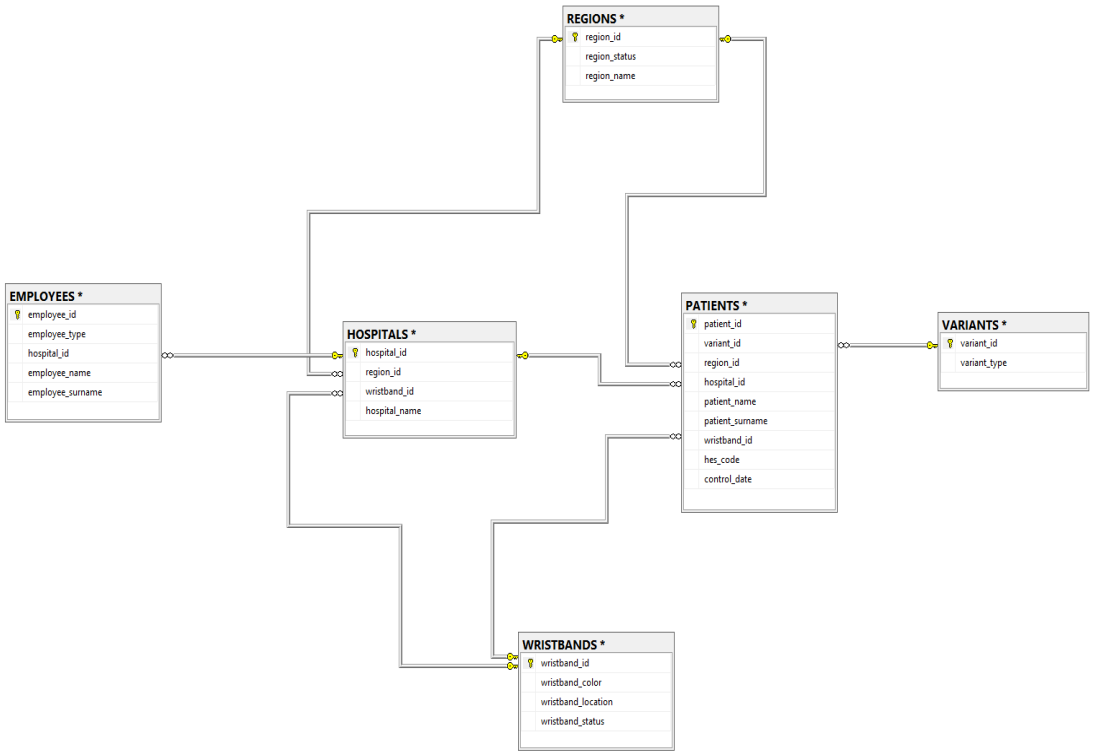
ER MODEL



ERM MODEL



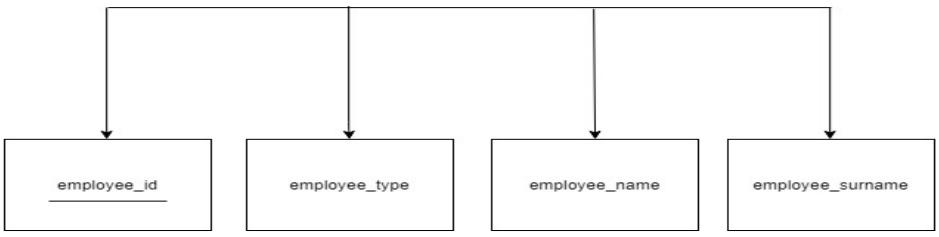
Relationship Schema



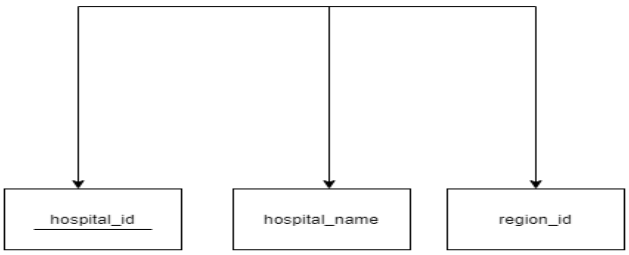
Relationship Schema 2

ENTITY	RELATIONSHIP	CONNECTIVITY	ENTITY
hospital	work	1:M	employee
region	contain	1:M	hospital
region	attend	1:M	patients
patients	use	1:1	wristband
patients	indicate	1:1	variant
variant	indicate	1:1	wristband
hospital	use	1:M	wristband
hospital	get examined	1:M	patients

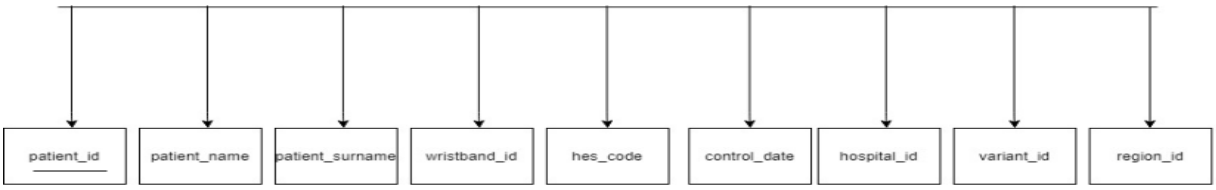
NF Transformation



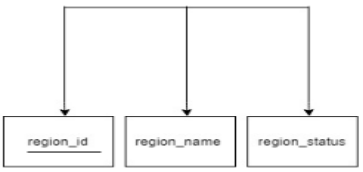
EMPLOYEE: TABLE (employee_id, employee_type, employee_name ,employee_surname)



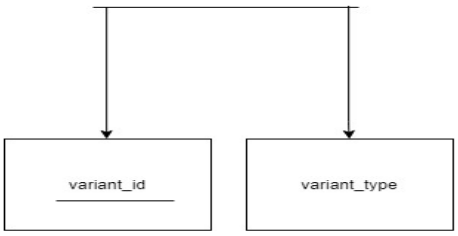
HOSPITAL: TABLE (hospital_id, hospital_name, regon_id



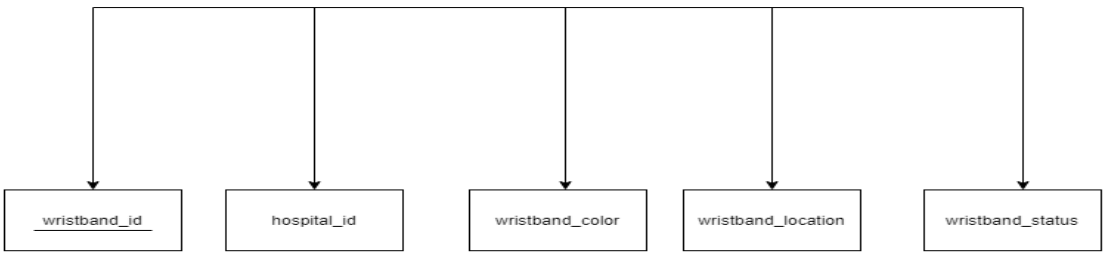
PATIENT:TABLE(patient_id ,patient_name, patient_surname, patient_surname, wristband_id, hes_code, control_date, hospital_id, variant_id, region_id)



REGION:TABLE(region_id, region_name, region_status)



VARIANT: TABLE (variant_id, variant_type)



WRISTBAND: TABLE (wristband_id, hospital_id, wristband_color, wristband_location, wristband_status)

Table Output Code

```
CREATE TABLE REGIONS(
    region_id int Primary Key,
    region_status NVARCHAR(45)
    region_name NVARCHAR(45),
);
SELECT TOP (1000) [region_id]
      ,[region_status]
      ,[region_name]
  FROM [CovidDb].[dbo].[REGIONS]
```

```
CREATE TABLE VARIANTS(
    variant_id int Primary Key,
    variant_type NVARCHAR(45)
);
SELECT TOP (1000) [variant_id]
      ,[variant_type]
  FROM [CovidDb].[dbo].[VARIANTS]
```

```
CREATE TABLE EMPLOYEES(
    employee_id int Primary Key,
    hospital_id int,
    employee_type NVARCHAR(45),
    employee_name NVARCHAR(45),
    employee_surname NVARCHAR(45)   );
SELECT TOP (1000) [employee_id]
      ,[employee_type]
      ,[hospital_id]
      ,[employee_name]
      ,[employee_surname]
FROM [CovidDb].[dbo].[EMPLOYEES]

CREATE TABLE HOSPITALS(
    hospital_id int Primary Key,
    region_id int,
    hospital_name NVARCHAR(45)
);
SELECT TOP (1000) [hospital_id]
      ,[region_id]
      ,[hospital_name]
  FROM [CovidDb].[dbo].[HOSPITALS]
```

```
CREATE TABLE PATIENTS(
    patient_id int Primary Key,
    region_id int,
    variant_id int,
    hospital_id int,
    wristband_id int,
    patient_name NVARCHAR(45),
    patient_surname NVARCHAR(45),
    hes_code NVARCHAR(12),
    control_date TIMESTAMP
);
SELECT TOP (1000) [patient_id]
      ,[variant_id]
      ,[region_id]
      ,[hospital_id]
      ,[patient_name]
      ,[patient_surname]
      ,[wristband_id]
      ,[hes_code]
      ,[control_date]
  FROM [CovidDb].[dbo].[PATIENTS]
```

```
CREATE TABLE WRISTBANDS(
    wristband_id int Primary Key,
    wristband_color NVARCHAR(45),
    hospital_id int,
    wristband_location NVARCHAR(100),
    wristband_status NVARCHAR(45),
);
SELECT TOP (1000) [wristband_id]
      ,[wristband_color]
      ,[wristband_location]
      ,[wristband_status]
      ,[hospital_id]
  FROM [CovidDb].[dbo].[WRISTBANDS]
```

SQL QUERIES

1-)

```
SELECT HOSPITALS.hospital_id, PATIENTS.patient_name, PATIENTS.patient_surname, HOSPITALS.hospital_name, PATIENTS.hes_code, PATIENTS.control_date
FROM PATIENTS
INNER JOIN HOSPITALS
ON PATIENTS.hospital_id=HOSPITALS.hospital_id;
```

146 %

Results | Messages

	hospital_id	patient_name	patient_surname	hospital_name	hes_code	control_date
1	1	Zeki	Yildiz	Lokman Hekim Hospital	R492-A742-32	2021-03-04
2	1	Hasan	Gürbüz	Lokman Hekim Hospital	M231-F211-23	2021-11-03
3	1	Melisa	Aydoğdu	Lokman Hekim Hospital	J212-J373-12	2021-05-02
4	1	Alper	Alsancak	Lokman Hekim Hospital	K231-D123-45	2021-01-02
5	1	Asena	Aslanhan	Lokman Hekim Hospital	I523-A721-54	2021-07-09
6	5	Maslak	Bayrak	Onatkan Hospital	D3D4-GS22-12	2021-11-20
7	5	Mansur	Oklava	Onatkan Hospital	D3D6-GS32-12	2021-01-20
8	5	Tayyip	Kamca	Onatkan Hospital	D3D5-GS42-12	2021-09-20
9	5	Kazım	Barajcı	Onatkan Hospital	D3D4-GS52-12	2021-08-20
10	5	Cihan	Mezarcı	Onatkan Hospital	D3D9-GS62-12	2021-05-20
11	6	Ercüment	Çözer	Medipol Hospital	D3S5-GS72-12	2021-01-20
12	6	Hasan	Baklavacı	Medipol Hospital	D362-GS82-12	2021-03-20
13	6	Esra	Sancak	Medipol Hospital	D3D2-GS12-12	2021-05-20
14	6	Maslak	Bayrak	Medipol Hospital	D3D4-GS22-12	2021-11-20
15	6	Mansur	Oklava	Medipol Hospital	D3D6-GS32-12	2021-01-20
16	7	Tayyip	Kamca	Bahçeşehir Hospital	D3D5-GS42-12	2021-09-20
17	7	Kazım	Barajcı	Bahçeşehir Hospital	D3D4-GS52-12	2021-08-20
18	7	Cihan	Mezarcı	Bahçeşehir Hospital	D3D9-GS62-12	2021-05-20
19	7	Ercüment	Çözer	Bahçeşehir Hospital	D3S5-GS72-12	2021-01-20
20	7	Hasan	Baklavacı	Bahçeşehir Hospital	D362-GS82-12	2021-03-20
21	5	Ercüment	Çözer	Onatkan Hospital	D3S5-GS72-12	2021-01-20
22	5	Hasan	Baklavacı	Onatkan Hospital	D362-GS82-12	2021-03-20
23	8	Ahmet	Bayındır	Numune Hospital	FG32-AS32-15	2021-05-20
24	8	Ali	Sekman	Numune Hospital	FG32-BS32-16	2021-11-21
25	8	Beyza	Altıngöz	Numune Hospital	FG32-CS32-17	2021-01-21
26	8	Serdar	Kuzuloğlu	Numune Hospital	FG32-DS32-18	2021-09-22

2-)

```
SELECT HOSPITALS.hospital_id, PATIENTS.patient_name, PATIENTS.patient_surname, HOSPITALS.hospital_name, PATIENTS.hes_code, PATIENTS.control_date
FROM PATIENTS
INNER JOIN HOSPITALS
ON PATIENTS.hospital_id=HOSPITALS.hospital_id;
```

146 %

Results | Messages

	hospital_id	patient_name	patient_surname	hospital_name	hes_code	control_date
1	1	Zeki	Yildiz	Lokman Hekim Hospital	R492-A742-32	2021-03-04
2	1	Hasan	Gürbüz	Lokman Hekim Hospital	M231-F211-23	2021-11-03
3	1	Melisa	Aydoğdu	Lokman Hekim Hospital	J212-J373-12	2021-05-02
4	1	Alper	Alsancak	Lokman Hekim Hospital	K231-D123-45	2021-01-02
5	1	Asena	Aslanhan	Lokman Hekim Hospital	I523-A721-54	2021-07-09
6	5	Maslak	Bayrak	Onatkan Hospital	D3D4-GS22-12	2021-11-20
7	5	Mansur	Oklava	Onatkan Hospital	D3D6-GS32-12	2021-01-20
8	5	Tayyip	Kamca	Onatkan Hospital	D3D5-GS42-12	2021-09-20
9	5	Kazım	Barajcı	Onatkan Hospital	D3D4-GS52-12	2021-08-20
10	5	Cihan	Mezarcı	Onatkan Hospital	D3D9-GS62-12	2021-05-20
11	6	Ercüment	Çözer	Medipol Hospital	D3S5-GS72-12	2021-01-20
12	6	Hasan	Baklavacı	Medipol Hospital	D362-GS82-12	2021-03-20
13	6	Esra	Sancak	Medipol Hospital	D3D2-GS12-12	2021-05-20
14	6	Maslak	Bayrak	Medipol Hospital	D3D4-GS22-12	2021-11-20
15	6	Mansur	Oklava	Medipol Hospital	D3D6-GS32-12	2021-01-20
16	7	Tayyip	Kamca	Bahçeşehir Hospital	D3D5-GS42-12	2021-09-20
17	7	Kazım	Barajcı	Bahçeşehir Hospital	D3D4-GS52-12	2021-08-20
18	7	Cihan	Mezarcı	Bahçeşehir Hospital	D3D9-GS62-12	2021-05-20
19	7	Ercüment	Çözer	Bahçeşehir Hospital	D3S5-GS72-12	2021-01-20
20	7	Hasan	Baklavacı	Bahçeşehir Hospital	D362-GS82-12	2021-03-20
21	5	Ercüment	Çözer	Onatkan Hospital	D3S5-GS72-12	2021-01-20
22	5	Hasan	Baklavacı	Onatkan Hospital	D362-GS82-12	2021-03-20
23	8	Ahmet	Bayındır	Numune Hospital	FG32-AS32-15	2021-05-20
24	8	Ali	Sekman	Numune Hospital	FG32-BS32-16	2021-11-21
25	8	Beyza	Altıngöz	Numune Hospital	FG32-CS32-17	2021-01-21
26	8	Serdar	Kuzuloğlu	Numune Hospital	FG32-DS32-18	2021-09-22

3-)

```
SELECT PATIENTS.patient_name, PATIENTS.patient_surname,
PATIENTS.wristband_id,  VARIANTS.variant_type
FROM PATIENTS
INNER JOIN VARIANTS
ON PATIENTS.variant_id = VARIANTS.variant_id;
```

146 %

Results | Messages

	patient_name	patient_surname	wristband_id	variant_type
1	Zeki	Yıldız	1	China
2	Hasan	Gürbüz	2	Brasil
3	Melisa	Aydoğdu	3	South Africa
4	Alper	Alsancak	4	England
5	Asena	Aslanhan	5	India
6	Tuğba	Yurt	6	China
7	Sadık	Kalmaz	7	Brasil
8	Saniye	Kumaz	8	South Africa
9	Burak	Pekmez	9	England
10	Mustafa	Saatçi	10	India
11	Selin	Balcı	11	China
12	Nazife	Demirci	12	Brasil
13	Ahmet	Çakar	13	South Africa
14	Rasim	Demir	14	England
15	Kemal	Köroğlu	15	India
16	Mahmut	Tekdemir	16	China
17	Recep	Selman	17	Brasil
18	Defne	Falcıoğlu	18	South Africa
19	Mehmet	Gürsoy	19	England
20	Esra	Sancak	21	India
21	Maslak	Bayrak	22	China
22	Mansur	Oklava	23	Brasil
23	Tayyip	Kannca	24	South Africa
24	Kazım	Barajcı	25	England
25	Cihan	Mezarcı	26	India
26	Ercüment	Çözer	27	China
27	Hasan	Baklavacı	28	Brasil
28	Esra	Sancak	21	South Africa
29	Maslak	Bayrak	22	England
30	Mansur	Oklava	23	India
31	Tayyip	Kannca	24	China
32	Kazım	Barajcı	25	Brasil
33	Cihan	Mezarcı	26	South Africa
34	Ercüment	Çözer	27	England
35	Hasan	Baklavacı	28	India
36	Esra	Sancak	21	India
37	Maslak	Bayrak	22	China
38	Mansur	Oklava	23	Brasil

4-)

```
SELECT PATIENTS.patient_name, PATIENTS.patient_surname,
PATIENTS.wristband_id,  VARIANTS.variant_type
FROM PATIENTS
INNER JOIN VARIANTS
ON PATIENTS.variant_id = VARIANTS.variant_id;
```

146 %

Results | Messages

	patient_name	patient_surname	wristband_id	variant_type
1	Zeki	Yıldız	1	China
2	Hasan	Gürbüz	2	Brasil
3	Melisa	Aydoğdu	3	South Africa
4	Alper	Alsancak	4	England
5	Asena	Aslanhan	5	India
6	Tuğba	Yurt	6	China
7	Sadık	Kalmaz	7	Brasil
8	Saniye	Kumaz	8	South Africa
9	Burak	Pekmez	9	England
10	Mustafa	Saatçi	10	India
11	Selin	Balcı	11	China
12	Nazife	Demirci	12	Brasil
13	Ahmet	Çakar	13	South Africa
14	Rasim	Demir	14	England
15	Kemal	Köroğlu	15	India
16	Mahmut	Tekdemir	16	China
17	Recep	Selman	17	Brasil
18	Defne	Falcıoğlu	18	South Africa
19	Mehmet	Gürsoy	19	England
20	Esra	Sancak	21	India
21	Maslak	Bayrak	22	China
22	Mansur	Oklava	23	Brasil
23	Tayyip	Karınca	24	South Africa
24	Kazım	Barajcı	25	England
25	Cihan	Mezarcı	26	India
26	Ercüment	Çözer	27	China
27	Hasan	Baklavacı	28	Brasil
28	Esra	Sancak	21	South Africa
29	Maslak	Bayrak	22	England
30	Mansur	Oklava	23	India
31	Tayyip	Karınca	24	China
32	Kazım	Barajcı	25	Brasil
33	Cihan	Mezarcı	26	South Africa
34	Ercüment	Çözer	27	England
35	Hasan	Baklavacı	28	India
36	Esra	Sancak	21	India
37	Maslak	Bayrak	22	China
38	Mansur	Oklava	23	Brasil

5-)

```
SELECT WRISTBANDS.wristband_id, HOSPITALS.hospital_name
FROM WRISTBANDS
INNER JOIN HOSPITALS
ON WRISTBANDS.hospital_id = HOSPITALS.hospital_id;
```

146 %

Results | Messages

	wristband_id	hospital_name
1	1	Lokman Hekim Hospital
2	5	Onatkan Hospital
3	6	Medipol Hospital
4	7	Bahçeşehir Hospital

6-)

SQLQuery7.sql - U...ULUSAN\emre_ (55))* | SQLQuery6.sql - U...ULUSAN\emre_ (52)) | SQLQuery5.sql - U...ULUSAN\emre_ (51)) | SQLQuery4.sql - U...ULUSAN\emre_ (75)) | SQLQuery

```
SELECT EMPLOYEES.employee_id, employee_name,employee_surname, employee_type,
HOSPITALS.hospital_name
FROM EMPLOYEES
INNER JOIN HOSPITALS
ON EMPLOYEES.hospital_id = HOSPITALS.hospital_id;
```

146 %

Results | Messages

	employee_id	employee_name	employee_surname	employee_type	hospital_name
1	1	Prof. Dr. Gazi	Yaşargil	Doctor	Lokman Hekim Hospital
2	2	Münci	Kalayoğlu	Nurse	Lokman Hekim Hospital
3	3	Ömer	Özkan	Housekeeper	Lokman Hekim Hospital
4	4	Murat	Digiçaylıoğlu	Guard	Lokman Hekim Hospital
5	5	Hande	Özdinler	Manager	Lokman Hekim Hospital
6	6	Murat	Günel	Secretary	Lokman Hekim Hospital
7	7	Hasan	Mezarcı	Doctor	Lokman Hekim Hospital
8	8	Mert	Yılmaz	Doctor	Lokman Hekim Hospital
9	9	Kardelen	Demir	Nurse	Lokman Hekim Hospital
10	10	Meltem	Duruk	Housekeeper	Lokman Hekim Hospital
11	11	Batuhan	Büyük	Guard	Lokman Hekim Hospital
12	12	Peyker	Koca	Manager	Lokman Hekim Hospital
13	13	Mustafa	Öz	Secretary	Lokman Hekim Hospital

7-)

```
SELECT PATIENTS.patient_name,
PATIENTS.patient_surname,
PATIENTS.wristband_id, VARIANTS.variant_type
FROM PATIENTS
INNER JOIN VARIANTS
ON PATIENTS.variant_id = VARIANTS.variant_id;
```

146 %

Results | Messages

	patient_name	patient_surname	wristband_id	variant_type
1	Zeki	Yıldız	1	China
2	Hasan	Gürbüz	2	Brasil
3	Melisa	Aydoğdu	3	South Africa
4	Alper	Alsancak	4	England
5	Asena	Aslanhan	5	India
6	Tuğba	Yurt	6	China
7	Sadık	Kalmaz	7	Brasil
8	Saniye	Kumaz	8	South Africa
9	Burak	Pekmez	9	England
10	Mustafa	Saatçi	10	India
11	Selin	Balcı	11	China
12	Nazife	Demirci	12	Brasil
13	Ahmet	Çakar	13	South Africa
14	Rasim	Demir	14	England
15	Kemal	Köroğlu	15	India
16	Mahmut	Tekdemir	16	China
17	Recep	Selman	17	Brasil
18	Defne	Falcıoğlu	18	South Africa
19	Mehmet	Gürsoy	19	England
20	Esra	Sancak	21	India
21	Maslak	Bayrak	22	China
22	Mansur	Oklava	23	Brasil
23	Tayyip	Kannca	24	South Africa
24	Kazım	Barajcı	25	England
25	Cihan	Mezarcı	26	India
26	Ercüment	Çözer	27	China
27	Hasan	Baklavacı	28	Brasil
28	Esra	Sancak	21	South Africa
29	Maslak	Bayrak	22	England
30	Mansur	Oklava	23	India
31	Tayyip	Kannca	24	China
32	Kazım	Barajcı	25	Brasil
33	Cihan	Mezarcı	26	South Africa

8-)

```
SELECT HOSPITALS.hospital_id, PATIENTS.patient_name,
PATIENTS.patient_surname, HOSPITALS.hospital_name,
PATIENTS.hes_code, PATIENTS.control_date
FROM PATIENTS
INNER JOIN HOSPITALS
ON PATIENTS.hospital_id=HOSPITALS.hospital_id;
```

146 %

Results | Messages

	hospital_id	patient_name	patient_surname	hospital_name	hes_code	control_date
1	1	Zeki	Yıldız	Lokman Hekim Hospital	R482-A742-32	2021-03-04
2	1	Hasan	Gürbüz	Lokman Hekim Hospital	M231-F211-23	2021-11-03
3	1	Melisa	Aydoğdu	Lokman Hekim Hospital	J212-J373-12	2021-05-02
4	1	Alper	Alsancak	Lokman Hekim Hospital	K231-D123-45	2021-01-02
5	1	Asena	Aslanhan	Lokman Hekim Hospital	I923-A721-54	2021-07-09
6	5	Maslak	Bayrak	Onatkan Hospital	D3D4-GS22-12	2021-11-20
7	5	Mansur	Oklava	Onatkan Hospital	D3D6-GS32-12	2021-01-20
8	5	Tayyip	Kannca	Onatkan Hospital	D3DS-GS42-12	2021-09-20
9	5	Kazım	Barajcı	Onatkan Hospital	D3D4-GS52-12	2021-08-20
10	5	Cihan	Mezarcı	Onatkan Hospital	D3D9-GS62-12	2021-05-20
11	6	Ercüment	Çözer	Medipol Hospital	D3S5-GS72-12	2021-01-20
12	6	Hasan	Baklavacı	Medipol Hospital	D362-GS82-12	2021-03-20
13	6	Esra	Sancak	Medipol Hospital	D3D2-GS12-12	2021-05-20
14	6	Maslak	Bayrak	Medipol Hospital	D3D4-GS22-12	2021-11-20
15	6	Mansur	Oklava	Medipol Hospital	D3D6-GS32-12	2021-01-20
16	7	Tayyip	Kannca	Bahçeşehir Hospital	D3DS-GS42-12	2021-09-20
17	7	Kazım	Barajcı	Bahçeşehir Hospital	D3D4-GS52-12	2021-08-20
18	7	Cihan	Mezarcı	Bahçeşehir Hospital	D3D9-GS62-12	2021-05-20
19	7	Ercüment	Çözer	Bahçeşehir Hospital	D3S5-GS72-12	2021-01-20
20	7	Hasan	Baklavacı	Bahçeşehir Hospital	D362-GS82-12	2021-03-20
21	5	Ercüment	Çözer	Onatkan Hospital	D3S5-GS72-12	2021-01-20
22	5	Hasan	Baklavacı	Onatkan Hospital	D362-GS82-12	2021-03-20
23	8	Ahmet	Bayındır	Numune Hospital	FG32-AS32-15	2021-05-20
24	8	Ali	Sekman	Numune Hospital	FG32-BS32-16	2021-11-21
25	8	Beyza	Altıngöz	Numune Hospital	FG32-CS32-17	2021-01-21
26	8	Serdar	Kuzuloğlu	Numune Hospital	FG32-DS32-18	2021-09-22
27	8	Derya	Kendirci	Numune Hospital	FG32-ES32-19	2021-08-23
28	9	Ekrem	Duman	Ankara Hospital	FG32-FS32-20	2021-05-24

9-)

ULUSAN.CovidDb - dbo.PATIENTS | SQLQuery2.sql - U...ULUSAN\emre_ (57)) | SQLQuery9.sql - U...ULUSAN\emre_ (51))*

```
INSERT INTO dbo.PATIENTS (
patient_name ,
patient_surname,
hes_code,
control_date,
region_id ,
hospital_id ,
wristband_id,
variant_id)
VALUES ('Ahmet','Bayındır','FG99-AS21-15','2021-05-20',1,2,3,4);
```

121 %

Messages

```
(1 row affected)

Completion time: 2021-05-25T23:15:28.2754797+03:00
```

10-)

ULUSAN.CovidDb - dbo.EMPLOYEES | ULUSAN.CovidDb - dbo.PATIENTS | SQLQuery2.sql -

```
SELECT * FROM EMPLOYEES
WHERE employee_name LIKE 'm%' ;
```

121 %

Results | Messages

	employee_id	employee_type	hospital_id	employee_name	employee_surname
1	2	Nurse	1	Münci	Kalayoğlu
2	4	Guard	1	Murat	Digiçaylığlu
3	6	Secretary	1	Murat	Günel
4	8	Doctor	1	Mert	Yılmaz
5	10	Housekeeper	1	Meltem	Duruk
6	13	Secretary	1	Mustafa	Öz

11-)

```
UPDATE PATIENTS
SET patient_name='Ahmet ',
patient_surname='Simit',
hes_code='T579-212R-R2',
control_date='2021-04-21',
region_id= '3',
hospital_id= '9',
wristband_id= '42',
variant_id= '5'
WHERE patient_id=73;
```

161 %

Messages

```
(1 row affected)

Completion time: 2021-05-25T23:08:40.5326141+03:00
```

12-)

SQLQuery9.sql - U...ULUSAN\emre_ (51))*

```
SELECT COUNT(PATIENTS.patient_id), region_id
FROM PATIENTS
GROUP BY region_id
HAVING COUNT(PATIENTS.patient_id) > 5;
```

146 %

Results | Messages

	(No column name)	region_id
1	15	1
2	15	2
3	15	3
4	11	4
5	7	5

13-)

ULUSAN.CovidDb - dbo.PATIENTS | SQLQuery2.sql - U...ULUSAN\emre_ (57)) | SQLQuery9.sql - U...ULUSAN\emre_ (51))*

```
INSERT INTO dbo.PATIENTS (
patient_name ,
patient_surname,
hes_code,
control_date,
region_id ,
hospital_id ,
wristband_id,
variant_id)
VALUES ('Ahmet','Bayındır','FG99-AS21-15','2021-05-20',1,2,3,4);
```

121 %

Messages

```
(1 row affected)

Completion time: 2021-05-25T23:14:14.1970554+03:00
```

14-)

ULUSAN.CovidDb - dbo.PATIENTS | SQLQuery2.sql - U...ULUSAN\emre_ (57)) | SQLQuery9.sql - U...ULUSAN\emre_ (51))*

```
INSERT INTO dbo.PATIENTS (
patient_name ,
patient_surname,
hes_code,
control_date,
region_id ,
hospital_id ,
wristband_id,
variant_id)
VALUES ('Ahmet','Bayındır','FG99-AS21-15','2021-05-20',1,2,3,4);
```

121 %

Messages

```
(1 row affected)

Completion time: 2021-05-25T23:14:14.1970554+03:00
```

15-)

ULUSAN.CovidDb - dbo.PATIENTS | SQLQuery2.sql - U...ULUSAN\emre_ (57)) | SQLQuery9.sql - U...ULUSAN\emre_ (51))*

```
SELECT * FROM PATIENTS
WHERE control_date BETWEEN '2021-01-26' AND '2021-05-25'
ORDER BY control_date DESC;
```

121 %

Results | Messages

	patient_id	patient_name	patient_surname	hes_code	control_date	region_id	hospital_id	wristband_id	variant_id
1	49	Ekrem	Duman	FG32-FS32-20	2021-05-24	2	9	33	1
2	64	Ekrem	Duman	FG32-FS32-20	2021-05-24	2	9	33	1
3	8	Saniye	Kumaz	K231-F213-51	2021-05-21	2	2	8	3
4	18	Defne	Falcıoğlu	D1S1-GH32-45	2021-05-20	4	4	18	3
5	19	Mehmet	Gürsoy	D3D2-GS52-12	2021-05-20	4	4	19	4
6	20	Esra	Sancak	D3D2-GS12-12	2021-05-20	4	4	21	5
7	25	Cihan	Mezarcı	D3D9-GS62-12	2021-05-20	5	5	26	5
8	44	Ahmet	Bayındır	FG32-AS32-15	2021-05-20	1	8	28	1
9	59	Ahmet	Bayındır	FG32-AS32-15	2021-05-20	1	8	28	1
10	36	Esra	Sancak	D3D2-GS12-12	2021-05-20	4	4	21	5
11	41	Cihan	Mezarcı	D3D9-GS62-12	2021-05-20	4	4	26	5
12	28	Esra	Sancak	D3D2-GS12-12	2021-05-20	6	6	21	3
13	33	Cihan	Mezarcı	D3D9-GS62-12	2021-05-20	7	7	26	3
14	16	Mahmut	Tekdemir	M1GK-1M32-98	2021-05-19	4	4	16	1
15	17	Recep	Selman	B1N1-TJ32-12	2021-05-19	4	4	17	2
16	15	Kemal	Köroğlu	D1G3-F1K2-32	2021-05-18	3	3	15	5
17	13	Ahmet	Çakar	G5H6-123H-32	2021-05-17	3	3	13	3
18	14	Rasim	Demir	GS32-H5KL-87	2021-05-17	3	3	14	4
19	12	Nazife	Demirci	P1G2-H489-12	2021-05-16	3	3	12	2
20	11	Selin	Balcı	S421-D125-92	2021-05-15	3	3	11	1
21	3	Melisa	Aydoğdu	J212-J373-12	2021-05-02	1	1	3	3
22	73	Ahmet	Simit	T579-212R-R2	2021-04-21	3	9	42	5
23	10	Mustafa	Saatçi	K284-R421-53	2021-04-12	2	2	10	5
24	53	Sedat	Teker	FG32-JS32-14	2021-03-26	2	9	37	5
25	68	Sedat	Teker	FG32-JS32-14	2021-03-26	2	9	37	5
26	66	Asuman	Derdiyok	FG32-HS32-22	2021-03-25	2	9	35	3
27	51	Asuman	Derdiyok	FG32-HS32-22	2021-03-25	2	9	35	3
28	9	Burak	Pekmez	O212-R213-23	2021-03-24	2	2	9	4
29	56	İsmet	Akbaba	FG32-MS32-14	2021-03-21	3	9	40	3
30	71	İsmet	Akbaba	FG32-MS32-14	2021-03-21	3	9	40	3
31	43	Hasan	Baklavacı	D362-GS82-12	2021-03-20	5	5	28	2
32	35	Hasan	Baklavacı	D362-GS82-12	2021-03-20	7	7	28	5
33	27	Hasan	Baklavacı	D362-GS82-12	2021-03-20	6	6	28	2
34	58	Eda	Ersoy	FG32-OS32-14	2021-03-19	3	9	42	5
35	7	Sadık	Kalmaz	S231-G123-65	2021-03-05	2	2	7	2
36	1	Zeki	Yıldız	R482-A742-32	2021-03-04	1	1	1	1
37	6	Tuğba	Yurt	K123-G123-53	2021-02-21	2	2	6	1
38	55	Harun	Can	FG32-LS32-14	2021-01-28	3	9	39	2
39	70	Harun	Can	FG32-LS32-14	2021-01-28	3	9	39	2
40	67	Sema	Koyuncu	FG32-HI32-23	2021-01-26	2	9	36	4
41	52	Sema	Koyuncu	FG32-HI32-23	2021-01-26	2	9	36	4

16-)

SQLQuery1.sql - U...ULUSAN\emre_ (53))* | ULUSAN.CovidDb - dbo.HOSPITALS | ULUSAN.CovidDb - dbo.EMPLOYEES

```
SELECT HOSPITALS.region_id,
EMPLOYEES.employee_id,
employee_name,
employee_surname,
employee_type
FROM EMPLOYEES
INNER JOIN HOSPITALS
ON EMPLOYEES.hospital_id = HOSPITALS.hospital_id;
```

120 %

Results | Messages

	region_id	employee_id	employee_name	employee_surname	employee_type
1	1	1	Prof. Dr. Gazi	Yaşargil	Doctor
2	1	2	Münci	Kalayoğlu	Nurse
3	1	3	Ömer	Özkan	Housekeeper
4	1	4	Murat	Digiçaylığlu	Guard
5	1	5	Hande	Özdinler	Manager
6	1	6	Murat	Günel	Secretary
7	1	7	Hasan	Mezarcı	Doctor
8	1	8	Mert	Yılmaz	Doctor
9	1	9	Kardelen	Demir	Nurse
10	1	10	Meltem	Duruk	Housekeeper
11	1	11	Batuhan	Büyük	Guard
12	1	12	Peyker	Koca	Manager
13	1	13	Mustafa	Öz	Secretary

DATA DICTIONARY

NAME OF TABLES	QUALIFICATION	CONTENT	TYPE	FORMAT	NECESSITY	FORMAT
WRISTBANDS	wristband_id	code of wristbands	int		E	PK
	wristband_color	color of wristbands	varchar(45)		E	
	hospital_id	code of hospital	int		E	
	wristband_location	location of wristbands	varchar(100)		E	
	wristband_status	status of wristbands	varchar(45)		E	
PATIENTS	patient_id	code of patients	int		E	PK
	region_id	code of regions	int		E	
	variant_id	code of variants	int		E	
	hospital_id	code of hospital	int		E	
	patient_name	name of patient	varchar(45)		E	
	patient_surname	surname of patients	varchar(45)		E	
	wristband_id	code of wristband	int		E	
	hes_code	HES code	varchar(10)	XXXXXXXXXX	E	
	control_date	date of control	datetime	YYYY-AA-GG	E	
HOSPITALS	hospital_id	code of hospital	int		E	PK
	region_id	code of regions	int		E	
	hospital_name	name of hospital	varchar(45)		E	
EMPLOYEES	employee_id	code of employee	int		E	PK
	employee_type	type of employee	varchar(45)		E	
	hospital_id	code of hospital	int		E	
	employee_name	name of employees	varchar(45)		E	
	employee_surname	surname of employees	varchar(45)		E	
REGIONS	region_id	code of regions	int		E	PK
	region_status	status of reions	varchar(45)		E	
	region_name	name of regions	varchar(45)		E	
VARIANTS	variant_id	code of variants	int		E	
	variant_type	type of variants	varchar(45)		E	