**Geoanalytics platform installation and upgrade guidelines**

**Installation**

**Pre-Requisites**

1. Java 8
2. LIBXML 2.9.3
3. LIBJSON 0.11.99

**Install** - **Download**

1. Postgres 9.5+
   * Extensions
     + PostGIS 2.2.1
     + Postgis\_topology 2.2.1
     + plpgsql
     + uuid-ossp
2. Apache Tomcat 8+
3. Geoserver 2.9+
4. SmartGears
5. Geoanalytics.war from Etics

Postgres

1. Install postgres:
   1. apt-get install postgresql-9.5 postgis postgresql-9.5-postgis-2.2 postgresql-client-9.5 postgresql-contrib-9.5 postgresql-9.5-postgis-2.2 postgresql-9.5-postgis-scripts libdbd-pg-perl
2. Connect to postgres as user postgres.
   1. (Root user) sudo su
   2. (postgres user) su – postgres
   3. (connect to postgres) psql
3. Create the database, extensions and give ownership to user geopolis,
   1. CREATE DATABASE geoanalytics;
   2. CREATE USER geopolis WITH PASSWORD 'cc';
   3. ALTER DATABASE geoanalytics OWNER TO geopolis;
   4. GRANT ALL PRIVILEGES ON DATABASE geoanalytics to geopolis;
   5. \connect geoanalytics
   6. CREATE EXTENSION IF NOT EXISTS plpgsql;
   7. CREATE EXTENSION IF NOT EXISTS postgis;
   8. SELECT PostGIS\_full\_version();(Press q to exit version screen)
   9. CREATE EXTENSION IF NOT EXISTS postgis\_topology;
   10. CREATE EXTENSION IF NOT EXISTS "uuid-ossp";
   11. (View installed extensions) SELECT name, default\_version,installed\_version FROM pg\_available\_extensions where installed\_version is not null;
   12. (Exit PSQL console) \q
   13. Download scripts from repository(geoanalyticsDB folder first)
   14. (Create db using scripts) psql -d geoanalytics < /home/gcube/install/2016-12-02/geoanalyticsWithNewUpdates.sql 2>error.txt
   15. (Execute the rest of the scripts(with the proper order, it is included in the files' titles) the same way as above)
   16. psql
   17. (connect to db) \c geoanalytics
   18. (view all tables, views and matterialized views) \d
   19. (If there are tables or views whose owner is not geopolis, give ownership to geopolis manually)  
       ALTER TABLE "XXXXXX" OWNER TO geopolis;  
       ALTER VIEW "CCCCCC" OWNER TO geopolis;

Apache Tomcat

<https://tomcat.apache.org/download-80.cgi>

Geoserver

<http://geoserver.org/download/>

Deploy it in the same tomcat server with the geoanalytics application.

Change the default password for the admin user.

SmartGears

<https://wiki.gcube-system.org/gcube/SmartGears_Web_Hosting_Node_(wHN)_Installation>

Geoanalytics

Download latest version from ETICS.

Once deployed you need to configure it properly so that the application can connect with the db and the geoserver with the credentials you have created.

* Navigate to apache tomcat webapps folder, then into geoanalytics application, then WEB-INF folder.
* Open geoanalytics.properties file and configure the following properties:
  + gr.cite.geoanalytics.dataaccess.dbUser, set it to geopolis
  + gr.cite.geoanalytics.dataaccess.dbPass, set it to the password you have created when creating the geopolis user for the geoanalytics database
  + gr.cite.geoanalytics.dataaccess.geoServerBridge.url, the geoserver is usually deployed in the same tomcat as the geoanalytics application so it usually is <http://localhost:8080/geoserver>
  + gr.cite.geoanalytics.dataaccess.geoServerBridge.user, set it to admin
  + gr.cite.geoanalytics.dataaccess.geoServerBridge.pass, set it to the NEW password you have created for the admin user of geoserver
  + gr.cite.geoanalytics.security.portmapping.http, set it to 8080
  + gr.cite.geoanalytics.security.portmapping.https, set it to 8443
  + gr.cite.geoanalytics.persistence.dbusername, set it to geopolis
  + gr.cite.geoanalytics.persistence.dbpassword, set it to the password you have created when creating the geopolis user for the geoanalytics database

**Upgrade**

* Download latest sql scripts from the latest version folder
* Run scripts as described above(in case of new tables, check if the new tables' owner is geopolis, otherwise change the ownership manually as described above)
* Download latest .war from ETICS.
* Deploy it, configure geoanalytics.properties file as described above.