

Semantic GIS, GeoSPARQL

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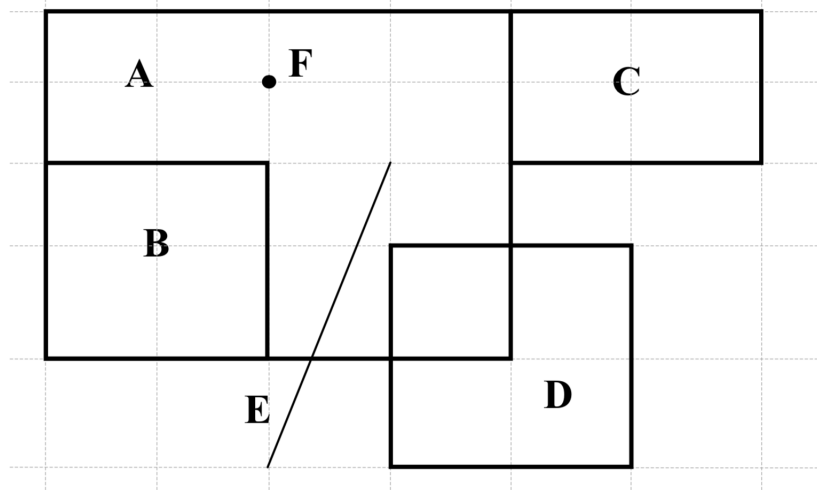
1 GraphDB

GeoSPARQL has full support in GraphDB.

1.1 Preparation

Download and import data into Graph DB – https://graphdb.ontotext.com/documentation/9.0/free/_downloads/geosparql-example.rdf and enable GeoSPARQL:

```
PREFIX : <http://www.ontotext.com/plugins/geosparql#>  
  
INSERT DATA {  
  _:s :enabled "true" .  
}
```



1.2 Spatial filters

Ex. 1 — Select all features that touches each other.

Ex. 2 — Select all features overlapping rectangle D.

Ex. 3 — Select closest feature to the point.

```
"<http://www.opengis.net/def/crs/OGC/1.3/CRS84>  
Point(-83.1 34.4)^^geo:wktLiteral
```

1.3 Spatial queries

Following exercises are for practising spatial queries

Ex. 4 — Create feature AC as a union of features A and C.

Ex. 5 — Find all features closer than 10 kilometers to line E.

2 Relevant References

- OGC GeoSPARQL standard https://portal.opengeospatial.org/files/?artifact_id=47664,
- GraphDB GeoSPARQL support <https://graphdb.ontotext.com/documentation/9.0/free/geosparql-support.html?highlight=geosparql>.