1)Using the data from nation database create the table ‘countryRank’ that will display

Ranking of countries by its area from largest to smallest. Ranking shold be calculated for regions and continent.

**create table:**

DROP TABLE IF EXISTS `countryRank`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

SET character\_set\_client = utf8mb4 ;

CREATE TABLE `countryRank` (

`rank` int(11) NOT NULL,

`continent` varchar(50) NOT NULL,

`region` varchar(50) NOT NULL,

`name` varchar(50) NOT NULL,

`area` decimal(10,2) NOT NULL,

`country\_code3` char(3) NOT NULL,

`national\_day` date DEFAULT NULL

) ENGINE=InnoDB AUTO\_INCREMENT=240 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

Insert values:

INSERT INTO countryRank

select \* from (select DENSE\_RANK() OVER (PARTITION BY continent, region ORDER BY area DESC), continents.name as continent, regions.name as region, countries.name as country, countries.area as area, countries.country\_code3 as ccode3, countries.national\_day as nday from regions

inner join continents on continents.continent\_id = regions.continent\_id

inner join countries on regions.region\_id = countries.region\_id) as sr

2)  
  
a)National holiday field shouldn’t contain NULL values, put ‘no data insead’

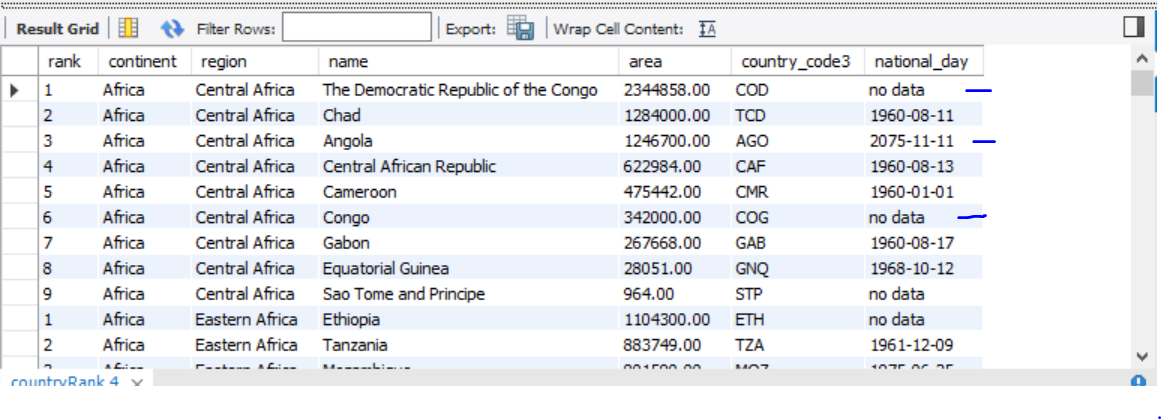
ALTER TABLE countryRank

MODIFY COLUMN national\_day varchar(50);

SET SQL\_SAFE\_UPDATES=0;

UPDATE countryRank SET national\_day='no data' WHERE national\_day IS NULL;

SET SQL\_SAFE\_UPDATES=1;



b)If notional holiday contains the date in future it should be changed to current date

SET SQL\_SAFE\_UPDATES=0;

UPDATE

countryRank

SET

national\_day = CASE

WHEN cast(national\_day as date) > curdate() THEN cast(curdate() as CHAR(50))

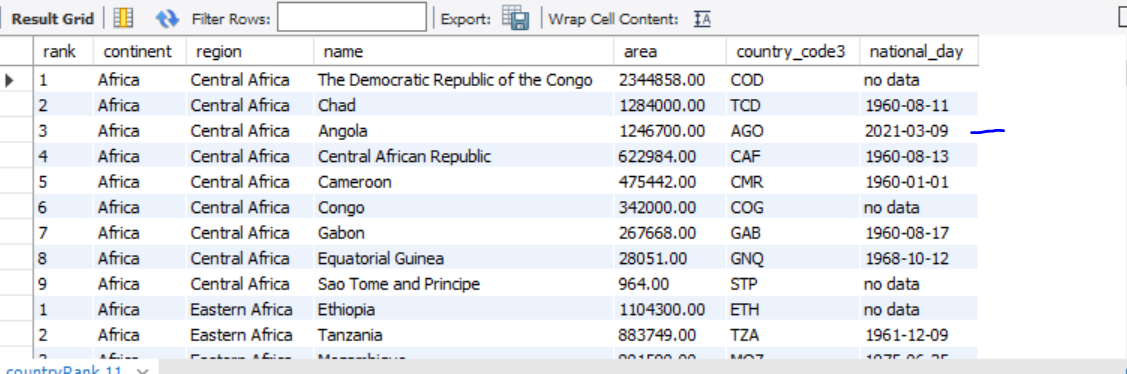
ELSE national\_day

END

WHERE

national\_day != 'no data';

SET SQL\_SAFE\_UPDATES=1;



c)Get rid of the duplicates

**find duplicates:**

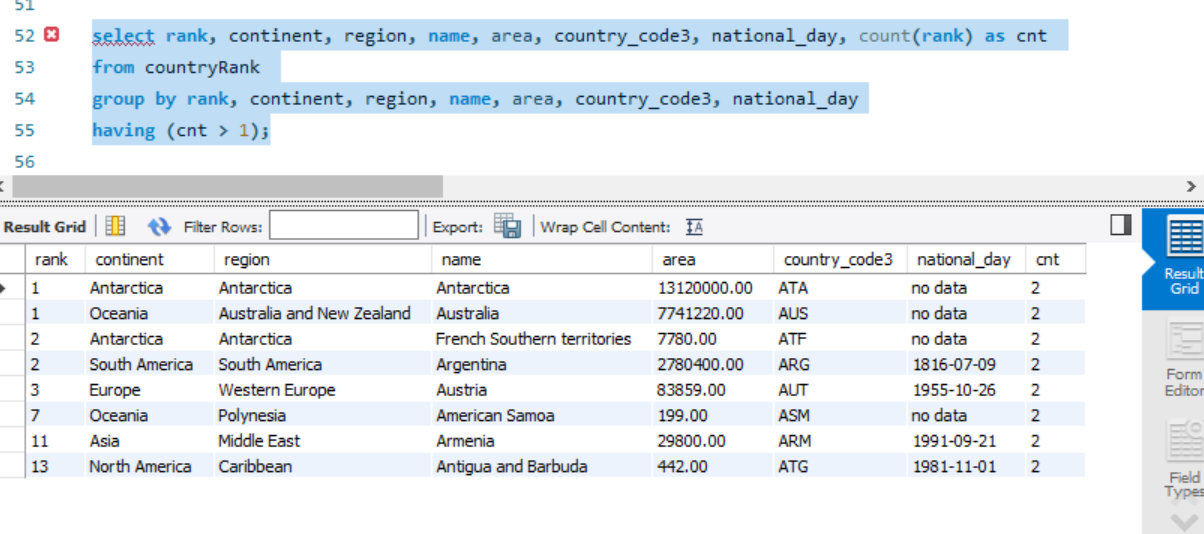
select rank, continent, region, name, area, country\_code3, national\_day, count(rank) as cnt

from countryRank

group by rank, continent, region, name, area, country\_code3, national\_day

having (cnt > 1);

8 duplicates



***I did not found how to remove them. Figured out that I need new table for it.***

Tried out this approach:

ALTER IGNORE TABLE countryRank ADD UNIQUE (rank, continent, region, name, area, country\_code3, national\_day);

But it corrupted ranking and mashed up all coutries

3)

Answer the question – what can be done on a database level to avoid problems with duplicates and Null values?

Duplicate values can be avoided by specifying more complex unique key

Null values can be avoided by restricting this data type in the field;