SPATIAL DATABASES (CS – 615)
LAST HOMEWORK

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Red ID – 824654344
Oracle ID – st162

Question:

You were each assigned a state (or picked one in a few cases). For this assignment you are to make a SDO table row for your state, which should include the following items. You should create a table with 7 fields as follows:

varchar(15) 1. Capital city.
varchar(18) 2. Long and lat of capital city.
blob   3. Picture of the state flag.
clob   4. 100-200 of your own words stating what YOU found interesting about the state.
Be a bit creative. Do not plagiarize. Avoid first person pronouns.
sdo_geom   5. Usual 'shape' column.
varchar(50) 6. A famous novel about your state (title and author). Title should not include your state name!!! e.g. Last of the Mohicans by James Fennimore Cooper, for New York state.
varchar(100)7. Well known tourist site plus brief description thereof.

Your report can consist of an SQL INSERT INTO line with the above info for your state. We might then make up a 50-row table by doing a union of your homework answers.

Solution:

I had been assigned to the state of Louisiana. I have decided to write the following details into my assignment:
Capital City - Baton Rouge

Latitude and Longitude - 30.9843N,91.9623W

Interesting Facts - The state of Louisiana has parishes instead of counties. A large population of Cajuns resides in this state. There is a bridge named Lake Pontchartrain Causeway in Louisiana which is the world's longest bridge over a body of water. Louisiana is also known as the birthplace of Jazz. Louisiana's state capitol building is the tallest in the United States at about 450 feet. It is also one of America's greatest salt producers. There is a world-famous event being held in New Orleans called Mardi Gras. Mausoleums are often used instead of traditional underground graves because most of the New Orleans sits below sea level. The first opera performed in the U.S. took place in the French Quarter of New Orleans in the year 1796. Louisiana is home to both the "Crawfish Capital of the World" and the "Frog Capital of the World". Saint Charles streetcar located in New Orleans is one of the only two mobile national monuments in the country.

Famous Novel - The Awakening by Kate Chopin

Famous Tourist Attraction - The National WWII Museum emphasizing the American experience in World War II.

The SQL Script for the assignment is as follows:
CREATE OR REPLACE DIRECTORY LOUISIANA AS 'D:\Spatial Dhaval';

DROP TABLE States;

CREATE TABLE States(Capital varchar(15),Coordinates varchar(21), Flag BLOB, Report CLOB,Famous_Novel varchar(50),Famous_Tourist_Site varchar(100), SHAPE MDSYS.SDO_GEOMETRY);

DELETE FROM USER_SDO_GEOM_METADATA WHERE TABLE_NAME = 'STATES' AND COLUMN_NAME='SHAPE';

INSERT INTO USER_SDO_GEOM_METADATA (TABLE_NAME, COLUMN_NAME, DIMINFO, SRID) VALUES ('STATES', 'SHAPE', MDSYS.SDO_DIM_ARRAY (MDSYS.SDO_DIM_ELEMENT('X', -180.000000000, 180.000000000, 0.500000000), MDSYS.SDO_DIM_ELEMENT('Y', -90.000000000, 90.000000000, 0.500000000)), 8307);

CREATE INDEX states_spatial_idx on States(SHAPE) INDEXTYPE IS MDSYS.SPATIAL_INDEX;

INSERT INTO States(Capital, Coordinates, Flag, Report, Famous_Novel, Famous_Tourist_Site, Shape) VALUES ('Baton Rouge', '30.9843,-91.9623', EMPTY_BLOB(),'The state of Louisiana has parishes instead of counties. A large population of Cajuns resides in this state. There is a bridge named Lake Pontchartrain Causeway in Louisiana which is the worlds longest bridge over a body of water. Louisiana is also known as the birthplace of Jazz. Louisiana state capitol building is the tallest in the United States at about 450 feet. It is also one of Americas greatest salt producers. There is a world-famous event being held in New Orleans called Mardi Gras. Mausoleums are often used instead of traditional underground graves because most of the New Orleans sits below sea level. The first opera performed in the U.S. took place in the French Quarter of New Orleans in the year 1796. Louisiana is home to both the Crawfish Capital of the World and the Frog Capital of the World. Saint Charles streetcar located in New Orleans is one of the only two mobile national monuments in the country.','The Awakening by Kate Chopin','The National WWII Museum emphasizing the American experience in World War II.',SDO_GEOMETRY(7, 8307, NULL, SDO_ELEM_INFO_ARRAY(1, 3, 1), SDO_ORDINATE_ARRAY(-93.707359, 30.239372, -93.699211, 30.297388, -93.729774, 30.304916, -93.759178, 30.340872, -93.759338, 30.354145, -93.747833,30.367411, -93.754944, 30.381788, -93.742561, 30.408823, -93.721535, 30.43298, -93.696571, 30.442633, -93.703423, 30.462513, -93.697975, 30.470047, -93.714851,30.488628, -93.707275, 30.496241, -93.714638, 30.505114, -93.70546, 30.522858, -93.735306, 30.545517, -93.71788, 30.568153, -93.717812, 30.587379, -93.69342, 30.598835, -93.671585, 30.597832, -93.692696, 30.615795, -93.684586, 30.623425, -93.692879, 30.640041, -93.677971, 30.639692, -93.659988, 30.672859, -93.617607, 30.686802, -93.612411, 30.710329, -93.61779, 30.732548, -93.607651, 30.73201, -93.618454, 30.745789, -93.585175, 30.772184, -93.581871, 30.80204, -93.550682, 30.828344, -93.555641, 30.842342, -93.566444, 30.845148, -93.552803, 30.860283, -93.560844, 30.87188, -93.568497, 30.886234, -93.564476, 30.901932, -93.546516, 30.905334, -93.549622, 30.924885, -93.529984, 30.926971, -93.52562, 30.93582, -93.532188, 30.960732, -93.537338, 30.956884, -93.548676, 30.97019, -93.572456, 30.976177, -93.560951, 30.99169, -93.570847, 30.997271, -93.567894, 31.012924, -93.564941, 31.018063, -93.547119, 31.014141, -93.507217, 31.038908, -93.525742, 31.05698, -93.516998, 31.074671, -93.544106, 31.082373, -93.543121, 31.094751, -93.559982, 31.100536, -93.556679, 31.109343, -93.535088, 31.116072, -93.528091, 31.125925, -93.537506, 31.132441, -93.544189, 31.159166, -93.528328, 31.162943, -93.537018, 31.17634, -93.526932, 31.178076, -93.528923, 31.185774, -93.550591, 31.190929, -93.576942, 31.17214, -93.593941, 31.180199, -93.602921, 31.199066, -93.590546, 31.229687, -93.611, 31.242188, -93.611877, 31.270033, -93.616455, 31.275805, -93.630829, 31.273903, -93.645592,

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CREATE OR REPLACE PROCEDURE load_flag IS

    src_bfile BFILE := BFILENAME('LOUISIANA', 'Louisiana-Flag.jpg');

    dest_blob BLOB;

    BEGIN

SELECT flag into dest_blob FROM States WHERE Capital = 'Baton Rouge' FOR UPDATE;

DBMS_LOB.fileopen(src_bfile, DBMS_LOB.LOB_READONLY);

DBMS_LOB.LoadFromFile(dest_blob,src_bfile,DBMS_LOB.GETLENGTH(src_bfile));

DBMS_LOB.fileclose(src_bfile);

COMMIT;

END;

/

EXECUTE load_flag;

select * from states;

The SQL script and its various attributes looks as follows in my local oracle and SQL database:

Oracle SQL Developer : D:\Spatial Dhaval\dhaval.sql

File Edit View Navigate Run Source Team Tools Window Help

Connections
- Oracle Connections
  - Admin
  - Scott
    - Tables (Filtered)
      - BONUS
      - DEPT
      - EMP
      - LOUISIANA
      - MDRT_127D4$
      - SALGRADE
      - STATES
      - USSTATES
      - VERMONTSTATE
    - Views
    - Indexes
    - Packages
    - Procedures
    - Functions
    - Operators
    - Queues
    - Queues Tables

Reports
- All Reports
  - Analytic View Reports
  - Data Dictionary Reports
  - Data Modeler Reports
  - OLAP Reports
  - TimesTen Reports
  - User Defined Reports

SQL Worksheet History

Worksheet Query Builder

```
CREATE OR REPLACE DIRECTORY LOUISIANA AS 'D:\Spatial Dhaval';

DROP TABLE States;

CREATE TABLE States(Capital varchar(15),Coordinates varchar(21), Flag BLOB, Report CLOB,Famous_Novel varchar(50

DELETE FROM USER_SDO_GEOM_METADATA WHERE TABLE_NAME = 'STATES' AND COLUMN_NAME='SHAPE';

INSERT INTO USER_SDO_GEOM_METADATA (TABLE_NAME, COLUMN_NAME, DIMINFO, SRID) VALUES ('STATES', 'SHAPE', MDSYS.SD

CREATE INDEX states_spatial_idx on States(SHAPE) INDEXTYPE IS MDSYS.SPATIAL_INDEX;

INSERT INTO States(Capital, Coordinates, Flag, Report, Famous_Novel, Famous_Tourist_Site,shape) VALUES ('Baton

CREATE OR REPLACE PROCEDURE load_flag IS
    src_bfile BFILE := BFILENAME('LOUISIANA', 'Louisiana-Flag.jpg');
    dest_blob BLOB;
    BEGIN
        SELECT flag into dest_blob FROM States WHERE Capital = 'Baton Rouge' FOR UPDATE;
        DBMS_LOB.fileopen(src_bfile, DBMS_LOB.LOB_READONLY);
        DBMS_LOB.LoadFromFile( dest_blob,src_bfile,DBMS_LOB.GETLENGTH(src_bfile) );
        DBMS_LOB.fileclose(src_bfile);
        COMMIT;
    END;
/
EXECUTE load_flag;

select * from states;
```

View Value

Information Saved Image

Script Output Query Result
SQL | All Rows Fetched: 1 in 0.007 seconds

CAPITAL	COORDINATES	FLAG	REPORT	FAMOUS_NOVEL	FAMOUS_TOURIST_SITE
1 Baton Rouge	30.9843,-91.9623	(BL...	The state of Louisiana has parishes instead of counties. A large populat...	The Awakening by Kate Chopin	The National WWII Museum emphasizing the American experience in World

Saved: D:\Spatial Dhaval\dhaval.sql

Welcome Page | Admin | STATES | dhaval.sql

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

Actions...

	COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1	CAPITAL	VARCHAR2(15 BYTE)	Yes	(null)	1	(null)
2	COORDINATES	VARCHAR2(21 BYTE)	Yes	(null)	2	(null)
3	FLAG	BLOB	Yes	(null)	3	(null)
4	REPORT	CLOB	Yes	(null)	4	(null)
5	FAMOUS_NOVEL	VARCHAR2(50 BYTE)	Yes	(null)	5	(null)
6	FAMOUS_TOURIST_SITE	VARCHAR2(100 BYTE)	Yes	(null)	6	(null)
7	SHAPE	SDO_GEOMETRY	Yes	(null)	7	(null)

Welcome Page | Admin | STATES | dhaval.sql

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

Sort.. | Filter: | Actions...

	CAPITAL	COORDINATES	FLAG	REPORT	FAMOUS_NOVEL	FAMOUS_TOURIST_SITE	SHAPE
1	Baton Rouge	30.9843,-91.9623	(BLOB)	The state of Louisiana has parishes instead of counti...	The Awakening by Kate Chopin	The National WWII Museum emphasizing the American experience in ...	[MDSYS.SDO_GEOMETRY]