National University of Computer and Emerging Sciences

In Lab Exercise

"Subqueries"

Database Systems Lab

Spring 2024

You are given a script.sql , create a database, tables and populate data in your db.

1. List of all the events which happened after the last one for country 21 (International) took place.
2. List all the countries which have more than 2 events.
3. List the categories which have no events.
4. List all the continents having an event in 1948.
5. List all the continents which have a continent summary starting with "Big".
6. List out all of those events whose Country is not in the list of the last 5 country names in alphabetical order and Category is not in the list of the first 3 categories in alphabetical order.
7. List no of events for each continent between 1900-1999.
8. No of events in which the Continent does not have any Summary.
9. List of Countries that are 'Not Applicable'.
10. In which country did the "Hiroshima" event occur along with the date of happening.


```
-- create the database
--CREATE DATABASE WorldEvents;

CREATE TABLE tblCategory (
        CategoryID int NOT NULL PRIMARY KEY,
        CategoryName nvarchar(255) NULL
);

CREATE TABLE tblContinent(
        ContinentID int NOT NULL PRIMARY KEY,
        ContinentName nvarchar(255) NULL
);

CREATE TABLE tblCountry(
        CountryID int NOT NULL PRIMARY KEY,
        CountryName nvarchar(255) NULL,
        ContinentID int NULL,
   FOREIGN KEY(ContinentID) REFERENCES tblContinent (ContinentID),
);

CREATE TABLE tblEvent(
        EventID int NOT NULL PRIMARY KEY,
        EventName varchar(8000) NULL,
        EventDate date NULL,
        CountryID int NULL,
        CategoryID int NULL,
   FOREIGN KEY(CategoryID) REFERENCES tblCategory (CategoryID)
);

INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (1, 'Politics');
```

```sql
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (2, 'Alien life');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (3, 'Exploration');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (4, 'Natural world');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (5, 'Death and disaster');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (6, 'War and conflict');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (7, 'Sports');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (8, 'Economy');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (9, 'Entertainment and culture');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (10, 'Health and medicine');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (11, 'Love and relationships');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (12, 'Science and technology');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (13, 'Old');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (14, 'Transport');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (15, 'Energy');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (16, 'Royalty and monarchy');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (17, 'Crime and legal');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (18, 'Religion');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (19, 'Education');
INSERT INTO tblCategory (CategoryID, CategoryName) VALUES (20, 'General');

INSERT INTO tblContinent (ContinentID, ContinentName) VALUES (1, 'Asia');
INSERT INTO tblContinent (ContinentID, ContinentName) VALUES (2, 'Africa');
INSERT INTO tblContinent (ContinentID, ContinentName) VALUES (3, 'Europe');
INSERT INTO tblContinent (ContinentID, ContinentName) VALUES (4, 'Australasia');
INSERT INTO tblContinent (ContinentID, ContinentName) VALUES (5, 'South America');
INSERT INTO tblContinent (ContinentID, ContinentName) VALUES (6, 'North America');
INSERT INTO tblContinent (ContinentID, ContinentName) VALUES (7, 'Antarctic');
INSERT INTO tblContinent (ContinentID, ContinentName) VALUES (8, 'Not applicable');

-- add the countries
INSERT INTO tblCountry (CountryID, CountryName, ContinentID) VALUES (1, 'Ukraine', 3);
INSERT INTO tblCountry (CountryID, CountryName, ContinentID) VALUES (2, 'France', 3);
INSERT INTO tblCountry (CountryID, CountryName, ContinentID) VALUES (5, 'United States', 6);
INSERT INTO tblCountry (CountryID, CountryName, ContinentID) VALUES (8, 'Japan', 1);
INSERT INTO tblCountry (CountryID, CountryName, ContinentID) VALUES (11,'Russia', 3);
INSERT INTO tblCountry (CountryID, CountryName, ContinentID) VALUES (13,'Space', 8);
INSERT INTO tblCountry (CountryID, CountryName, ContinentID) VALUES (20, 'Not set', 1);
INSERT INTO tblCountry (CountryID, CountryName, ContinentID) VALUES (21, 'International', 8);
INSERT INTO tblCountry (CountryID, CountryName, ContinentID) VALUES (24, 'India', 1);
INSERT INTO tblCountry (CountryID, CountryName, ContinentID) VALUES (26, 'South Africa', 2);

-- add the events
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (1, 'Chernobyl', '1986-04-26', 1, 5);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (2, 'Pearl Harbour', '1941-12-07' , 5, 6);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (4, 'World War
```

1 ends', '1918-11-11' , 2, 6);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (7, 'World War II ends', '1945-09-02' , 8, 6);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (8, 'Hiroshima', '1945-08-06' , 8, 6);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (9, 'Asian tsunami', '2004-12-26' , 21, 5);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (11, '9/11 attacks', '2001-09-11' , 5, 6);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (14, 'Lehman Brothers collapses', '2008-09-15' , 5, 8);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (19, 'Channel Tunnel opens', '1994-05-06' , 2, 14);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (22, 'Coup attempt in Russia', '1991-08-19' , 11, 6);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (23, 'Google launched', '1998-09-04' , 5, 12);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (328, 'First men land on the moon', '1969-07-20' , 13, 3);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (204, 'Sputnik I launched by Soviet Union', '1957-10-04' , 13, 12);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (136, 'NHS founded', '1948-07-05' , 20, 10);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (133, 'Gandhi assassinated in Delhi', '1948-01-30' , 24, 6);
INSERT INTO tblEvent (EventID, EventName, EventDate, CountryID, CategoryID) VALUES (128, 'India gains independence', '1947-08-14', 21, 1);

-- add a column to the continent table
ALTER TABLE tblContinent ADD Summary varchar(100) NULL;

-- set some (but not all) values
UPDATE tblContinent SET Summary = 'Big' WHERE ContinentID = 1;
UPDATE tblContinent SET Summary = 'Biggish' WHERE ContinentID = 2;
UPDATE tblContinent SET Summary = 'Home' WHERE ContinentID = 3;
UPDATE tblContinent SET Summary = 'Lots of trees' WHERE ContinentID = 5;
UPDATE tblContinent SET Summary = 'Full of penguins' WHERE ContinentID = 7;