

# Research Document (MySQL Spatial Data Types, Storing spatial data and using it to create a Restful Web service)

**Aim:** The aim of the document is to successfully research ways to be able to store geo spatial data in MySQL database

**Why:** Currently (24 Feb, 2017) I have been using SAP Hana HCP but the issue is its not free and is very expensive to move from trial to pro version, so the better alternative is MySQL if I am successfully able to implement what I was able to do with HCP. And, the advantages will be free of cost, HCP trial needs restart every 12 hours and auto deletes after 6 days which is a big disadvantage, MySQL will allow 99% uptime for web service.

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Importance of the external resources used based on Level:

**Level (High) – Very helpful and important**

**Level (Medium) – Important and Some what helpful and related**

**Level (Low) – Helped to see some light, but not very useful resource.**

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\*\*\*\*\*Creating a table with geometry\*\*\*\*\*

create table myspatialdata (id integer(7), bpolygon Geometry, mpoint Geometry);

\*\*\*\*\*

Query to show the columns in the table:

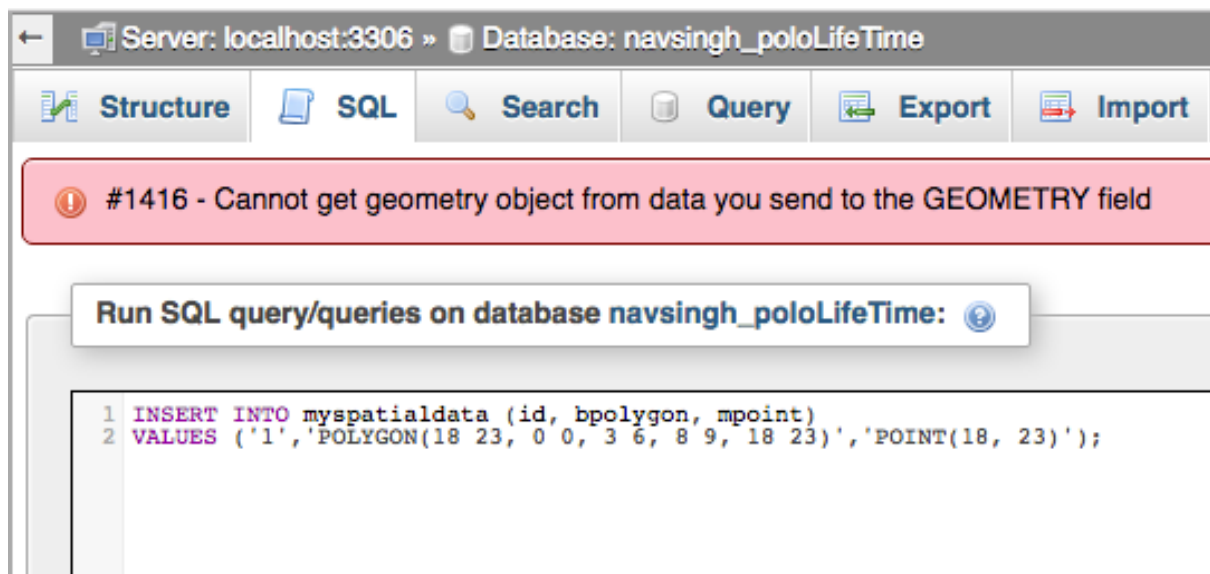
**SHOW COLUMNS FROM** myspatialdata

Field	Type	Null	Key	Default	Extra
id	int(7)	YES		NULL	
bpolygon	geometry	YES		NULL	
mpoint	geometry	YES		NULL	

\*\*\*Quite close to solving problem of inserting spatial data into MySQL\*\*\*

INSERT INTO myspatialdata (id, bpolygon, mpoint)

VALUES ('1','POLYGON(18 23, 0 0, 3 6, 8 9, 18 23)','POINT(18, 23)');

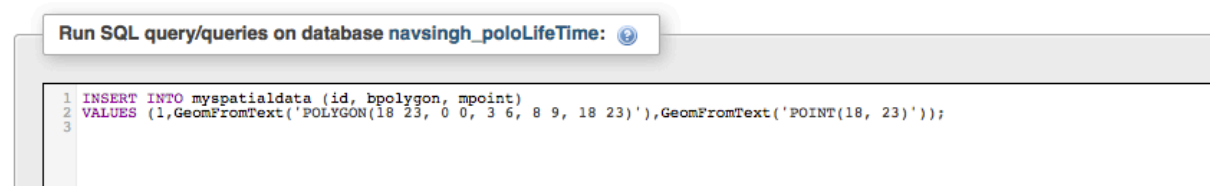


\*\*\*\*Working SQL Statement to insert spatial data in MySQL (Polygon and Point)\*\*\*\*\*

```
INSERT INTO myspatialdata (id, bpolygon, mpoint)
VALUES (1,GeomFromText('POLYGON(18 23, 0 0, 3 6, 8 9, 18
23)'),GeomFromText('POINT(18, 23)'));
```

✓ 1 row inserted. (Query took 1.4309 sec)

```
INSERT INTO myspatialdata ( id, bpolygon, mpoint )
VALUES ( 1, GEOMFROMTEXT( 'POLYGON(18 23, 0 0, 3 6, 8 9, 18 23)' ), GEOMFROMTEXT( 'POINT(18, 23)' ) )
```



Note: Useful documentation on MySQL Spatial Data Types  
<http://www.w3resource.com/mysql/mysql-spatial-data-types.php>  
(Level: High)

Inserting Coordinates into MySQL (Stack Flow)  
<http://stackoverflow.com/questions/15453084/inserting-coordinates-into-mysql-polyfromtext-sql-syntax-error-returning-nul>  
(Level: Low)

