ĐỀ TIÊN ĐOÁN PE DBI202 SPRING 2024 , DỰA TRÊN DATABASE CỦA KÌ NÀY VÀ FORM CÂU HỎI ALL KÌ TRƯỚC.
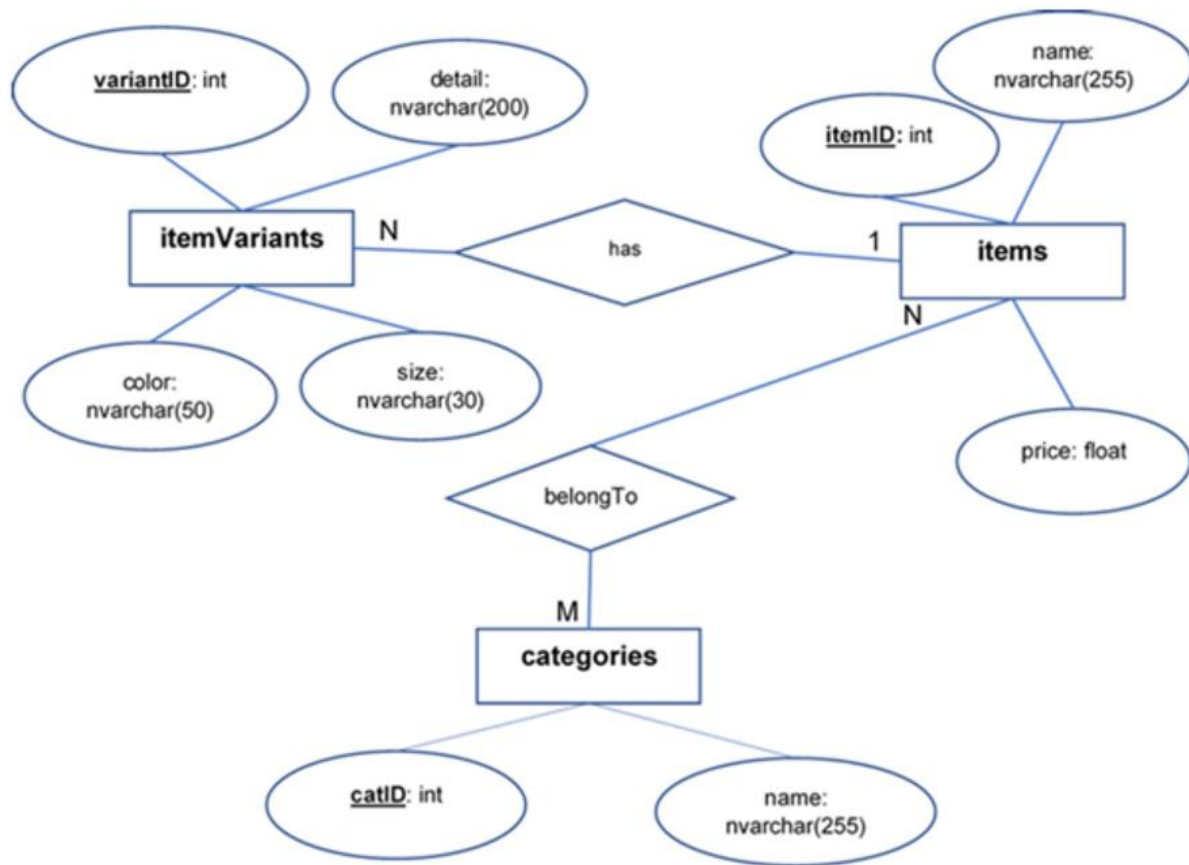
Người soạn : Trần Quốc Tuấn

Question 1:

Create one database and then write SQL statements to create, in this database, all tables

derived from the ERD given in the following picture with appropriate attributes, primary keys

and foreign keys,

NOTE that when creating the SQL commands as request, you MUST keep the name of

tables, relationship, attributes and data type of attributes as SAME as given in the given

ERD

Attributes with underline belong to the primary Key Of each entity.

Attributes which reference to the primary key of another table must have the same name as

the attributes in the primary key of the referencing table.

When submitting the responses for this question, submit only SQL statements for creating

tables With corresponding keys and foreign keys. DO not use "create database", "Alter

database", "use database_name" or any statements using database's name in your

submission.

Question 2:

Select all flights with a departure time in Feb 2023

	id	airline_id	departing_airport	arriving_airport	departing_gate	arriving_gate	departure_time	arrival_time
1	27	16	8	19	2D	2C	2023-02-22 07:47:08.000	2023-02-22 17:23:08.000
2	85	13	1	10	2D	1C	2023-02-20 16:21:31.000	2023-02-21 04:57:31.000
3	124	1	18	12	2D	2B	2023-02-16 19:27:57.000	2023-02-17 08:20:57.000
4	132	10	13	19	1D	2E	2023-02-26 23:02:10.000	2023-02-27 08:38:10.000
5	137	5	12	2	2C	2F	2023-02-23 21:34:09.000	2023-02-24 05:11:09.000
6	184	18	4	16	2D	1B	2023-02-23 09:05:18.000	2023-02-23 17:02:18.000
7	227	10	19	4	1C	2E	2023-02-26 16:06:23.000	2023-02-27 01:42:23.000
8	238	7	15	20	1D	2F	2023-02-17 05:45:17.000	2023-02-17 13:20:17.000
9	276	19	19	1	2B	2F	2023-02-19 01:49:41.000	2023-02-19 11:25:41.000
10	277	14	1	5	1C	1C	2023-02-28 02:51:20.000	2023-02-28 12:27:20.000
11	281	13	8	4	2A	2F	2023-02-26 14:14:00.000	2023-02-26 23:50:00.000
12	293	11	12	19	2F	1A	2023-02-20 02:42:05.000	2023-02-20 12:18:05.000
13	298	10	9	13	2F	2F	2023-02-17 01:44:30.000	2023-02-17 14:15:30.000
14	320	16	12	14	1D	2C	2023-02-20 19:09:06.000	2023-02-20 22:01:06.000
15	328	11	16	3	2B	2E	2023-02-18 05:16:14.000	2023-02-18 09:13:14.000
16	330	4	7	9	1A	2B	2023-02-25 03:04:50.000	2023-02-25 12:40:50.000

Question 3:

Select the country with the highest number of Passenger booking tickets

country	NumberOfPassenger
China	123

Question 4:

Select name departure airports and name destination airports for VietNamairline flights

	name airline	Name departing airport	Name arriving airport
1	Vietnam Airlines	Beijing Daxing International Airport	Dallas / Fort Worth International Airport
2	Vietnam Airlines	Cairo International Airport	Frankfurt Airport
3	Vietnam Airlines	Heathrow Airport	Noibai International Airport
4	Vietnam Airlines	London Southend Airport	Berlin Brandenburg Airport
5	Vietnam Airlines	Cairo International Airport	Singapore Changi Airport
6	Vietnam Airlines	Cairo International Airport	Dubai International Airport
7	Vietnam Airlines	Tan Son Nhat International Airport	Charles-de-Gaulle Airport
8	Vietnam Airlines	Noibai International Airport	Dallas / Fort Worth International Airport
9	Vietnam Airlines	Berlin Brandenburg Airport	Noibai International Airport
10	Vietnam Airlines	London Southend Airport	Istanbul International Airport

Question 5:

Select the passenger id, full name , booking id and the weight of their baggage when booking their boarding ticket with the weight =30 kg

	passenger_id	full name	booking_id	weight_in_kg
1	324	Nanci Strother	399	30.00
2	223	Ardys Jefford	504	30.00
3	362	Charles Jouaneton	96	30.00
4	248	Rikki Kinnerley	278	30.00

Question 6:

Select flights that are not yet in operation in May 2023 (no bookings yet)

	id	airline_id	departing_airport	arriving_airport	departing_gate	departure_time	arrival_time
1	241	14	15	19	2C	2023-05-02 01:22:10.000	2023-05-02 10:58:10.000
2	170	19	11	19	1C	2023-05-25 06:19:05.000	2023-05-25 15:55:05.000
3	77	4	19	3	2A	2023-05-26 00:20:55.000	2023-05-26 09:56:55.000
4	269	9	15	1	2D	2023-05-07 17:15:34.000	2023-05-08 01:12:34.000

Question 7:

Select 10 flights with the largest total weight of passengers' baggage

	flight_ID	arrival_time	departure_time	Total weight
1	161	2023-06-23 21:42:08.000	2023-06-23 05:08:08.000	222.50
2	152	2023-06-13 14:39:13.000	2023-06-13 05:03:13.000	199.90
3	28	2023-06-18 19:09:15.000	2023-06-18 09:33:15.000	196.10
4	264	2023-03-09 04:06:52.000	2023-03-08 12:12:52.000	183.40
5	162	2024-02-01 11:06:08.000	2024-02-01 01:30:08.000	181.40
6	186	2023-06-05 09:11:22.000	2023-06-04 23:35:22.000	175.00
7	208	2023-03-16 13:32:56.000	2023-03-16 09:50:56.000	174.10
8	295	2023-07-11 23:13:33.000	2023-07-11 13:37:33.000	165.50
9	184	2023-02-23 17:02:18.000	2023-02-23 09:05:18.000	161.50
10	337	2023-05-19 20:34:14.000	2023-05-19 07:41:14.000	161.50

Question 8:

Create a stored procedure named B2 for calculating the total number of passenger that booked in a given flight, where flight_ID int are the input parameters of the procedure and numberOfPassenger int is the output parameter procedure.

For example, when we execute the procedure B2 with flight_ID = 161

```
DECLARE @x INT
EXEC B2 161,@x OUTPUT
SELECT @x AS NumberOfPassenger
```

	NumberOfPassenger
1	4

Question 9:

Create a trigger named Tr1 for insert statement on table flight so that when we insert one or more flight into table Flight, The system will display flight_ID, departing_airport, arriving_airport, airline_name of the flight that have been inserted

for example , when you execute the following statement, the system will display the results as in the following figure:

```
INSERT INTO dbo.flight
(id,airline_id,departing_airport,arriving_airport,departing_gate,arriving_gate,departure_
time,arrival_time)
VALUES(1000,1,5,9,'1D','2D',GETDATE(), GETDATE())
```

	flight_ID	departing_airport	arriving_airport	airline_name
1	1000	5	9	Vietnam Airlines

Question 10:

Write a query insert form table Passenger id =501, first_name is Tran, last_name is Tuan,

 date_of_birth =26/6/2002, country = VietNam , email = tuantqhe163901@gmail.com gender =male

| 501 | 501 | Tran | Tuan | 2002-06-26 | VietNam | tuantqhe163901@gmail.com | male |