Worksheet 6

Considering the 4 tables in the dataset, taxi_stands, taxi_services, tracks and cont_aad_caop2018, write SQL expressions for the following questions:

1. Determine the total number of taxi stands that are inside the parish of 'Ramalde';
2. Count a service from the table taxi_services as starting in a taxi stand if it is within 100 meters from the taxi_stand location. Determine the percentage of services that emerge from taxi stands.
3. Count a service from the table taxi_services as starting in a taxi stand if it is within 100 meters from the taxi_stand location. Determine the number of services emerging from each taxi stand.
4. Using the taxi_services tables, create an origin/destination matrix from parishes of the municipality of Porto (a table listing pairs of parishes and the number of services between them).
5. Using the tracks table, list the total distance travelled per taxi state.
6. Using the tracks table, list the total distance travelled by each taxi in state 'BUSY', showing just the top ten taxis.
7. Using the taxi_services tables, show an histogram per hour of the day of the number of services. Create two histograms, one for working week days and another for weekends.
8. Using the taxi_services table, compute the percentage of the top 10 municipalities where services that start in Porto will end. List such percentages.
9. Show the speed profile, second by second, of the track with id 1000.
10. List all the taxi ids that have maintained a speed above 140 km/h for more that 10 consecutive seconds.