

A decorative graphic on the left side of the slide consisting of white and light blue lines that resemble a circuit board or a stylized tree. The lines are vertical and horizontal, with small circles at the ends, creating a complex, branching pattern.

GUATEMALA SHOPPING MALL CLASSIFICATION

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THE PROBLEM

- Covid19 in Guatemala
- Crowding as a key point for contagion
- Supply chain in Guatemala out of stock
- Poor accessibility to basic insumes

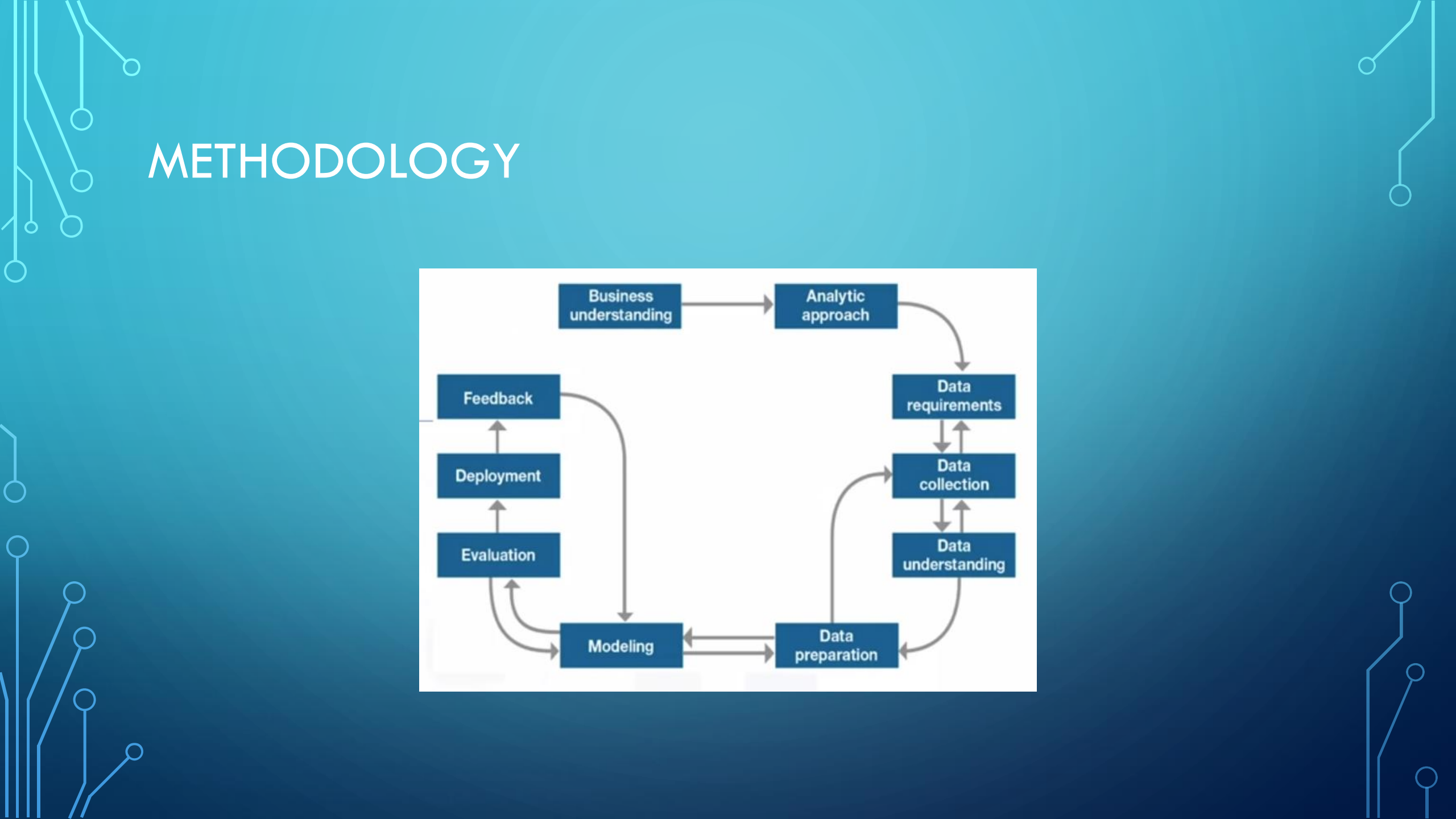
DATA

Coordenadas de ciudades de Guatemala

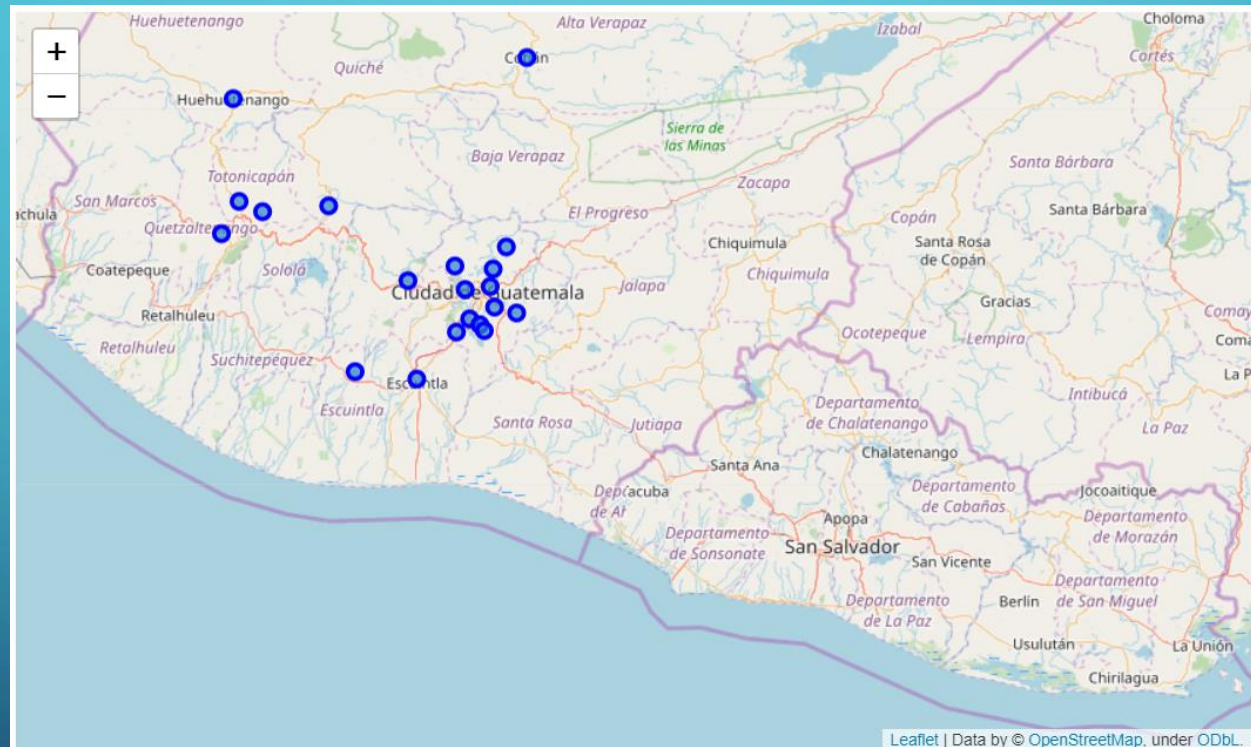
Ciudad	Coordenadas
Ciudad de Guatemala	14.6407204, -90.5132675
Mixco	14.6333303, -90.6063919
Villa Nueva	14.5269403, -90.5875015
Petapa	14.50278, -90.5516663
San Juan Sacatepéquez	14.7188902, -90.6441727
Quetzaltenango	14.8347197, -91.5180588
Villa Canales	14.48139, -90.5316696
Escuintla	14.3050003, -90.7850037

METHODOLOGY

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graph TD; BU[Business understanding] --> AA[Analytic approach]; AA --> DR[Data requirements]; DR <--> DC[Data collection]; DC --> DU[Data understanding]; DU --> DP[Data preparation]; DP --> M[Modeling]; M --> E[Evaluation]; E --> D[Deployment]; D --> F[Feedback]; F --> M; M <--> DP; E <--> M;
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UNDERSTANDING DATA



DATA PREPARATION

Split coordinates column, because atomicity is needed

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[21]:
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	Ciudad	Coordenadas
0	Ciudad de Guatemala	14.6407204, -90.5132675
1	Mixco	14.6333303, -90.6063919
2	Villa Nueva	14.5269403, -90.5875015
3	Petapa	14.50278, -90.5516663
4	San Juan Sacatepéquez	14.7188902, -90.6441727

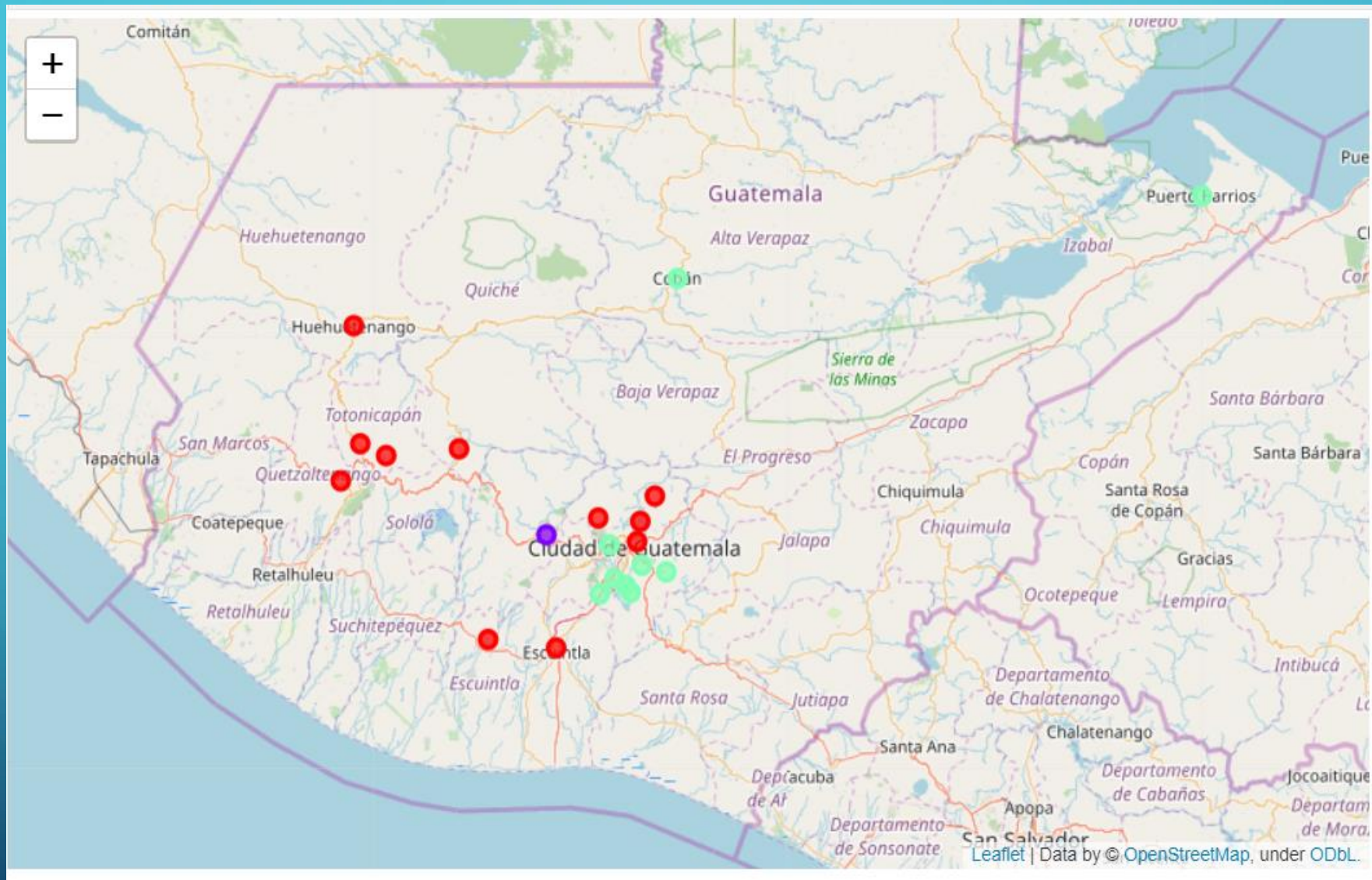
Convert to:

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[22]:
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	Neighborhood	Latitude	Longitude
0	Ciudad de Guatemala	14.64072	-90.513267
1	Mixco	14.63333	-90.606392
2	Villa Nueva	14.52694	-90.587502
3	Petapa	14.50278	-90.551666
4	San Juan Sacatepéquez	14.71889	-90.644173

MODELING

	Neighborhood	Latitude	Longitude	Cluster Labels	Shopping Mall
16	Puerto Barrios	15.72778	-88.594437	2	0.083333
17	San Francisco El Alto	14.95000	-91.449997	0	0.000000
18	Cobán	15.47083	-90.370827	2	0.083333
19	San José Pinula	14.54611	-90.411392	2	0.106383
20	San Pedro Ayampuc	14.78667	-90.451111	0	0.000000





THANK YOU