

CS585: Assignment – 2 (Summer 2016)
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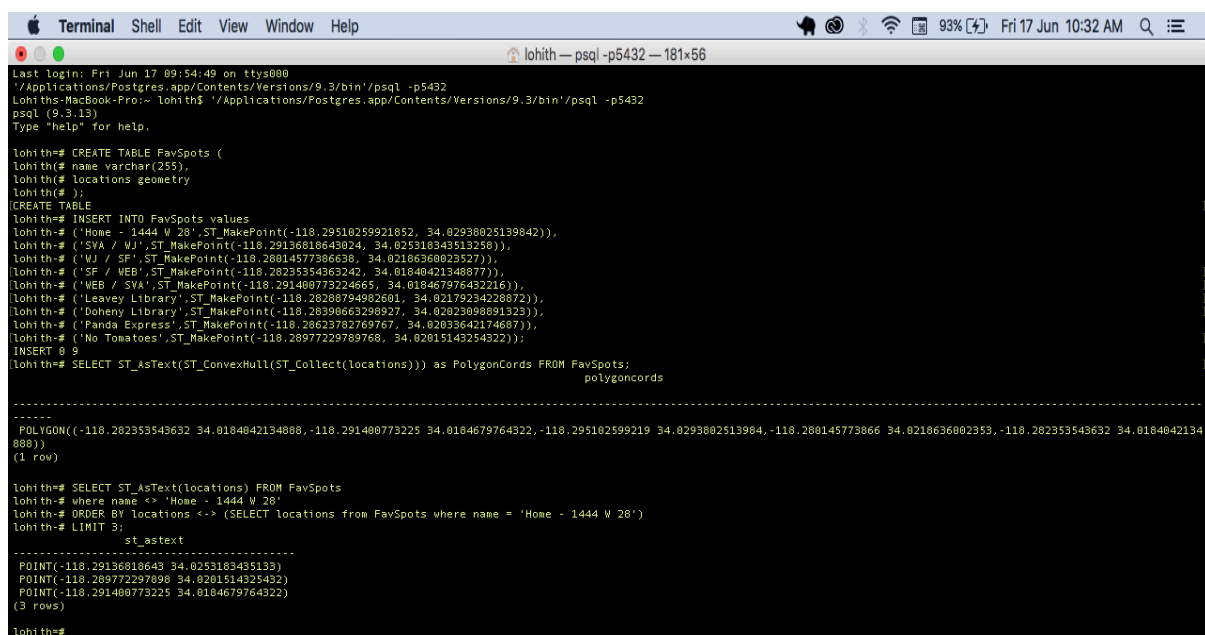
```
CREATE EXTENSION postgis;
```

```
CREATE TABLE FavSpots (  
  name varchar(255),  
  locations geometry  
);
```

```
INSERT INTO FavSpots values  
( 'Home - 1444 W 28',ST_MakePoint(-118.29510259921852, 34.02938025139842)),  
( 'SVA / WJ',ST_MakePoint(-118.29136818643024, 34.025318343513258)),  
( 'WJ / SF',ST_MakePoint(-118.28014577386638, 34.02186360023527)),  
( 'SF / WEB',ST_MakePoint(-118.28235354363242, 34.01840421348877)),  
( 'WEB / SVA',ST_MakePoint(-118.291400773224665, 34.018467976432216)),  
( 'Leavey Library',ST_MakePoint(-118.28288794982601, 34.02179234228872)),  
( 'Doheny Library',ST_MakePoint(-118.28390663298927, 34.02023098891323)),  
( 'Panda Express',ST_MakePoint(-118.28623782769767, 34.02033642174687)),  
( 'No Tomatoes',ST_MakePoint(-118.28977229789768, 34.02015143254322));
```

```
SELECT ST_AsText(ST_ConvexHull(ST_Collect(locations))) as PolygonCords FROM FavSpots;
```

```
SELECT ST_AsText(locations) FROM FavSpots  
where name <> 'Home - 1444 W 28'  
ORDER BY locations <-> (SELECT locations from FavSpots where name = 'Home - 1444 W 28')  
LIMIT 3;
```



```
Terminal Shell Edit View Window Help
lohit — psql -p5432 — 181x56

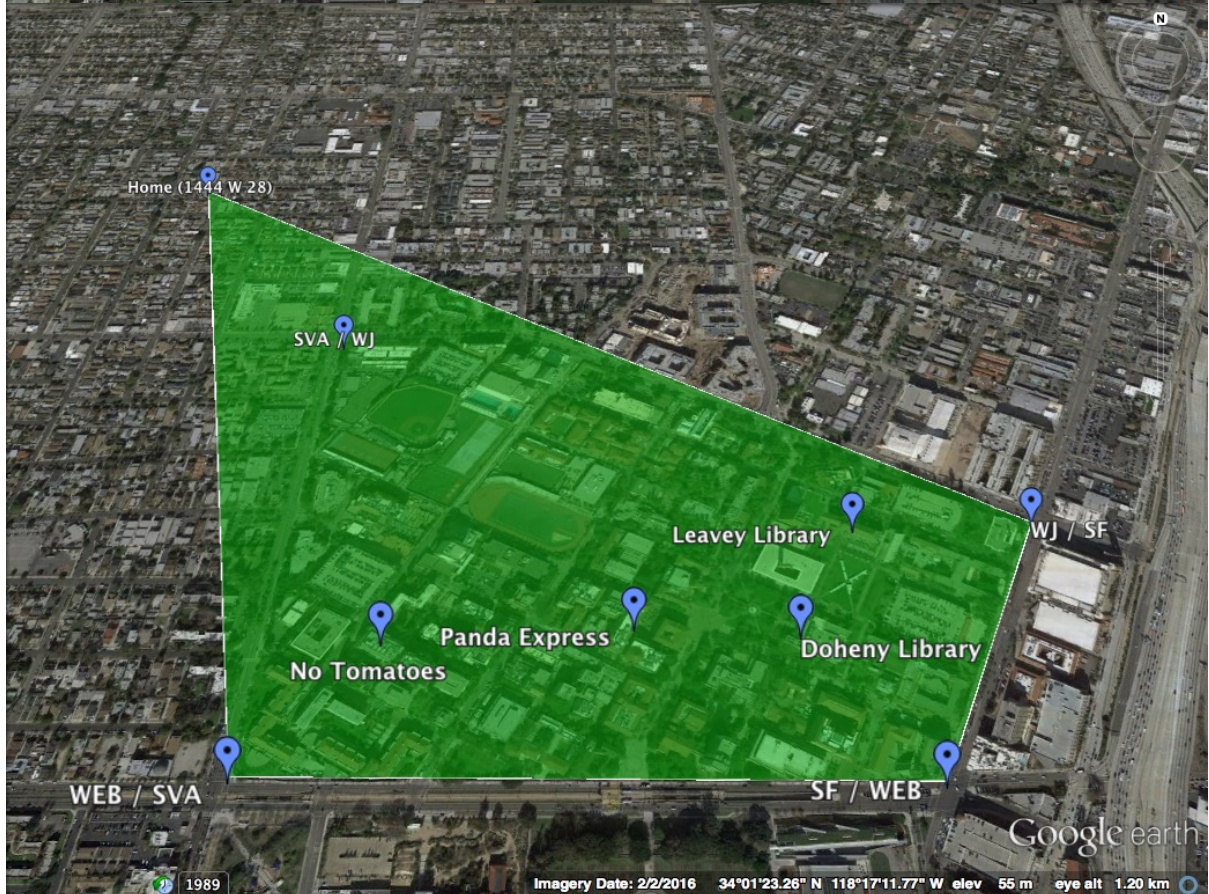
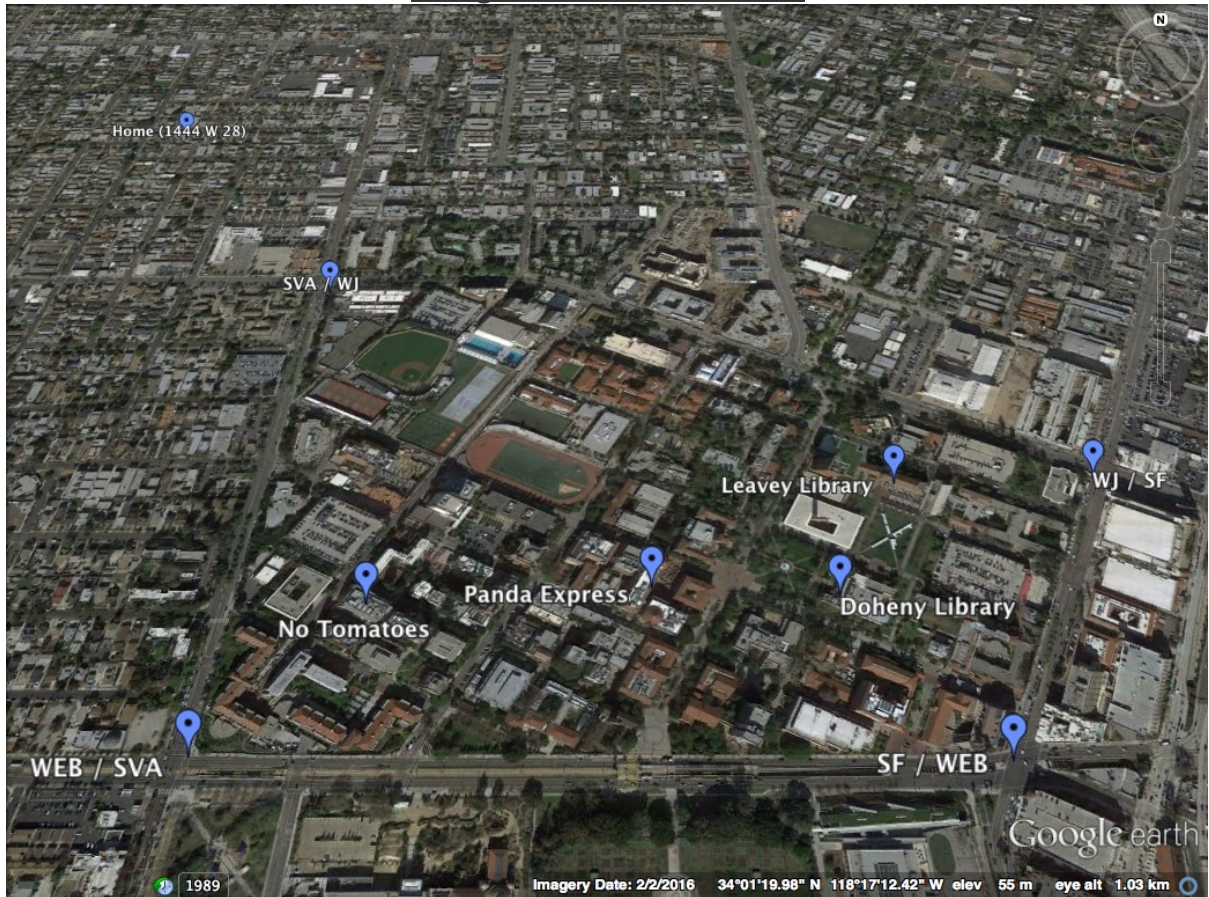
Last login: Fri Jun 17 09:54:49 on ttys000
/Applications/Postgres.app/Contents/Versions/9.3/bin/psql -p5432
lohit@MacBook-Pro:~$ psql -p5432
psql (9.3.13)
Type "help" for help.

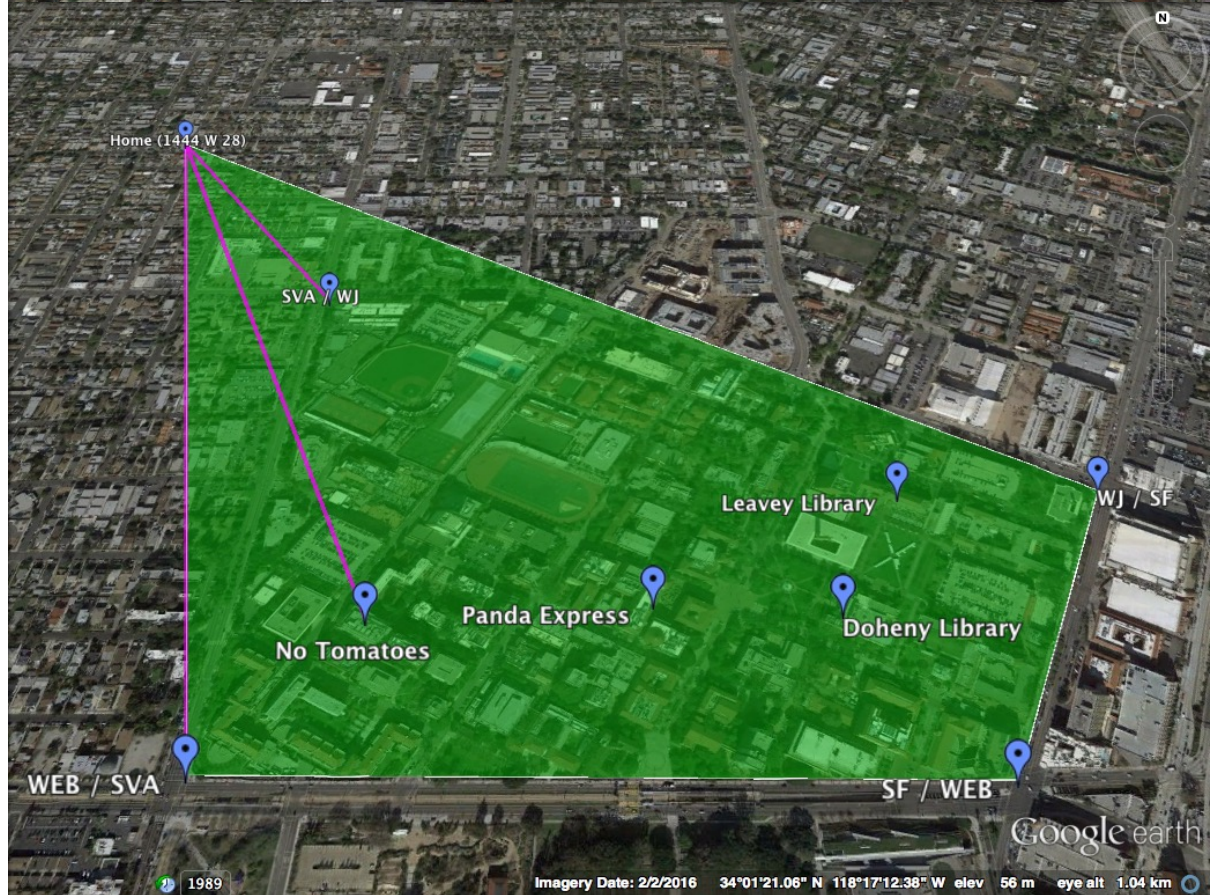
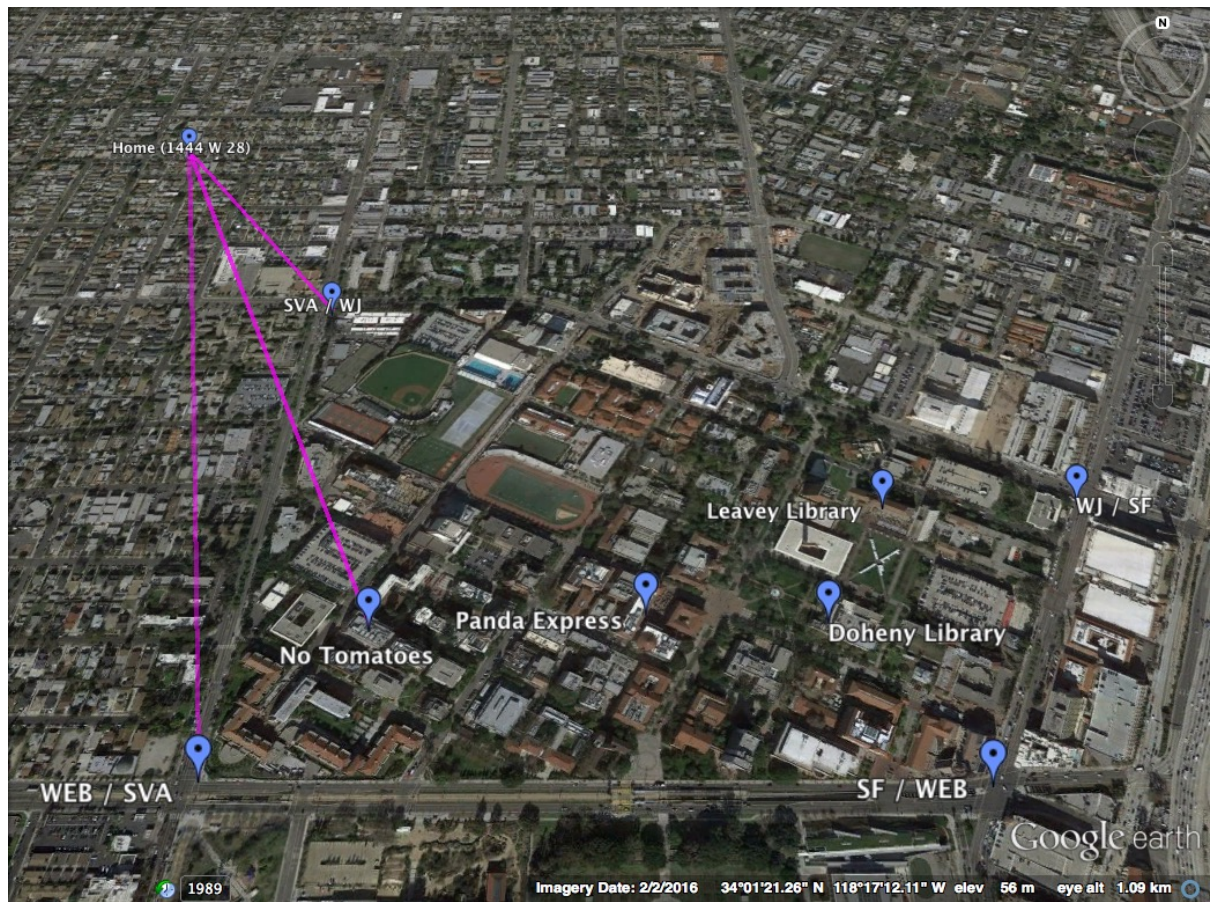
lohit=# CREATE TABLE FavSpots (
lohit=#   name varchar(255),
lohit=#   locations geometry
lohit=# );
CREATE TABLE
lohit=# INSERT INTO FavSpots values
lohit=# ('Home - 1444 W 28',ST_MakePoint(-118.29510259921852, 34.02938025139842)),
lohit=# ('SVA / WJ',ST_MakePoint(-118.29136818643024, 34.025318343513258)),
lohit=# ('WJ / SF',ST_MakePoint(-118.28014577386638, 34.02186360023527)),
lohit=# ('SF / WEB',ST_MakePoint(-118.28235354363242, 34.01840421348877)),
lohit=# ('WEB / SVA',ST_MakePoint(-118.291400773224665, 34.018467976432216)),
lohit=# ('Leavey Library',ST_MakePoint(-118.28288794982601, 34.02179234228872)),
lohit=# ('Doheny Library',ST_MakePoint(-118.28390663298927, 34.02023098891323)),
lohit=# ('Panda Express',ST_MakePoint(-118.28623782769767, 34.02033642174687)),
lohit=# ('No Tomatoes',ST_MakePoint(-118.28977229789768, 34.02015143254322));
INSERT 0 9
lohit=# SELECT ST_AsText(ST_ConvexHull(ST_Collect(locations))) as PolygonCords FROM FavSpots;
          polygoncords
-----
POLYGON((-118.282353543632 34.0184042134888,-118.291400773225 34.0184679764322,-118.295102599219 34.0293802513984,-118.280145773866 34.0218636002353,-118.282353543632 34.0184042134
(1 row)

lohit=# SELECT ST_AsText(locations) FROM FavSpots
lohit=# where name <> 'Home - 1444 W 28'
lohit=# ORDER BY locations <-> (SELECT locations from FavSpots where name = 'Home - 1444 W 28')
lohit=# LIMIT 3;
          st_astext
-----
POINT(-118.29136818643 34.0253183435133)
POINT(-118.289772297898 34.0201514325432)
POINT(-118.291400773225 34.0184679764322)
(3 rows)

lohit=#
```


GoogleEarth Screenshots





Keyhole Markup Language (KML file)

```
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<kml xmlns="http://earth.google.com/kml/2.0">
  <Document>
    <Style id="z1">
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    </Style>st)
    <Placemark><name>Home (1444 W 28)</name>
    <styleUrl>#z1</styleUrl><Point><coordinates>-118.29510259921852, 34.02938025139842</coordinates></Point>
    </Placemark>
    <Placemark><name>SVA / WJ</name>
    <styleUrl>#z1</styleUrl><Point><coordinates>-118.29136818643024, 34.025318343513258</coordinates></Point>
    </Placemark>
    <Placemark><name>WJ / SF</name>
    <styleUrl>#z1</styleUrl><Point><coordinates>-118.28014577386638, 34.02186360023527</coordinates></Point>
    </Placemark>
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    <styleUrl>#z1</styleUrl><Point><coordinates>-118.28235354363242, 34.01840421348877</coordinates></Point>
    </Placemark>
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    </Placemark>
    <Placemark><name>Leavey Library</name>
    <styleUrl>#z1</styleUrl><Point><coordinates>-118.28288794982601, 34.02179234228872</coordinates></Point>
    </Placemark>
    <Placemark><name>Doheny Library</name>
    <styleUrl>#z1</styleUrl><Point><coordinates>-118.28390663298927, 34.02023098891323</coordinates></Point>
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    <Placemark><name>Panda Express</name>
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    </Placemark>
    <Placemark><name>No Tomatoes</name>
    <styleUrl>#z1</styleUrl><Point><coordinates>-118.28977229789768, 34.02015143254322</coordinates></Point>
    </Placemark>

    <Style id="transGreenPoly">
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        <width>1.5</width>
      </LineStyle>
      <PolyStyle>
        <color>7d00ff00</color>
      </PolyStyle>
    </Style>

    <Placemark>
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```

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<Polygon>
  <extrude>1</extrude>
  <outerBoundaryIs>
    <LinearRing>
      <coordinates>
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        -118.291400773225,34.0184679764322
        -118.295102599219,34.0293802513984
        -118.280145773866,34.0218636002353
        -118.282353543632,34.0184042134888
      </coordinates>
    </LinearRing>
  </outerBoundaryIs>
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  </PolyStyle>
</Style>

<Placemark>
  <name>Absolute</name>
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  <LineString>
    <extrude>1</extrude>
    <tessellate>1</tessellate>
    <coordinates>
      -118.29510259921852,34.02938025139842 -118.29136818643,34.0253183435133
      -118.29510259921852,34.02938025139842 -118.289772297898,34.0201514325432
      -118.29510259921852,34.02938025139842 -118.291400773225,34.0184679764322
    </coordinates>
  </LineString>
</Placemark>

</Document>
</kml>

```