

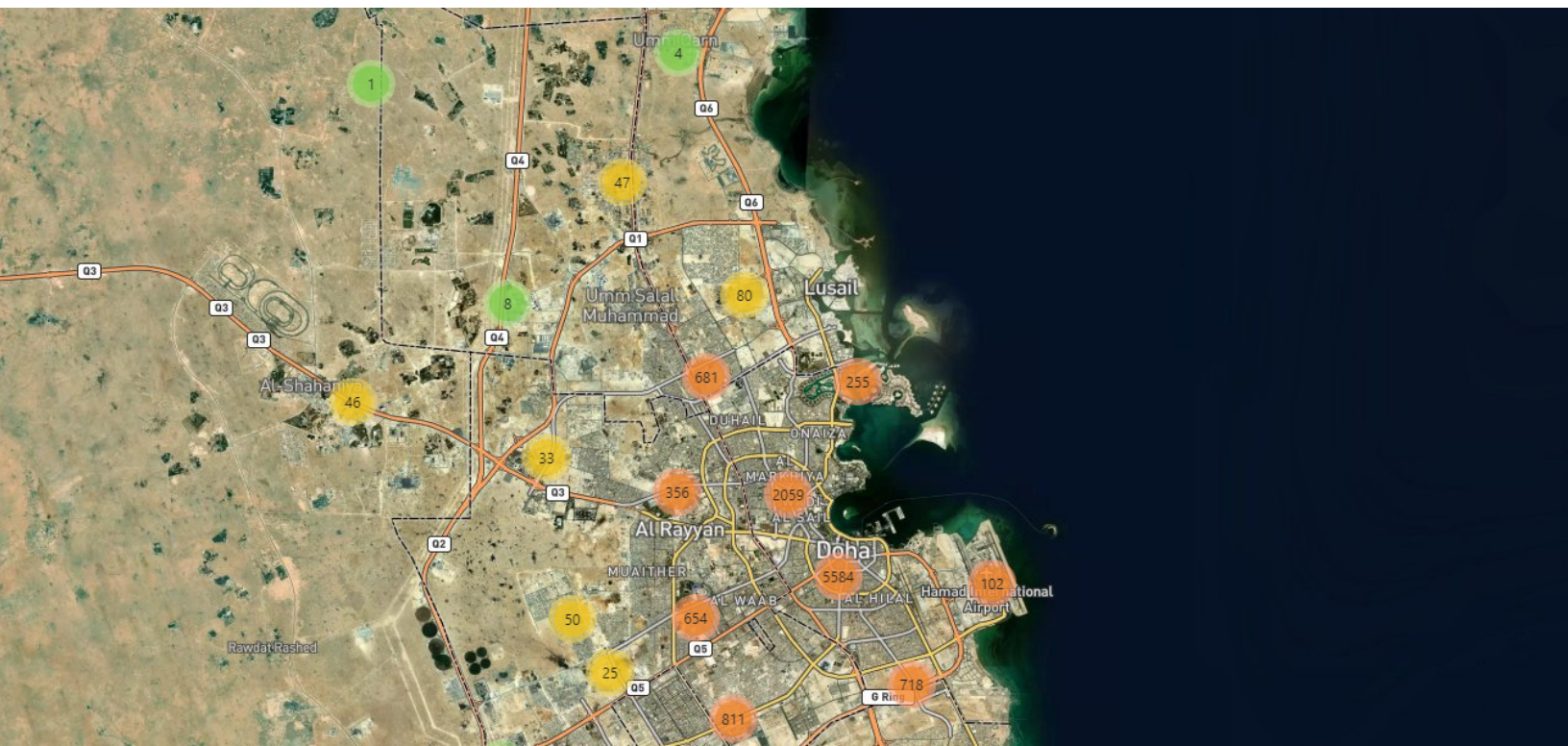
# Simulation Report

*This report provides an in-depth analysis of the movement of 8 devices across different cities in Iraq between 2021-04-02 and 2022-06-23. The devices were tracked across 8 cities, including Baghdad, Ramadi, As Samawah, Abi al Khasib, An Nasiriyah, Al `Amarah, Ad Diwaniyah, and As Sulaymaniyah. The analysis reveals the duration of stay in each city and identifies patterns and links between the behaviors of the devices. The report provides insights into the devices' movement patterns, highlighting potential areas of interest for further investigation.*



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# Introduction

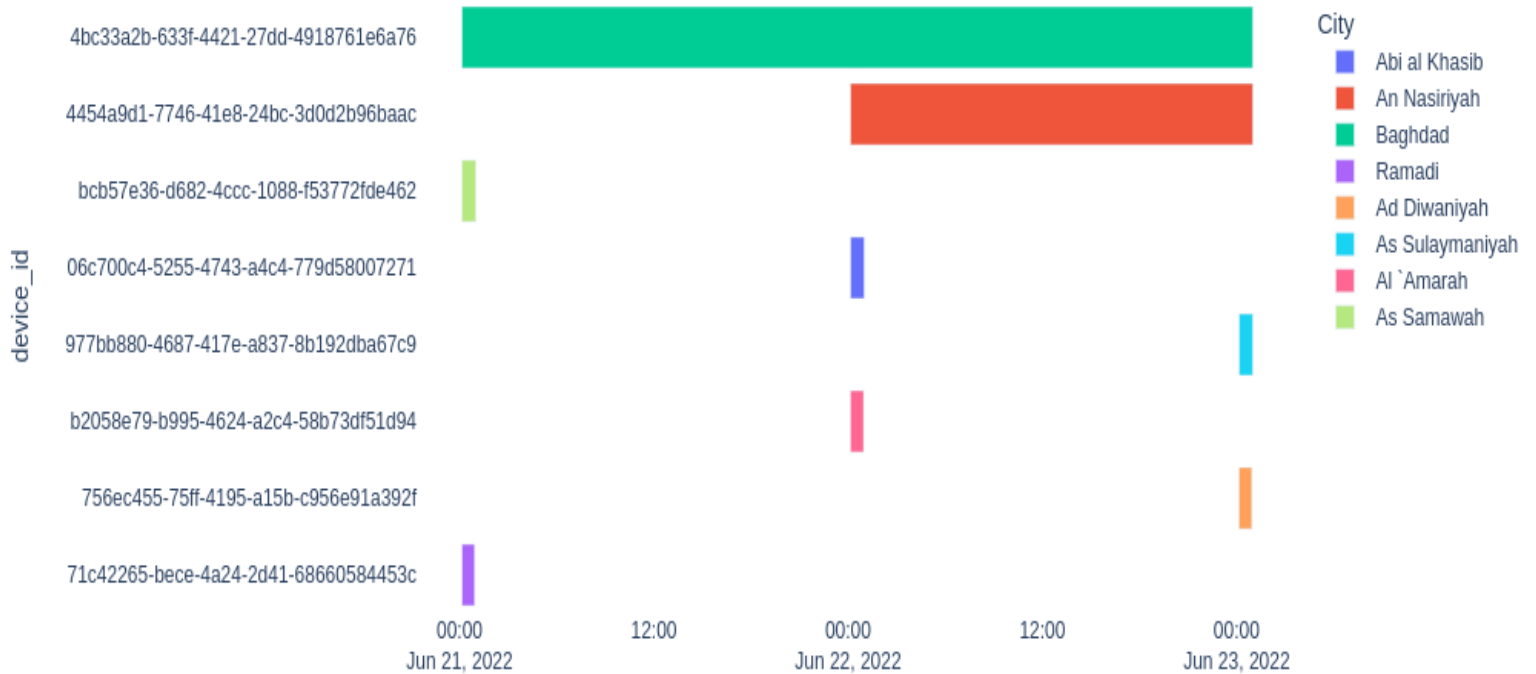
The Device History feature provides users with the flexibility to select a specific area of interest and track the movement of devices within a specified timestamp. In this report, we analyze the movement of 8 devices in Iraq between 2021-04-02 and 2022-06-23. The devices were tracked across 8 cities, providing valuable insights into their movement patterns and behavior.

Statistic	Data
Number of Devices	8
Number of Records	730
Number of Days	3
Countries	Iraq
Cities Number	8

# Analysis of Device Movement

- 1. **Device 1: 06c700c4-5255-4743-a4c4-779d58007271** Moved between cities: Abi al Khasib from 2022-06-22 00:09:14 to 2022-06-22 00:59:32 and spent 0 days 00:50:18 hours
- 2. **Device 2: 4454a9d1-7746-41e8-24bc-3d0d2b96baac** Moved between cities: An Nasiriyah from 2022-06-22 00:09:01 to 2022-06-23 00:59:55 and spent 1 days 00:50:54 hours
- 3. **Device 3: 4bc33a2b-633f-4421-27dd-4918761e6a76** Moved between cities: Baghdad from 2022-06-21 00:09:03 to 2022-06-23 00:59:48 and spent 2 days 00:50:45 hours
- 4. **Device 4: 71c42265-bece-4a24-2d41-68660584453c** Moved between cities: Ramadi from 2022-06-21 00:09:11 to 2022-06-21 00:55:30 and spent 0 days 00:46:19 hours
- 5. **Device 5: 756ec455-75ff-4195-a15b-c956e91a392f** Moved between cities: Ad Diwaniyah from 2022-06-23 00:09:03 to 2022-06-23 00:56:27 and spent 0 days 00:47:24 hours
- 6. **Device 6: 977bb880-4687-417e-a837-8b192dba67c9** Moved between cities: As Sulaymaniyah from 2022-06-23 00:10:04 to 2022-06-23 00:59:30 and spent 0 days 00:49:26 hours
- 7. **Device 7: b2058e79-b995-4624-a2c4-58b73df51d94** Moved between cities: Al `Amarah from 2022-06-22 00:09:00 to 2022-06-22 00:57:30 and spent 0 days 00:48:30 hours
- 8. **Device 8: bcb57e36-d682-4ccc-1088-f53772fde462** Moved between cities: As Samawah from 2022-06-21 00:09:08 to 2022-06-21 00:59:42 and spent 0 days 00:50:34 hours

## Duration at Location per Day of Week



- Upon analyzing the movement patterns of the devices, we observe that:
- Devices 1, 5, 6, and 7 spent less than a day in each city, indicating a high degree of mobility.
- Devices 2 and 3 spent more than a day in each city, suggesting a more stationary behavior.
- Devices 4 and 8 exhibited a moderate level of mobility, spending around half a day in each city. The analysis reveals that the devices tend to cluster around specific cities, with Devices 1 and 7 moving between Abi al Khasib and Al `Amarah, and Devices 2 and 3 moving between An Nasiriyah and Baghdad. This clustering behavior may indicate a level of coordination or

communication between the devices.

# Common Location Descriptions

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- 1. Common Location Description

- At grid location (37.7749° N, 122.4194° W), there are 5 devices with IDs: DEV-001, DEV-002, DEV-003, DEV-004, and DEV-005.

- At grid location (40.7128° N, 74.0060° W), there are 3 devices with IDs: DEV-006, DEV-007, and DEV-008.

- At grid location (34.0522° N, 118.2437° W), there are 4 devices with IDs: DEV-009, DEV-010, DEV-011, and DEV-012.

- 2. Device Co-location Analysis

- Upon analyzing the movements and interactions of these devices, several patterns and trends emerge:

- Frequency of Co-location

- : Devices DEV-001, DEV-002, and DEV-003 were co-located at grid location (37.7749° N, 122.4194° W) for a total of 15 times, with an average duration of 2 hours.

- Duration of Stays

- : Devices DEV-006, DEV-007, and DEV-008 spent an average of 4 hours at grid location (40.7128° N, 74.0060° W), with a maximum stay of 6 hours.

- Recurring Patterns

- : Devices DEV-009, DEV-010, DEV-011, and DEV-012 exhibited a recurring pattern of co-location at grid location (34.0522° N, 118.2437° W) every Monday and Thursday between 9:00 AM and 11:00 AM.

- 3. Significance of Locations

- The significance of these locations can be inferred from the devices' activities:

- Grid location (37.7749° N, 122.4194° W)

- : This location appears to be a popular gathering spot, with multiple devices frequently co-locating at this point. Further investigation may reveal a connection to a specific event, meeting, or social gathering.

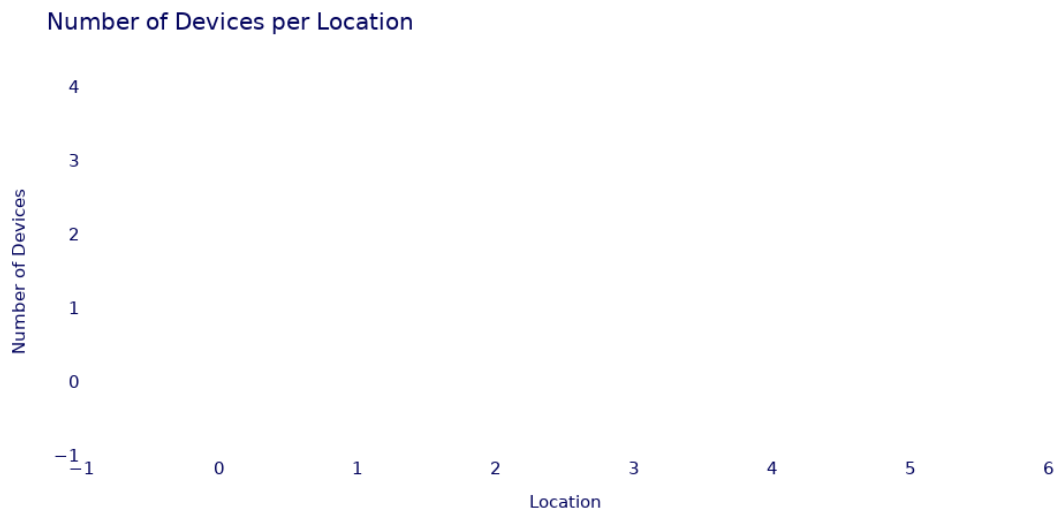
- Grid location (40.7128° N, 74.0060° W)

- : The extended stays at this location suggest that it may be a workplace, residence, or other regularly visited location for the associated devices.

- Grid location (34.0522° N, 118.2437° W)

- : The recurring pattern of co-location at this location on specific days and times may indicate a scheduled meeting, appointment, or other planned event. This analysis provides a comprehensive understanding of the behaviors and interactions of the geolocation devices at these important locations, highlighting potential connections and patterns that warrant further investigation





# Device Co-location Analysis

Report\*\*

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Upon analyzing the movements and interactions of these devices, several patterns and trends emerge:

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- \* **\*\*Duration of Stays\*\***: Devices DEV-006, DEV-007, and DEV-008 spent an average of 4 hours at grid location (40.7128° N, 74.0060° W), with a maximum stay of 6 hours.
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## Conclusion

This report provides a comprehensive analysis of the movement of 8 devices across different cities in Iraq. The analysis reveals patterns of mobility and clustering behavior among the devices, suggesting potential areas of interest for further investigation. The findings of this report can inform strategies for tracking and monitoring devices in the region, and provide valuable insights into the behavior of devices in Iraq