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FACULTY OF ENGINEERING AND ARCHITECTURE

DEPARTMENT OF INFORMATION TECHNOLOGY (INTEC)
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LAB SESSION 04 - Time Series DB PROJECT

05/05/2025

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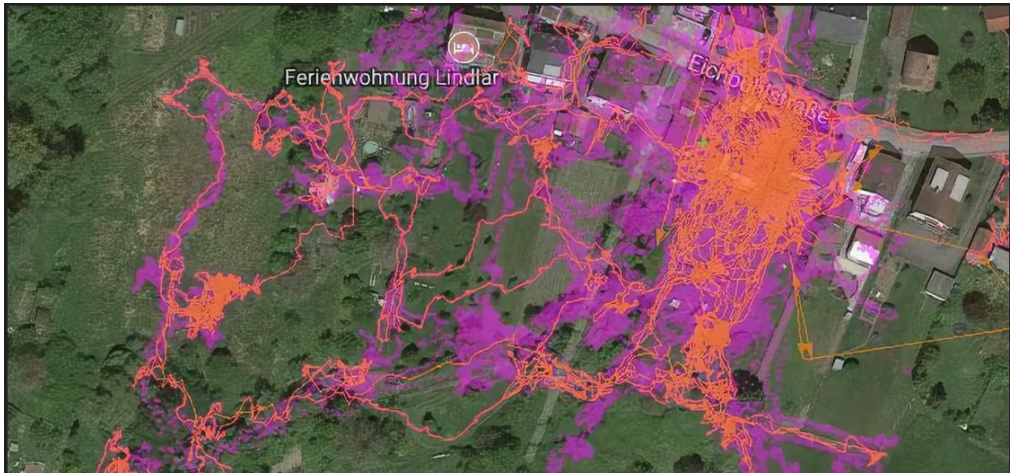
CatTracker



User wants to know where the cat has been, scoped on the hour instead of all data points.
~ Last known location of the cat, per hour.

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CatTracker

Simplified data structure, don’t use the csv from previous lab.

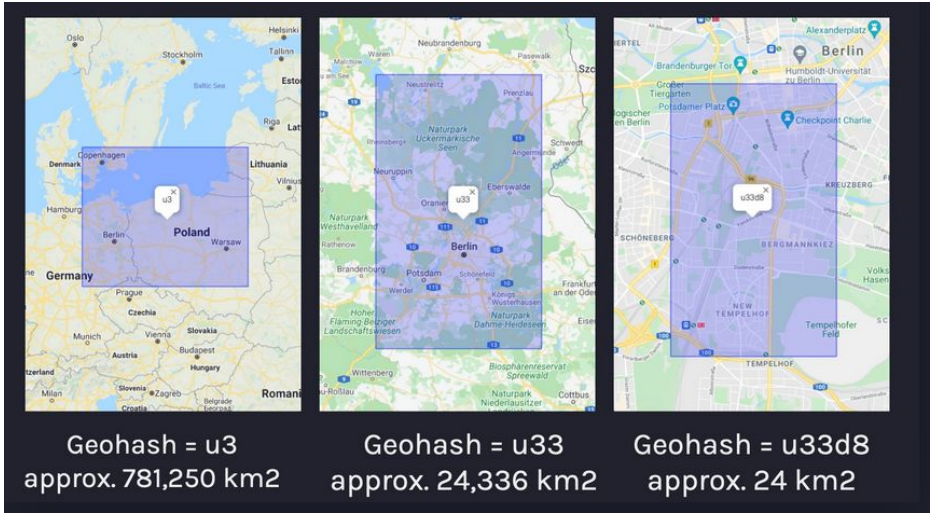
timestamp	identifier	eventid	visible	locationlong	locationlat	sensortype
2016-07-12T00:05:12.000000Z	Alice	1804624983	true	119.499161	-35.702988	gps
2016-07-12T00:15:12.000000Z	Bob	1804624983	true	19.499161	-35.702988	gps

CatTracker: geohash

QuestDB uses geohash for geospatial data.

Transform lat/long into geohash

timestamp	identifier	geohash
12T00:00:00.000000Z	Alice	1011001
12T00:00:00.000000Z	Bob	1001000
12T01:00:00.000000Z	Bob	1001000
12T12:00:00.000000Z	Bob	1011001



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CatTracker

1. Design table scheme
2. Ingest data into QuestDB with Kafka Connect
3. Creates views / queries for the use case

Use case:

Query the last whereabouts of a pet at each hour.
(complete history not just the last hour!)

CatTracker

Submit a README.md file which describes step by step how to recreate your solution.

Step 1: Table scheme

    CREATE TABLE …

Step 2: Kafka Connect config

    curl -XPUT http://…

Project

https://github.ugent.be/GDV/project-time-series-db

Deadline 11/05/2025 23:59

Tag @sborny in Github issues