

# Business Travel Analysis 2023

## Project 3

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# The case study

The case study under consideration pertains to a Mexican publicly-oriented organization, wherein the optimal execution of its operational duties necessitates the mobility of its personnel across the national expanse. The prudent oversight of budgetary allocations and the diligent accountability for directorates, units, and associated concepts assume significant importance for the organizational leadership, as it must be reported to other public institutions, specifically the Treasury in order to comply with current regulations.

This entity comprises distinct directorates, each further subdivided into multiple units, culminating in a total of 36 such units, which shall constitute the focal point of our analytical examination. The enumerated units are delineated as follows:

Dirección general	Crédito	Sistemas	Dirección de regionales
Riesgos	Intermediarios financieros	Operaciones	Noroeste
Control	Dirección de finanzas	Dirección administración	Norte
Auditoría	Planeación corporativa	Recuperación	Occidente
Estrategia	Tesorería	Administración	Sur
Dirección de inteligencia	Dirección de negocios	Dirección de órgano interno	Sureste



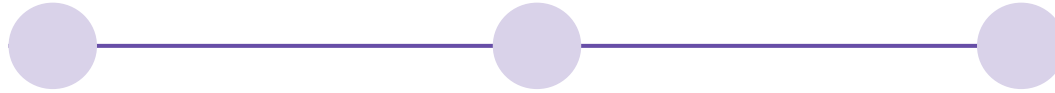
# The case study

Evaluación sectorial	Programas y proyectos	Desarrollo y gestión
Medio ambiente	Atención corporativa	Auditoria interna
Dirección de crédito	Productos y servicios	Responsabilidades
Monitoreo	Dirección de operaciones	Quejas

The units and pertinent information within the analysis are presented in Spanish, aligning with the authentic nature of the case study, intended to bolster substantive real-world reports.



# Challenges



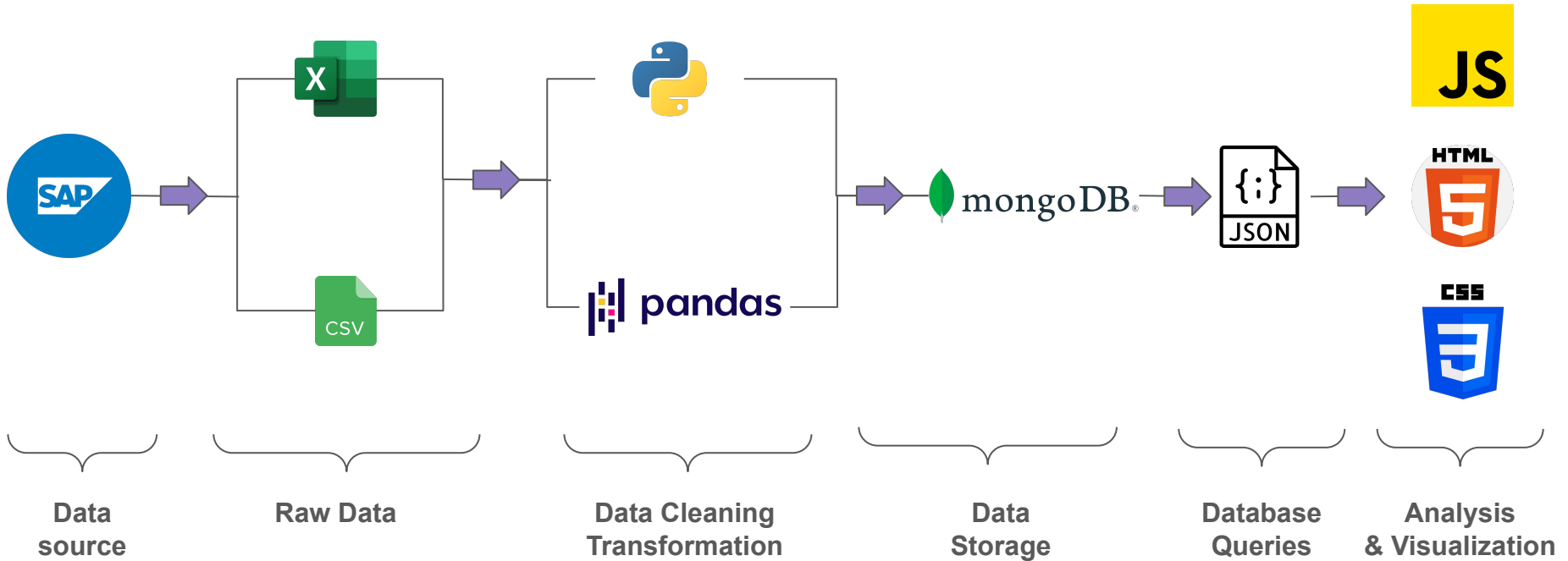
The challenge in our data management arises from its exclusive reliance on Excel, demanding manual reworking for each new report.

The absence of dynamic presentation hampers the clarity of our reports, leading to a deceleration in decision-making processes.

Furthermore, the complexity of our data management system makes it arduous to explore innovative analytical approaches.



# Our solution: Data pipeline



# Business Travel Analysis 2023: Web page

```
logic.js x index.html style2.css
Dany branch > project3-DMZ > static > js > logic.js > optionChanged > then() callback
1
2 let lineChart = null
3 let map = L.map("map", {
4   center: [24.0, -102.145],
5   zoom: 5
6 })
7
8 L.tileLayer('https://{s}.tile-cyclosm.openstreetmap.fr/cyclosm', {
9   maxZoom: 20,
10  attribution: 'a href="https://github.com/cyclosm/cyclosm-ca'
11 })
12 .addTo(map)
13
14 let dropdownMenu = d3.select("#selDataset")
15 let markersLayer = L.layerGroup()
16 map.addLayer(markersLayer)
17
18 function init(){
19   optionChanged('Total')
20 }
21
22 optionChanged('Total')
23
24 d3.json('static/js/data.json').then(data => {
25
26   /////////////////////////////////////////////////// Populate the Menu ///////////////////////////////////
27   let groupedData = d3.groups(data, d => d.unidad)
28
29   let uniqueValues = groupedData.map(function(d) {
30     return d[0]
31   })
32
33   for(let i = 0; i < uniqueValues.length; i++){
34     dropdownMenu.append("option").text(uniqueValues[i]).prop
35   }
```

```
logic.js x index.html style2.css
Dany branch > project3-DMZ > index.html > html > head
1
2 <!DOCTYPE html>
3 <html lang="en">
4 <head>
5   <!-- Viewport Meta Tag -->
6   <meta name="viewport" content="width=device-width, initial-s
7
8   <!-- Leaflet CSS -->
9   <link rel="stylesheet" href="https://unpkg.com/leaflet@1.9.4
10     integrity="sha256-p4NxAoJBhIIN+hmNhrzRCf9tD/miZyohS5ob
11     crossorigin="" />
12
13   <!-- Our CSS -->
14   <link rel="stylesheet" type="text/css" href="static/css/styl
15
16   <!-- Google Fonts -->
17   <link rel="stylesheet" href="https://fonts.googleapis.com/cs
18
19 </head>
20 <body>
21
22   <!-- Header Ribbon -->
23   <div class="ribbon">
24
25     <p>This is a bootcamp project about a Mexican company, r
26   </div>
27
28   <header>
29     Análisis de viajes 2023</h1>
31   </header>
```

```
logic.js x index.html style2.css x
Dany branch > project3-DMZ > static > css > style2.css > ...
1
2 body {
3   background-color: #F0F8FF;
4   font-family: 'Helvetica', sans-serif;
5   text-align: center;
6 }
7
8 .bigger-heading {
9   font-size: 3em; /* Adjust the font size as needed */
10 }
11
12 .ribbon {
13   background-color: #72A0C1;
14   color: white;
15   text-align: center;
16   padding: 10px;
17   font-size: 1.2em;
18 }
19
20 .custom-dropdown {
21   font-size: 16px;
22   height: 40px; /* Adjust the height as needed */
23   padding: 8px; /* Adjust the padding as needed */
24   margin-bottom: 20px;
25 }
26
27 .travel-icon {
28   width: 300px;
29   height: 200px;
30   margin-right: 10px;
31   float: left;
32 }
33
34 .header-title {
35   font-family: 'Helvetica', sans-serif;
36   font-size: 5em;
37   text-align: center;
```



# Conclusions

## General conclusions:

- The information analysis enhances time and resource efficiency in reporting and results presentation.
- We advocate an optimized, interactive format for stakeholders, ensuring leaders access easily digestible information for prompt decision-making.
- Due to positive interest, a second release is under consideration, incorporating additional optimizations and enhanced report automation.

## Data conclusions:

- From July, expenses rose in tandem with the business's budget increase.
- D9 representing nearly half of analyzed resources, stands as the organization's highest spender.
- Predominantly, per diem expenses (e.g., food and lodging) constitute the highest expenditure category.



The background is a repeating pattern of travel-related icons in a light purple color on a white background. The icons include airplanes, palm trees, suns, flip-flops, suitcases, compasses, hot air balloons, ships, anchors, and location pins, all connected by dashed lines.

**Thanks!**