RELOCATION OF SECONDED STAFF WORKING FOR AN INTERNATIONAL ORGANISATION IN LYON, FRANCE

APPLIED DATA SCIENCE CAPSTONE

IBM DATA SCIENCE PROFESSIONAL CERTIFICATE

LYON

BACKGROUND

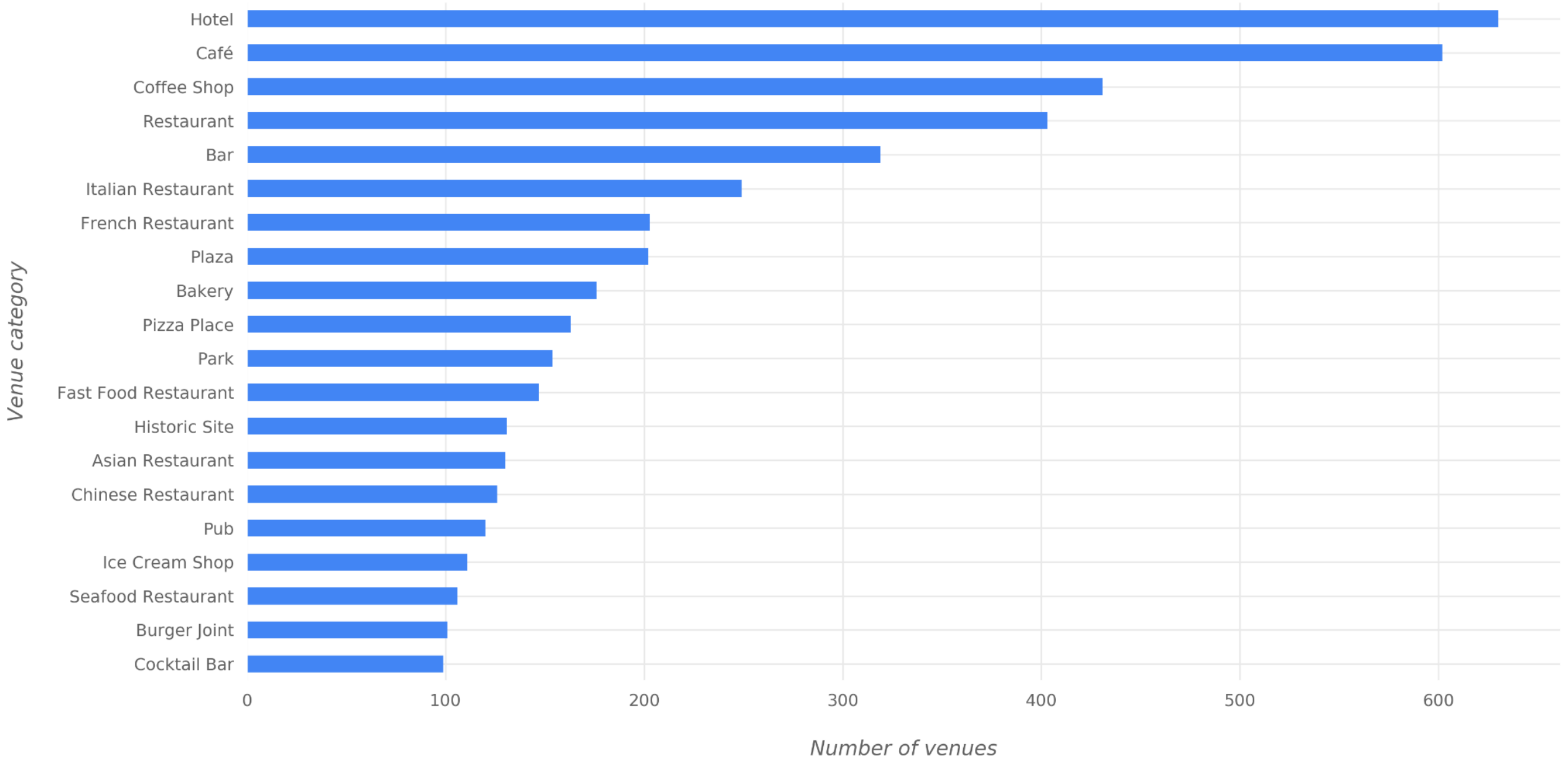
An International Organisation needs to relocate its seconded staff coming from all capital cities in the world to work for a period of 3 to 5 years. The Organisation struggles to find good places to rent appartements due to the seconded staff different culture and habits.

They need to compare Lyon and World capitals cities neighborhoods to determine how similar or dissimilar they are.

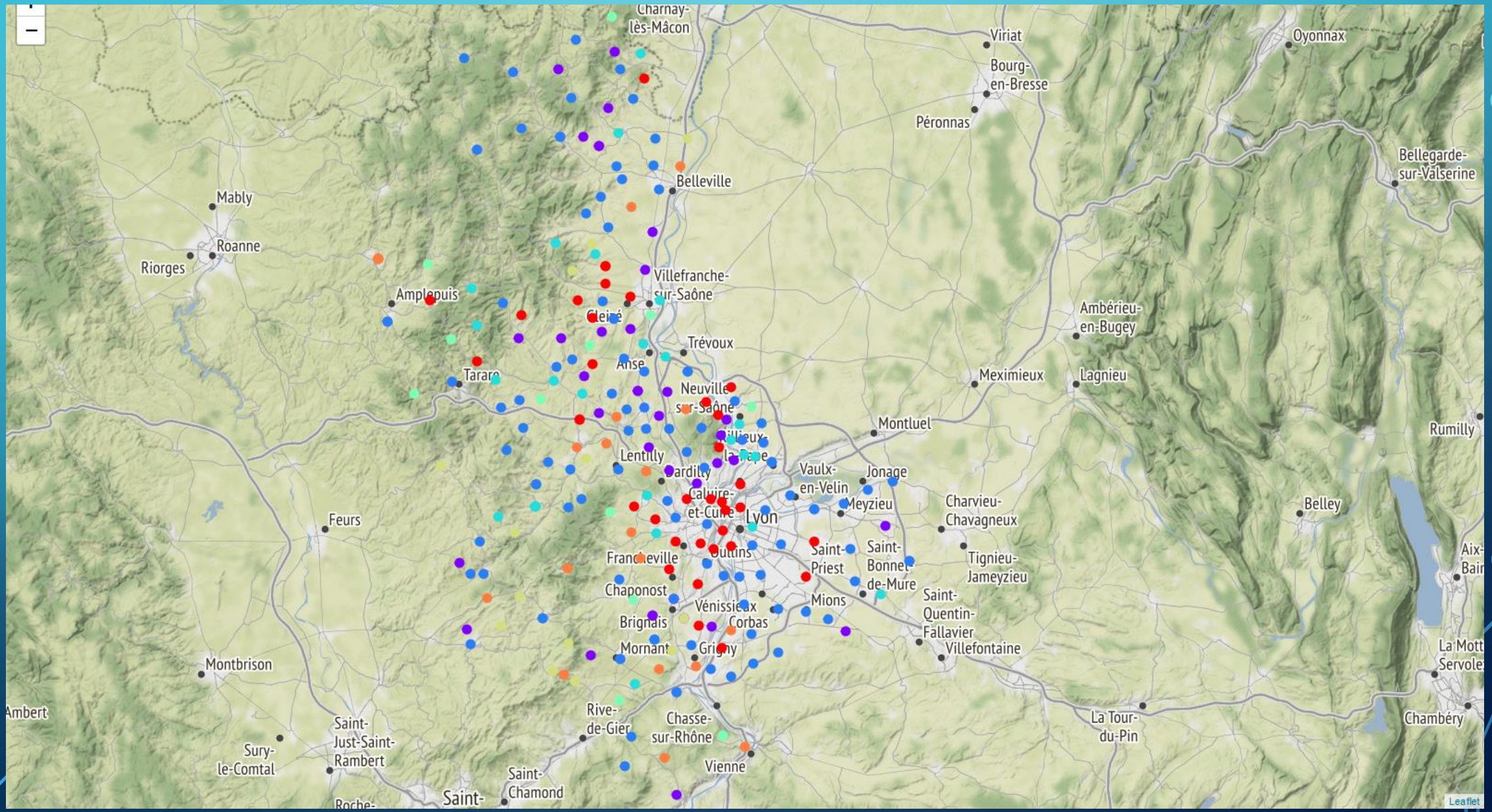
DATA

We will use a dataset containing lyon neighborhood (from https://www.data.gouv.fr/fr/organizations/grand-lyon/) and capital world cities location (from https://www.kaggle.com/nikitagrec/world-capitals-gps#concap.csv) to request venues in a 1000 meters range using Foursquare API with the aim to group the data and find similarities between World capitals and Lyon neighborhood 10 most common venues using k-means clustering.

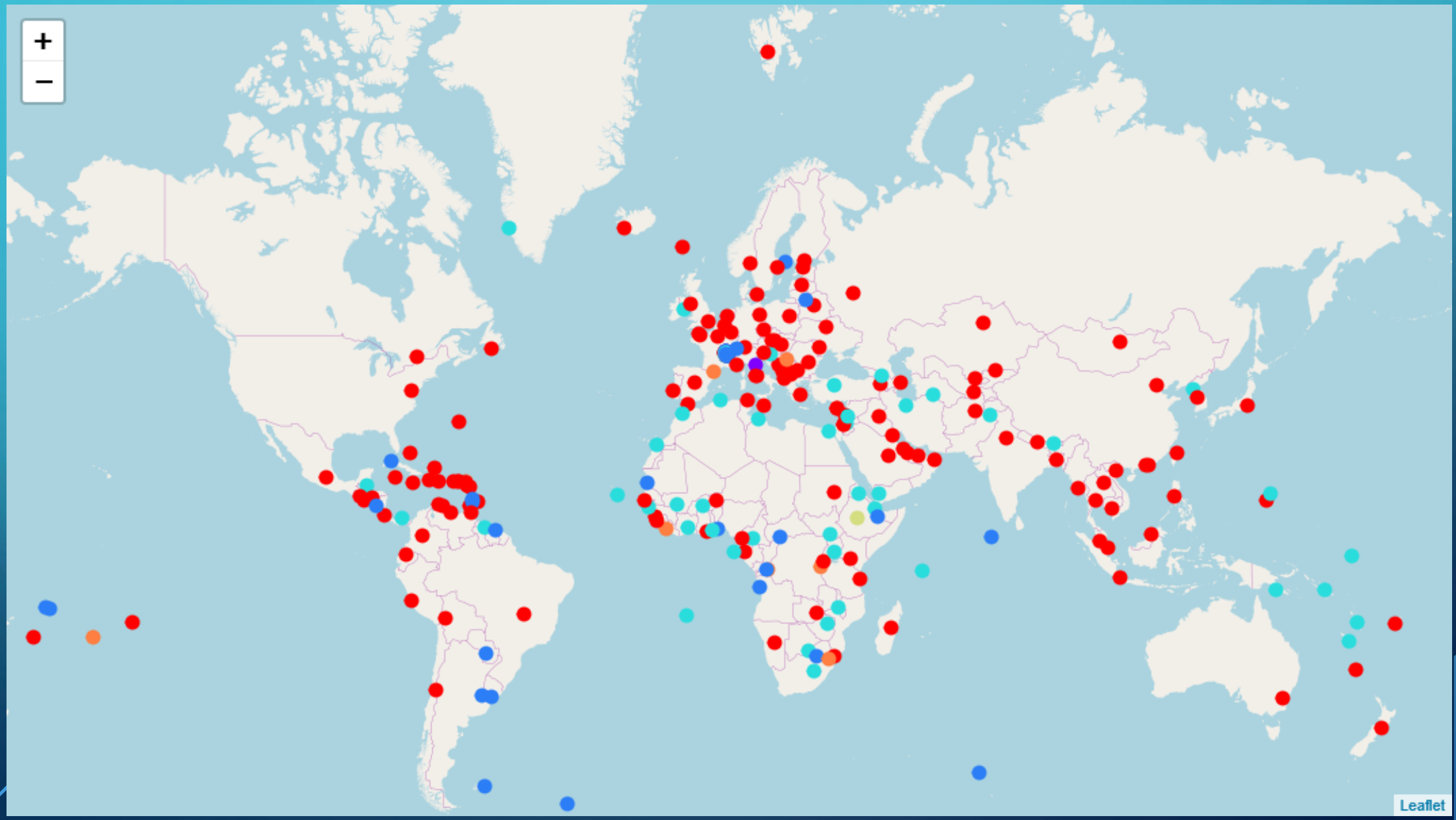
MOST COMMON VENUES IN LYON NEIGHBORHOOD AND WORLD CAPITALS



CLUSTERISATION LYON NEIGHBORHOOD VENUES



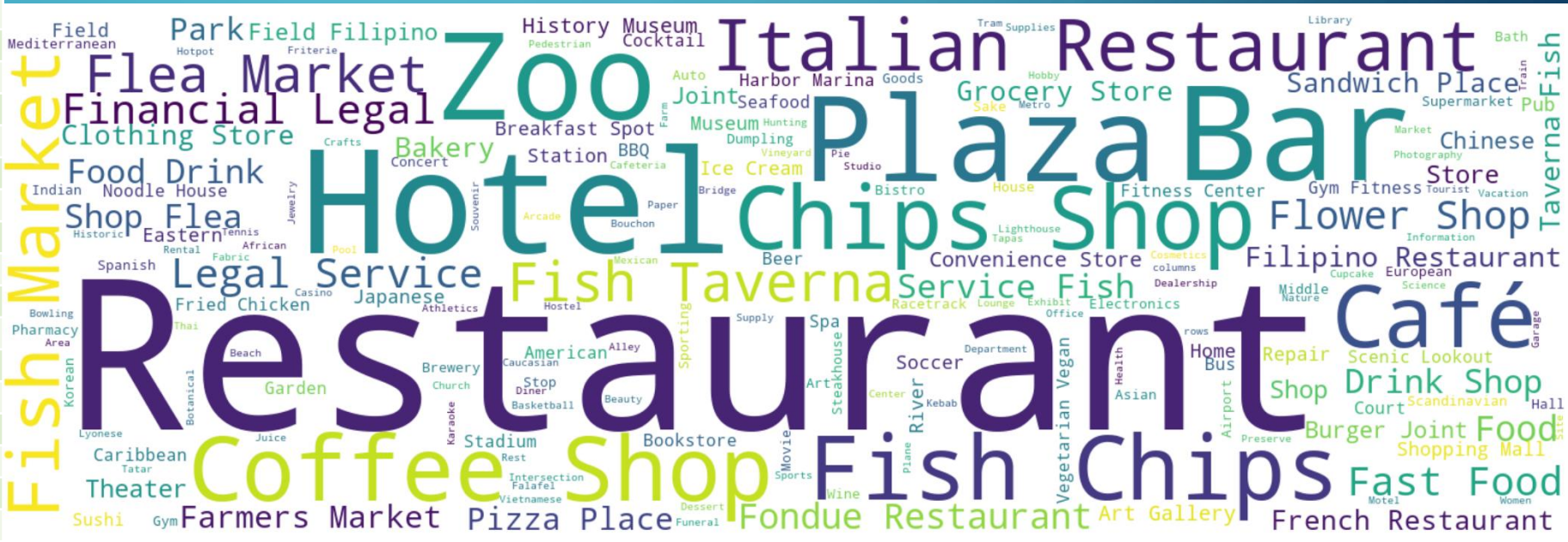
CLUSTERISATION WORLD CAPITAL VENUES



CLUSTERISATION LYON NEIGHBORHOOD AND CAPITAL VENUES

IF STAFF COME FROM		STAFF CAN BE RELOCATED TO
RIYADH		LA ROCHE
FREETOWN		LYON 01
SINGAPORE		LYON 02
PHILIPSBURG		LYON 04
BRATISLAVA		LYON 06
LJUBLJANA		LYON 07
SEOUL		LYON 09
MADRID		STE FOY LES LYON
KHARTOUM		ECULLY
LONGYEARBYEN		ST CLEMENT SUR VALSONNE
STOCKHOLM		ST GERMAIN NUELLES
TAIPEI		ST GERMAIN NUELLES
DUSHANBE		ST GENIS LAVAL
DAR ES SALAAM		CURIS AU MONT D OR
BANGKOK		ST ROMAIN AU MONT D OR
BANJUL		STE CONSORCE
NUKU'ALOFA		ST GENIS LES OLLIERES
PORT OF SPAIN		CALUIRE ET CUIRE
TUNIS		FRANCHEVILLE
GRAND TURK		LA MULATIERE
KYIV		SEREZIN DU RHONE
ABU DHABI		CHARLY
LONDON		GLEIZE
WASHINGTON		RONNO
CHARLOTTE AMALIE		LA ROCHE
TASHKENT		FRONTENAS
VATICAN CITY		CHAPONOST
CARACAS		ST JULIEN
HANOI		DENICE
LUSAKA		COGNY

MAIN CLUSTER 1


Restaurant
Hotel
Plaza Bar
Zoo
Italian Restaurant
Chips Shop
Café
Coffee Shop
Fish Chips
Flea Market
Financial Legal
Fish Market
Fish Taverna
Service Fish
Legal Service
Flower Shop
Filipino Restaurant
Convenience Store
Grocery Store
Sandwich Place
Food Drink
Shop Flea
Clothing Store
Bakery
Breakfast Spot
Joint
Seafood
Harbor Marina
Museum
Station
Ice Cream
Fitness Center
Gym Fitness
Chinese
Store
Drink Shop
Burger Joint
Food
Fast Food
Shopping Mall
French Restaurant
Farmers Market
Pizza Place
Fondue Restaurant
Art Gallery
Park
Field Filipino
History Museum
Cocktail
Field Mediterranean
Flea Market
Indian
Noodle House
Eastern
Spanish
Japanese
Fried Chicken
American
Brewery
Garden
Caribbean
Theater
Stadium
Bookstore
Soccer
Home
Repair
Scenic Lookout
Shop
Court
Scandinavian
Vegetarian Vegan
Asian
Bus
River
Sushi
Gym
Dessert
Wine
Bistro
Beer
Spa
Pharmacy
Bowling
Beach
Korean
Lyonese
Tatar
Vietnamese
Falafel
Intersection
Rest
Juice
Karaoke
Botanical
Church
Stop
Diner
Basketball
Beauty
Caucasian
Alley
Sporting
Supply
Department
Racetrack
Lounge
Exhibit
Office
Electronics
Dealership
Cosmetics
columns
Cupcake
European
Science
Middle
Nature
Information
Tourist
Vacation
Gym
Fitness
Lighthouse
Tapas
House
Bridge
Paper
Bouchon
Arcade
Souvenir
Jewelry
Concert
Cafeteria
Pool
Rental
African
Fabric
Tennis
Historic
Crafts
Farm
Auto
Joint
Dumpling
Vineyard
Pie
Studio
Hunting
Museum
Breakfast Spot
BBQ
Sake
Metro
Goods
Harbor Marina
Seafood
Supplies
Tram
Library
Bath
Fish
Taverna
Pub
Supermarket
Train
Market
Photography
Hobby
Pedestrian
Hotpot
Friterie
Mexican
Hostel
Athletics
Casino
Thai
Area
Pharmacy
Bowling
Korean
Botanical
Lyonese
Tatar
Vietnamese
Falafel
Intersection
Rest
Juice
Karaoke

CLUSTERISATION LYON NEIGHBORHOOD AND CAPITAL VENUES

IF STAFF COME FROM		STAFF CAN BE RELOCATED TO
PAGO PAGO		ST MARTIN DE CORNAS
LUANDA		VEISSIEUX
BUENOS AIRES		LYON 05
PORTO-NOVO		LYON 08
BANGUI		VILLEURBANNE
HAVANA		VAULX EN VELIN
STANLEY		COLOMBIER SAUGNIEU
PORT-AUX-FRAN,AIS		LYON ST EXUPERY
VILNIUS		RILLIEUX LA PAPE
MALE		CREPIEUX LA PAPE
NOUAKCHOTT		LE MOLARD
MANAGUA		DECINES CHARPIEU
ASUNCION		TASSIN LA DEMI LUNE
BRAZZAVILLE		TARARE
GUSTAVIA		ST FONS
CASTRIES		VENISSIEUX
KINGSTOWN		CHEVINAY
HARGEISA		SAVIGNY
PRETORIA		SAIN BEL
KING EDWARD POINT		ST PIERRE LA PALUD
PARAMARIBO		LENTILLY
BERN		CERCIE
MONTEVIDEO		ST LAGER
MATA-UTU		LA CALONNIERE
PAGO PAGO		ST MARTIN DE CORNAS
LUANDA		VEISSIEUX
BUENOS AIRES		LYON 05
PORTO-NOVO		LYON 08
BANGUI		VILLEURBANNE

MAIN CLUSTER 2

CLUSTERISATION LYON NEIGHBORHOOD AND CAPITAL VENUES

IF STAFF COME FROM		STAFF CAN BE RELOCATED TO
ALGIERS		POMERIEUX
GEORGETOWN		LURCIEUX
TEHRAN		POMERIEUX
DUBLIN		LYON 03
AMMAN		DIEME
MASERU		FLEURIEU SUR SAONE
TRIPOLI		FONTAINES SUR SAONE
LILONGWE		ROCHETAILLEE SUR SAONE
BAMAKO		MARCY L ETOILE
RABAT		CRAPONNE
YAREN		CHESSY
NOUMEA		VILLEFRANCHE SUR SAONE
PYONGYANG		BLACE
SAIPAN		VAUX EN BEAUJOLAIS
ISLAMABAD		ANSE
PANAMA CITY		AMBERIEUX D AZERGUES
PORT MORESBY		DAREIZE
JAMESTOWN		SATHONAY CAMP
SAO TOME		LEGNY
VICTORIA		LES ROCHES
HONIARA		LA GIRAUDIERE
JUBA		LA BREVENNE
DAMASCUS		BESSENAY
LOME		BRULLIOLES
ANKARA		ST ANDEOL LE CHATEAU
ASHGABAT		ST LAURENT DE MURE
KAMPALA		JULIENAS
PORT-VILA		ST JUST D AVRAY
EL-AAIUN		VILLIE MORGON

MAIN CLUSTER 3

Thank you !