

ING Analytics

Showcases, Training, Hackathon

Bart Buter - Data Engineering – ING Analytics

ITP Connect – IT Track

3-5 April 2019 Brussels

Program

	Tuesday	Wednesday	Thursday	Friday
Morning		Showcases		Hackathon with ING facilitators
Afternoon	Introduction Hackathon	Training by Go Data Driven <ul style="list-style-type: none">- Neo4j- Graphs- Network Analysis	Hackathon with facilitators	Presentations preparation and presentation
Evening	Independent Work	Independent Work	Independent Work	Travel Home

Showcases

Start	End	Topic	Presenter
8:45	9:20	Mortgage Grid Optimizer	Lofcali, Hakan Hakan.Lofcali@ing.de
9:20	9:55	Customer Dialogue Analytics	Detry, T. (Thomas) Thomas.Detry2@ing.com
9:55	10:15	Break	
10:15	10:50	Unite: Models in container land	Gungor, S. (Selin) Selin.Gungor@ing.com
10:50	11:25	Streaming Data Analytics	Nooij, E.G. de (Erik) Erik.G.de.Nooij@ing.com
11:25	12:00	Document Extraction	Babiuch-Schulze, Andreas Andreas.Babiuch-Schulze@ing.de

Imagine you are Ralf

Prosecutors Evaluating Dutch Ties to Alleged Russian Money Laundering

By Reuters
March 7, 2019



Pichi Chuang / Reuters

Prosecutors in the Netherlands said on Wednesday they are evaluating signs of Dutch involvement in a money laundering network which is alleged by a report this week to have channelled billions of euros from Russia.

Shares in Dutch banks ING and ABN Amro fell after a report by a collective of European news outlets called the Organised Crime and Corruption Reporting Project (OCCRP). Its report was based on what it said were leaked documents detailing transactions worth more than \$470 billion sent in 1.3 million transfers from 233,000 companies.



billions
data

These a launder

Mar 06 2019 08:41

Bloomberg
NEWS

Several Europe
laundering alleg
Much of the info
media outfits by
Reporting Proje
scandal are unc
UK and the Nor
banks touched

Danske Bank

Denmark's bigg
much of about
Estonian unit be
suspicious in or

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The lender is being investigated by the U.S. Departm
of Justice and the Securities and Exchange
Commission, as well as by authorities in Denmark,
Estonia, the U.K. and France.

Swedbank AB

ABN Amro Group NV

The Troika Laundromat moved
Royal Bank of Scotland, Dutch
reported. All assets, data and c
2008, ABN said.

The Dutch financial crimes poli

Cooperatieve Rabobank U.A.

About €43m were paid to the R
two boats for Russian senator
De Groene Amsterdammer. Th
outlets said.

The Dutch financial crimes poli

ING Groep NV

The Dutch bank's branch in Mc
in money laundering, the media

The Dutch financial crimes poli
ING last year paid \$900m to er

What would you want to know?

What would you want to know?

- What impact does this have on ING directly, are we mentioned?
- Are we doing business with one of the mentioned banks?
- Are our clients involved?
- If anybody is involved, how are they related to other entities?
- **Can the trainees to build a system to quickly help me answer my questions?**

ITP hackathon Brussels

Problem statement: Whenever a new financial leak is published (e.g. laundromat), Financial Institutions need to assess whether any of the entities mentioned in the news are linked to either their clients and or to counterparties related to their clients. This process is highly manual, time-consuming and has the inherent risk of not detecting the right information.

The challenge: to develop a smart solution to automate this process, specifically to produce a complete list of entities that are involved in the Laundromat scheme and identify the connections/network between them and how this evolves over time, where possible using graph databases.

Data: Data extracts from the different Laundromat projects, including the Global and Azeri Laundromat - <https://data.occrp.org/documents/10081414>

This task will involve some serious engineering work: defining what will be the connection and the entities, building a network as well as applying fuzzy matching techniques to join the transactions entities.

Bonus task:

In case of extra time available, extend the network by identifying connections with the entities included in this additional data set: Synthetic transaction dataset - <https://drive.google.com/drive/folders/1xxZotZ0wJS-fslw3s2gg0v3NsepcVqaR>

Resources

Sponsor: FEC & Regtech team

- de Rubertis, A. (Aldo) Aldo.de.Rubertis@ing.com
- Trofimenko, T. (Tamara) Tamara.Trofimenko@ing.com

Laundromats:

- <https://www.occrp.org/en/>
- <https://www.occrp.org/en/laundromat/>
- <https://www.occrp.org/en/troikalaundromat/>

Data:

- <https://data.occrp.org/documents/10081414>
- <https://drive.google.com/drive/folders/1xxZotZ0wJS-fslw3s2gg0v3NsepcVqaR>
- <https://data.occrp.org/>

Neo4j

- <https://neo4j.com>
- <https://neo4j.com/blog/analyzing-panama-papers-neo4j/>
- <https://medium.com/neo4j/graph-visualization-of-panama-papers-data-in-neo4j-9c08ca17039c>

Google Cloud:

- You will get accounts on Google GCP if you want to use this, this is not required.

Criteria

What will the judges look at?

Technical innovation (idea) Did the group come up with a good solution to the initial problem or challenge? Did they understand the problem, and did they involve, for example, multiple stakeholders?

Architecture since part of the week is about architecture. We'd also like to see you connect your solution to the architecture(s) you have seen during this week. What infrastructure, information and data architectures would be needed or connected to for your solution.

Creativity How creative has the group been in solving the challenge? Did they come up with a radical approach, or did they follow existing patterns and solutions?

Execution (demo) Does the hack work? Is the hack testable, and can the group show the minimum viable product? The hack does not have to be perfect or production ready, but does the idea come to life with their demo?

Polish (design) Did the group think about the user interface (UI) and user experience (UX)? How well designed is their demo? How are the graphics, or how is the human-computer interaction? Is it easy to use or does it require a lot of training to master the demo?

Ready for use Can the solution already be used in the business context or does it require much more work

What we hope you will learn

Business

What is practically possible in analytics in ING

What are ongoing analytics projects in ING

Awareness of Financial Economic Crime (FEC)

Understanding of what FEC in reality looks like.

Technically

Data (pre)processing

Cloud computing

Graph modeling

Graph databases

Judges

Judges

Innovation:

David Rasson (Trainee in '95)

ING Analytics / FEC & Regtech:

Aldo De Rubertis

Forensic Investigations Team (NFR&ORM/CSI):

Maaïke Visser

Prizes

Both the FEC & Regtech and the Innovation teams have expressed interest in following up about the winning solution as well as their team members.

Teams

Group 1	Group 2	Group 3
Bart	Hakan	Angel
Dimitrios	Wouter	Guy
Santiago	Yao	Wolf
Yuefeng	Deniz	Ertuğrul
Veli	Alejandro	Berk
Shefali		Kees