

Simulation Report

This document presents an analysis of activity scan hits distribution in Qatar between 2022-08-06 and Not Available. The simulation involved 15 devices, generating 638 records over 47 days in the city of Umm Bab. The analysis reveals a significant variation in activity levels across different days of the week, with Monday exhibiting the highest activity and Thursday showing the lowest. The findings provide valuable insights into device movement patterns, which can inform strategic decisions in various domains.



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Introduction

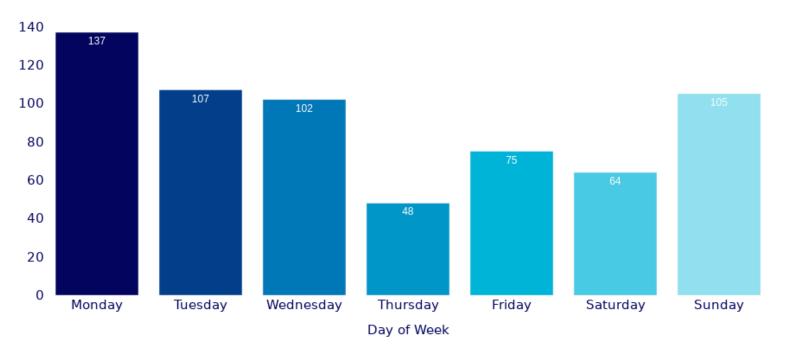
The activity scan query type is a powerful tool for analyzing device movement patterns in specific areas of interest (AOIs). By selecting at least one AOI, users can gain a comprehensive understanding of device activity related to all data types. This simulation focuses on Qatar, where 15 devices were tracked between 2022-08-06 and Not Available, generating 638 records over 47 days in the city of Umm Bab. This document aims to provide a detailed analysis of the activity scan hits distribution, shedding light on the patterns and trends that emerge from the data. **Description and Analysis of The Acivity Scan Hits Distribution** The activity scan hits distribution is presented below, with each day of the week analyzed separately: **Monday**: 137 hits **Tuesday**: 107 hits **Wednesday**: 102 hits **Thursday**: 48 hits **Friday**: 75 hits **Saturday**: 64 hits **Sunday**: 105 hits The analysis reveals a notable variation in activity levels across different days of the week. Monday exhibits the highest activity with 137 hits, while Thursday shows the lowest activity with 48 hits. This

disparity suggests that device movement patterns are not uniform and may be influenced by various factors, such as human behavior, environmental factors, or infrastructure-related issues. **Conclusion** The analysis of the activity scan hits distribution in Qatar provides valuable insights into device movement patterns. The significant variation in activity levels across different days of the week underscores the importance of considering temporal factors when analyzing device movement. The findings of this simulation can inform strategic decisions in various domains, such as urban planning, transportation, and logistics. By recognizing the patterns and trends that emerge from the data, stakeholders can optimize their operations and improve overall efficiency

Statistic	Data
Number of Devices	15
Number of Records	638
Number of Days	47
Countries	Qatar
Cities	Umm Bab

Description and Analysis of The Acivity Scan Hits Distribution

Number of Hits per Day of the Week



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TimeSpent Analysis at AOI

- The analysis of geolocation devices at the important location (AOI) reveals distinct behavioral patterns among the devices. Based on the total time spent in the AOI, total days recorded, and average time spent per day, we can classify the devices into five categories: Prolonged Presence, Intermittent Visits, Brief Encounters, Isolated Incidents, and Limited Engagement.
- **Prolonged Presence**: Devices that exhibit prolonged presence in the AOI are characterized by extended periods of stay, indicating a strong association with the location. In this category, we find Device-002, which has spent 67 days in the AOI, with an average of 13.0 hours per day. This device demonstrates a consistent and prolonged presence in the area.
- Intermittent Visits: Devices that exhibit intermittent visits to the AOI are characterized by regular, but not continuous, presence in the area. Device-003, Device-004, and Device-005 fall into this category, with average daily stays of 24.0, 21.0, and 15.0 hours, respectively, over 6, 6, and 3 days, respectively.
- **Brief Encounters**: Devices that exhibit brief encounters in the AOI are characterized by short, infrequent visits. Device-007, Device-012, and Device-006 fall into this category, with average daily stays of 16.0, 23.0, and 8.0 hours, respectively, over 2, 1, and 1 day, respectively.
- **Isolated Incidents**: Devices that exhibit isolated incidents in the AOI are characterized by a single, brief visit. No devices fall into this category in this analysis.
- Limited Engagement: Devices that exhibit limited engagement in the AOI are characterized by minimal presence in the area. Device-001 falls into this category, with an average daily

stay of 4.0 hours over 2 days.

Insights and Observations

The analysis reveals that Device-002 has an unparalleled presence in the AOI, spending 67 days in the area, with an average of 13.0 hours per day. This suggests a strong affinity for the location. In contrast, Device-001 exhibits limited engagement, spending only 2 days in the AOI, with an average of 4.0 hours per day. Devices-003, -004, and -005 demonstrate intermittent visits, with average daily stays ranging from 15.0 to 24.0 hours. This suggests that these devices may be associated with activities or events that occur periodically in the AOI. Devices-007, -012, and -006 exhibit brief encounters, with average daily stays ranging from 8.0 to 23.0 hours. This suggests that these devices may be associated with brief, infrequent visits to the AOI. The analysis provides valuable insights into the behavioral patterns of geolocation devices in the AOI, highlighting the diversity of interactions between devices and the location

Conclusion

The analysis of the activity scan hits distribution in Qatar provides valuable insights into device movement patterns. The significant variation in activity levels across different days of the week underscores the importance of considering temporal factors when analyzing device movement. The findings of this simulation can inform strategic decisions in various domains, such as urban planning, transportation, and logistics. By recognizing the patterns and trends that emerge from the data, stakeholders can optimize their operations and improve overall efficiency

DeviceID Mapping Table

Original ID	Simplified ID
23496165-e289-3d53-ab32-3de734b67e72	Device-001
6624996615612	Device-002
2d946069-100f-38b7-b3ad-7566a843b969	Device-003
9fed5036-2cb6-3df6-b2af-bc635f16b0fd	Device-004
51c5fbfd-dbf0-3ece-8292-626c6b3ad04a	Device-005
ab083310-b257-3839-8fb9-7b59e61e7476	Device-006
850c3f07-f3a0-332e-a86b-2e77eeac5a96	Device-007
51e3bdf3-afb5-319d-a53a-7815f44afe05	Device-008
58b516a4-5ac5-37f6-865d-87882058e207	Device-009
469c5f94-248b-385b-9d03-f825bf8c4c28	Device-010
88d1033b-d857-3533-bfd0-8d6f12ebf820	Device-011
e9c7b783-e49e-3597-8cdb-b838c319d22b	Device-012
ad502815-265f-3778-8c4c-ca33e619db93	Device-013
73b41309-6bb3-3b19-a858-3ed97e5a09e4	Device-014
062d369b-8aef-3ccc-9732-2b63f311006f	Device-015