

COS 787 Spatial databases



Assignment 2

Due date: 15 April 2019

Total: 30

Instructions:

1. The practical assignment 3 may be completed in groups of two.
2. Download the data from ClickUP and install PostgreSQL, PostGIS and GDAL/OGR.
3. Include ALL THE CODE in your submission, as you may be asked to execute and demonstrate the code.

Deliverables:

SQL file with the queries uploaded to ClickUP. You will be asked to execute the queries and explain them.

Questions:

Load the data in the *prac2.zip* file into a PostgreSQL database, and complete the following questions using SQL:

- 3.1. Import the files into a database using the appropriate SQL functions.
- 3.2. List the land cover types in the areas that have burnt areas?
- 3.3. What is the land cover type where the most recent, intense fire occurred?
- 3.4. Which province receives the most rainfall/precipitation?
- 3.5. How much rainfall does the province that receives the most rainfall get?
- 3.6. What is the area of the province that receives the most rainfall/?
- 3.7. What is the land cover type of the province that receive the most rainfall?
- 3.8. What is the most predominant land cover in Gauteng?
- 3.9. NDWI for the Kruger National Park
 - a. What is the formula for NDWI?
 - b. What is the NDWI for the Kruger National Park?