

Kako sam pobedio sreću?

Zašto su developerima potrebni "side" projekti?

@ JCON OpenBlend 2023

Petak 02. Jun 2023.

Portorož/Slovenija

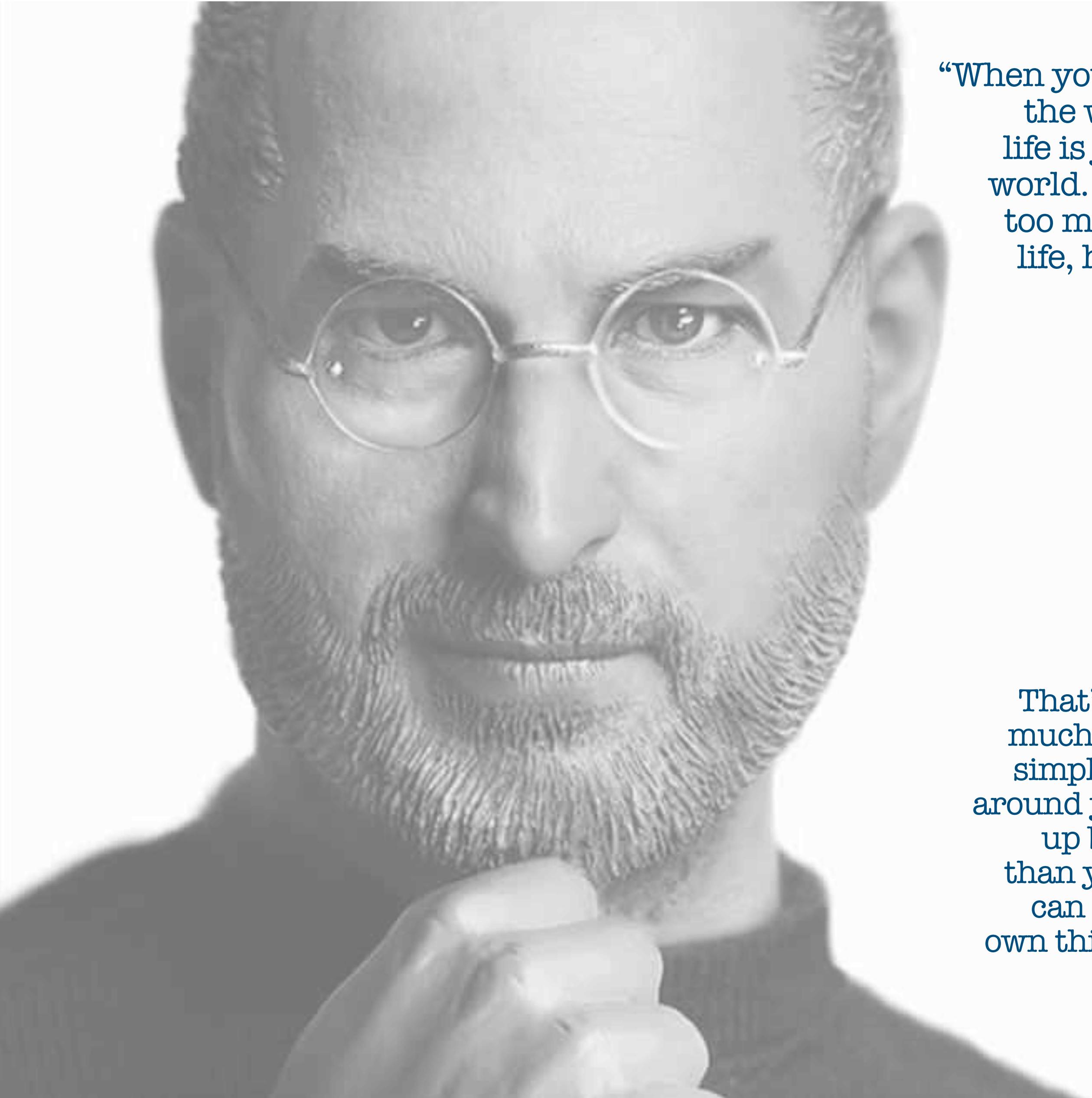
How I beat The Lady Luck?

Why developers need “side” projects?

@ JCON OpenBlend 2023

Friday, June 2nd 2023.

Portorož/Slovenia



“When you grow up you tend to get told the world is the way it is and your life is just to live your life inside the world. Try not to bash into the walls too much. Try to have a nice family life, have fun, save a little money...

That’s a very limited life. Life can be much broader once you discover one simple fact, and that is – everything around you that you call life, was made up by people who were no smarter than you. And you can change it, you can influence it, you can build your own things that other people can use.”





Aleksandar Stoisljević

it consultant @NovaCode



Accomplished individual with a strong background in Java (20+ yrs in IT business). Goal oriented, analytical and sharp individual with a lot of energy. Strong will to spread inspiration among his co-workers. Coming from city of Novi Sad, one of the biggest IT centres in Serbia, Aleksandar has been working in various environments. Professional career started as desktop developer (Delphi IDE) and joined one international company in 2007. with its headquarters in Amsterdam, The Netherlands. Primary focus were various kinds of server-side systems and web applications. As from 2015. actively learning and helping clients to prepare and adopt for the Cloud. In 2017. Joined NovaCode d.o.o. where he works nowadays as Software Architect. In the "off-working hours" father of two. Like to play table tennis.

astoisavljevic

@staleksit



Do not worry!
This IS NOT going to be another
“life coaching” sessions like:
“In pursuit of happiness”



The goal is to tickle your **imagination**,
drive you away from **comfort zone** and
initiate idea - of having **side project**.



"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022



How does work “9-to-5” looks like? *

Fixing Bugs

Maintain legacy
code base

Meetings
(dailys, refinements,
retrospectives, ...)

Work with old
libraries

Documentation

Code standard rules

* - at least, for most of us

What's
the
solution ?



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What is the
solution?

1. Continue
as is

Live your life inside given boundaries.

Live life to the fullest. Make every moment counts. Take things slower. Take care of yourself. 40 years of working service is very long period of time. This is not a sprint race. It is more like marathon.



What is the
solution?

1. Continue
as is

2. Fall-back
In love

Re-light that spark in you

Fall back in love with your main venture. Again! Back to the roots. Try to find reasons why you started career as programmer.



What is the
solution?

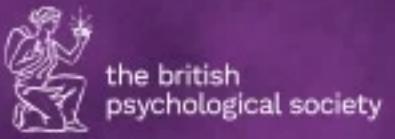
1. Continue
as is

2. Fall-back
In love

OR ...

The Positive Effect of Creative Activity on Performance at Work

Journal of Occupational and
Organizational Psychology



Original Article

Benefiting from creative activity: The positive relationships between creative activity, recovery experiences, and performance-related outcomes

Kevin J. Eschleman , Jamie Madsen , Gene Alarcon , Alex Barelka

First published: 17 April 2014 | <https://doi.org/10.1111/joop.12064> | Citations: 49

[Read the full text >](#)

PDF TOOLS SHARE

Abstract

Employees have limited personal time to engage in activities that enable them to recover from a demanding work environment and perform at a high level. To evaluate the importance of non-work creative activity, we conducted two studies that examine the relationships between non-work creative activity, recovery experiences, and performance-related behaviours at work. Study 1 included employees who provided self-rated performance-related outcomes, whereas Study 2 included employees with other-rated (co-workers and subordinates) performance-related outcomes. Creative activity was positively associated with recovery experiences (i.e., mastery, control, and relaxation) and performance-related outcomes (i.e., job creativity and extra-role behaviours). The

URL: <https://bpspsychhub.onlinelibrary.wiley.com/doi/10.1111/joop.12064>

"How I beat The Lady Luck?" - Stoislavljević Aleksandar @ 2022



**Starting a project is easier than
you can think of!**

“How I beat The Lady Luck?” - Stoisljević Aleksandar @ 2022



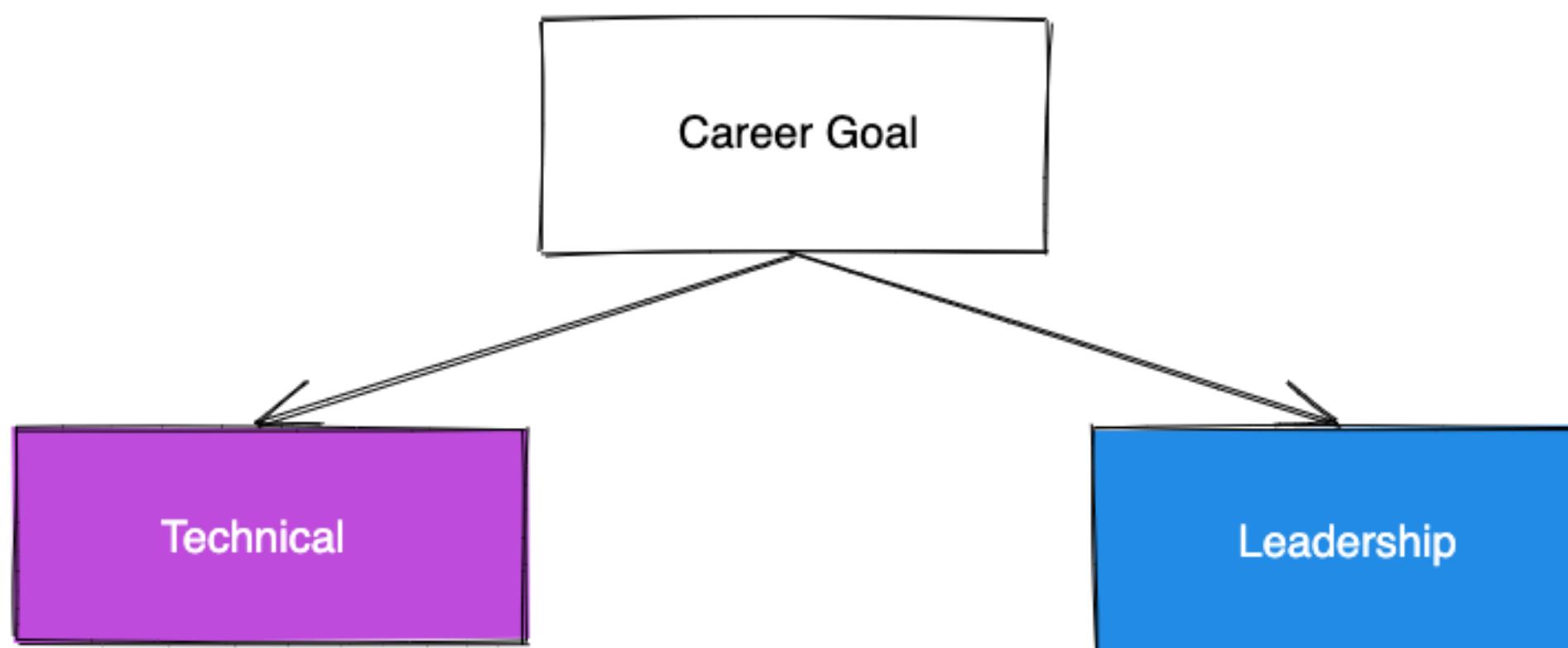
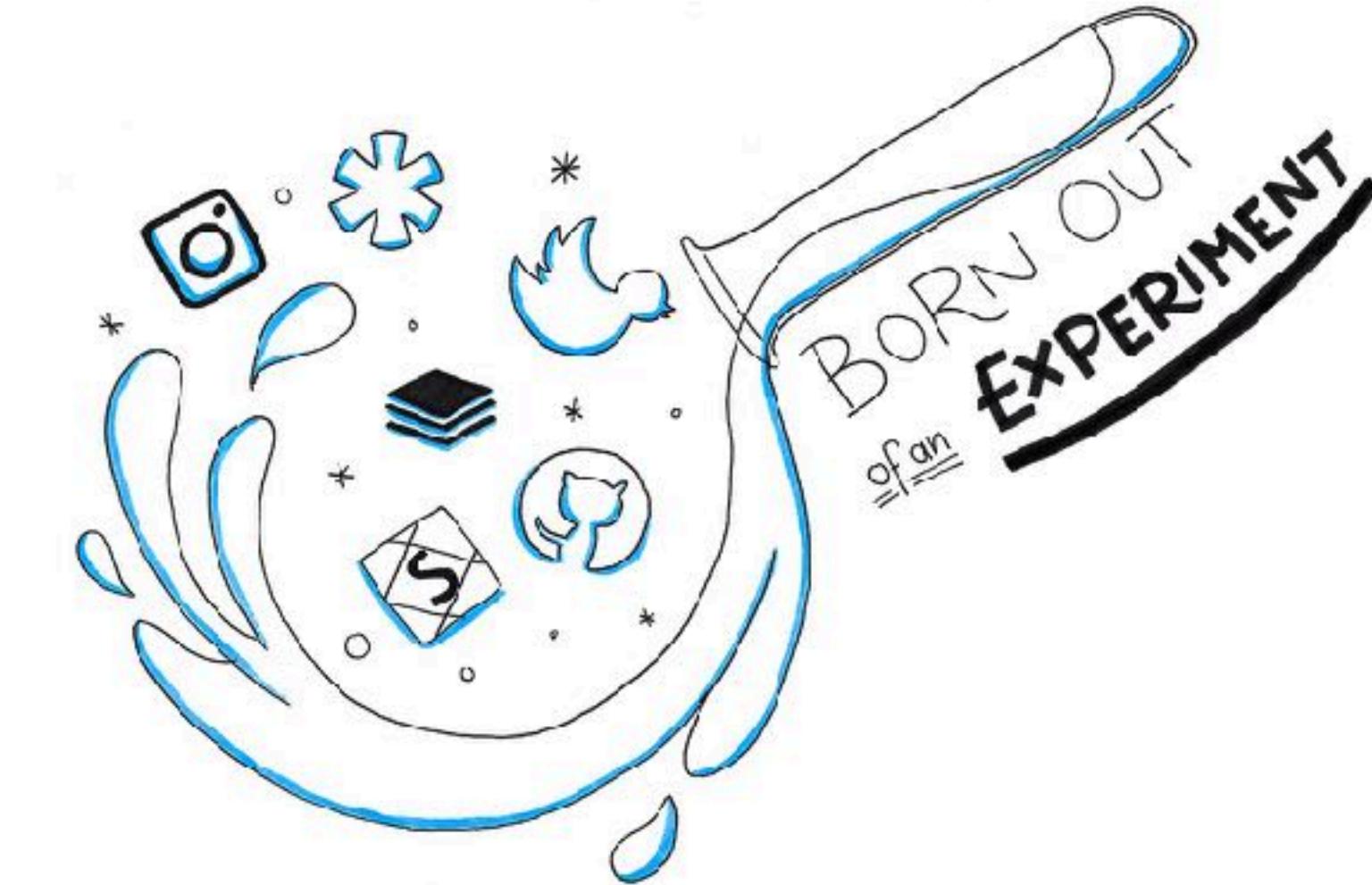
Side project

What is a side project?

“How I beat The Lady Luck?” - Stoisljević Aleksandar @ 2022



Side project is venture, activity of any kind that **SEPARATE** you from your **MAIN** line of work, from your **"9-to-5" job**, but same time helps you to **ACHIEVE** your **career end goal**.



“Eurovision Buzzer”[★]

★ Twitter data source analytics tool ©2019

It all starts with local contest, "Pesma za Evroviziju", in the beginning of March.



Me and my friends, gathers with families and while watching show, are picking our favourites and trying to predict a winner.

"How I beat The Lady Luck?" - Stoisavljević Aleksandar @ 2022



RAISE
THE
BAR



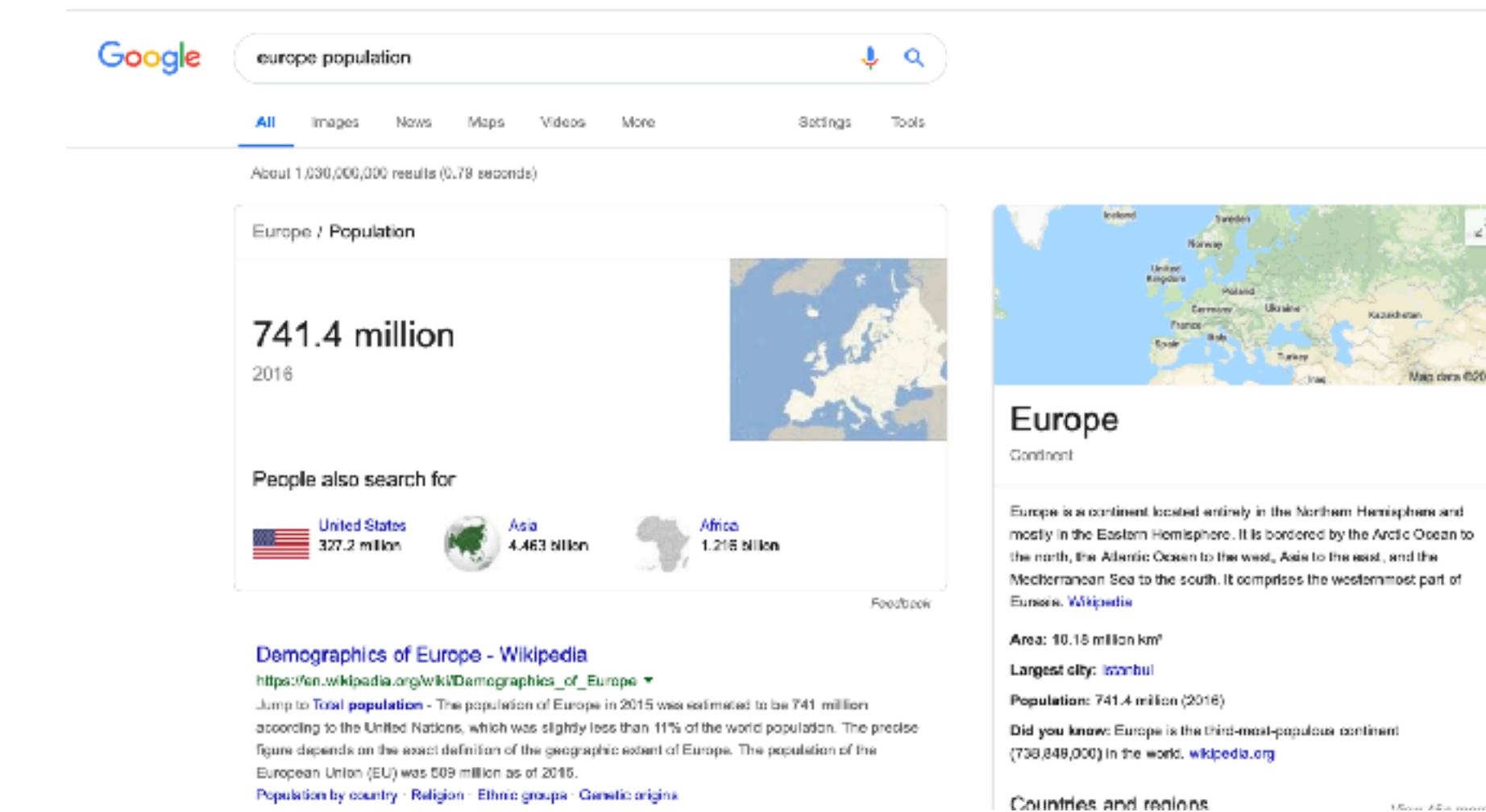
"How I beat The Lady Luck?" - Stoislavljević Aleksandar @ 2022



Is there a way to find & analyse relevant data source in order to predict the winner?

Since “Eurovision” is TV show (*more than it is pure music show!*), how many people are “engaged”? How to get that fact?

There are ~ **750 Million** people in Europe.



“How I beat The Lady Luck?” - Stoislavljević Aleksandar @ 2022



The screenshot shows the official website for the Eurovision Song Contest. At the top, there's a navigation bar with links for "Latest", "United Kingdom 2023", "History", "Countries", and "About". Below the navigation is a banner with the text "Atmosphere just before the second Semi-Final of the 2017 Eurovision Song Contest, Andres Putting".

The search results page for "eurovision" on Google shows the following information:

- Search bar:** eurovision
- Search filters:** All, Images, News, Videos, Maps, More, Settings, Tools.
- Search results count:** About 113,000,000 results (0.57 seconds).
- Top result snippet:**

Eurovision Song Contest 2019 began at 9:00 PM on **Tuesday, May 14**
and ended on **Saturday, May 18**
All times are in Central European Time.
- Feedback link:** Feedback
- Top stories section:**
 - EBU:** 182 million tune in to 64th Eurovision Song Contest as young audience numbers... (2 days ago)
 - ESCXTRA.com:** Eurovision Song Contest Watched by More Than 180 Million Viewers (Variety, 2 days ago)
 - ESCXTRA.com:** Australia: SBS confirms participation for 2020 contest (22 hours ago)
- More for eurovision:** → More for eurovision
- Eurovision Song Contest link:** https://eurovision.tv/ Official website of the Eurovision Song Contest. The latest news, photos, videos, participant info, voting results, the contest's rich history and so much more.

The screenshot shows the "Eurovision Song Contest" page on the website:

- Header:** EUROVISION SONG CONTEST
- Image:** A collage of Eurovision-related images including the logo, flags, and performers.
- Title:** Eurovision Song Contest
- Text:**

A combined **200 million viewers** are expected to tune in for the 2018 Eurovision Song Contest — and we can't wait to show them your best Eurovision posts on social media! Want to get your Tweet or Instagram-post featured in one of the three shows? Keep reading!

From today until the day of the Grand Final the Eurovision Song Contest social media team will be scouring Facebook, Twitter and Instagram for your best, brightest and funniest Eurovision posts. Whether you want to show the world your jaw-dropping collection of Eurovision memorabilia, the classy outfit you'll be wearing during the shows, selfies with Eurovision legends or just a heartfelt message of support for your favourite participant — just make sure you add the hashtag: #AllAboard.

But be warned: Being featured on one of the shows may lead to excessive amounts of views, likes, shares and new followers!

By using the hashtag #AllAboard you agree that your post may be used in one of the three shows of the 2018 Eurovision Song Contest, and that your post will be considered a 'Contribution' in accordance with the [Terms of Use](#) of Eurovision.tv.
- Feedback link:** Feedback
- Instances section:** View 60+ more

150 - 200 Million

"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022





"How I beat The Lady Luck?" - Stoislavljević Aleksandar @ 202.





SONG CONTEST
TEL AVIV 2019

Eurovision 2019 Song Contest

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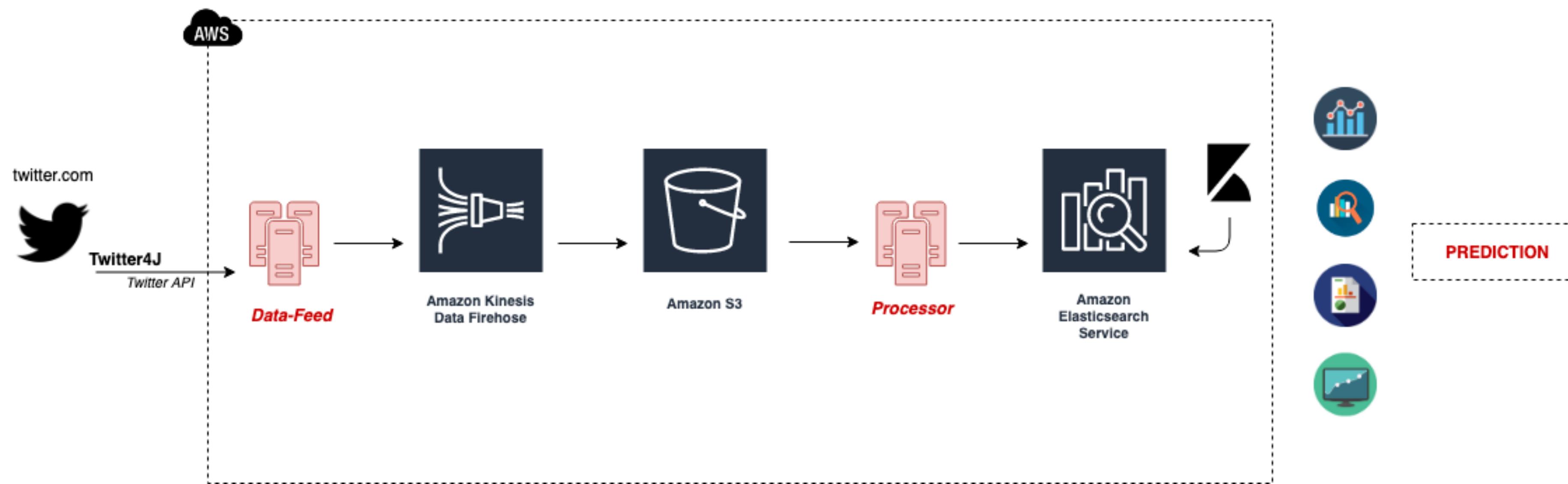
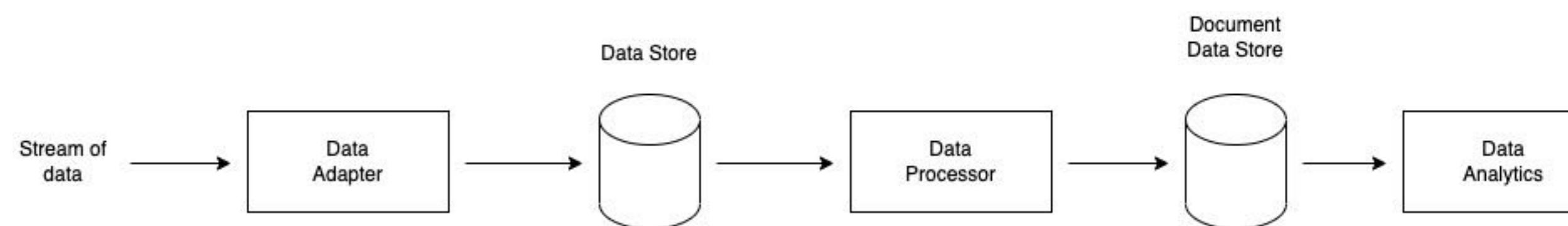




"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022



“Eurovision Buzzer” - Contextual diagram



Day #1 - Tuesday

Data Feed

C4 Model

by Simon Brown - c4model.com

I Context

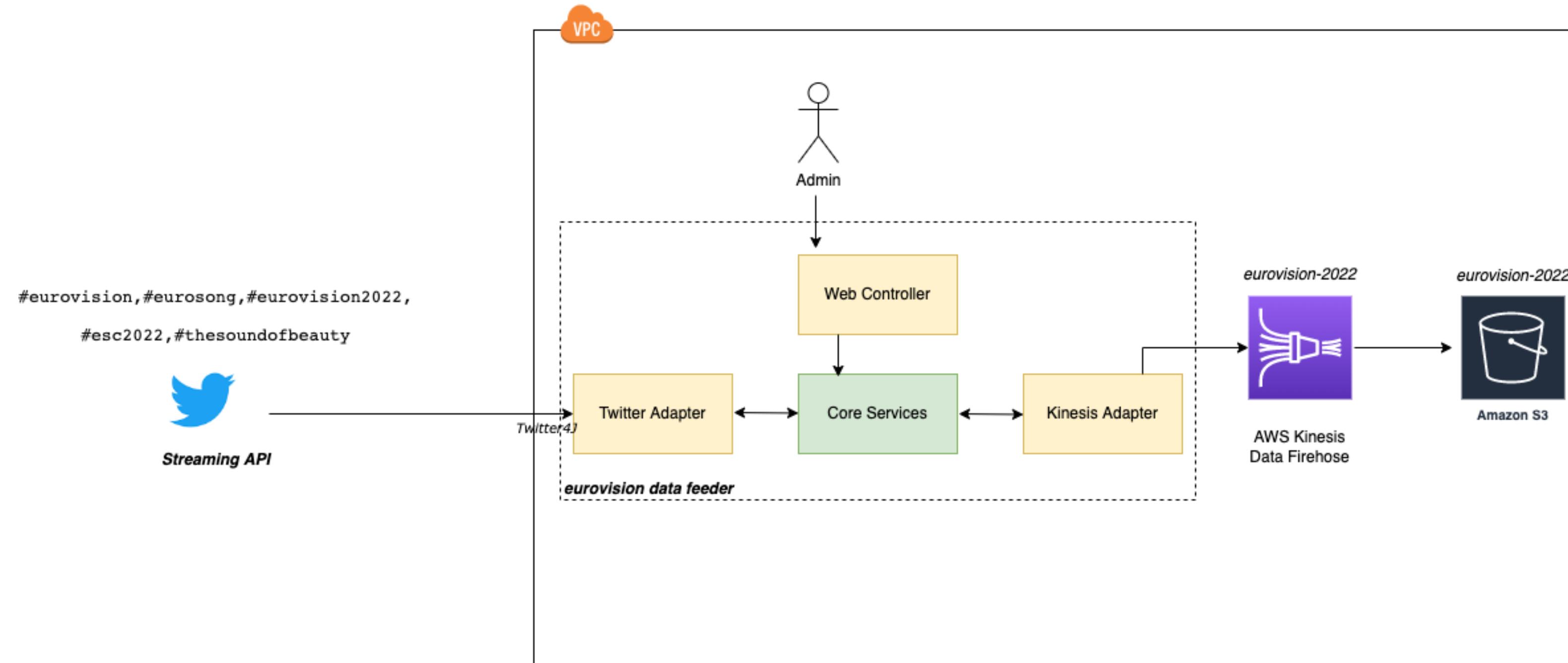


II Component

III Container

IV Class

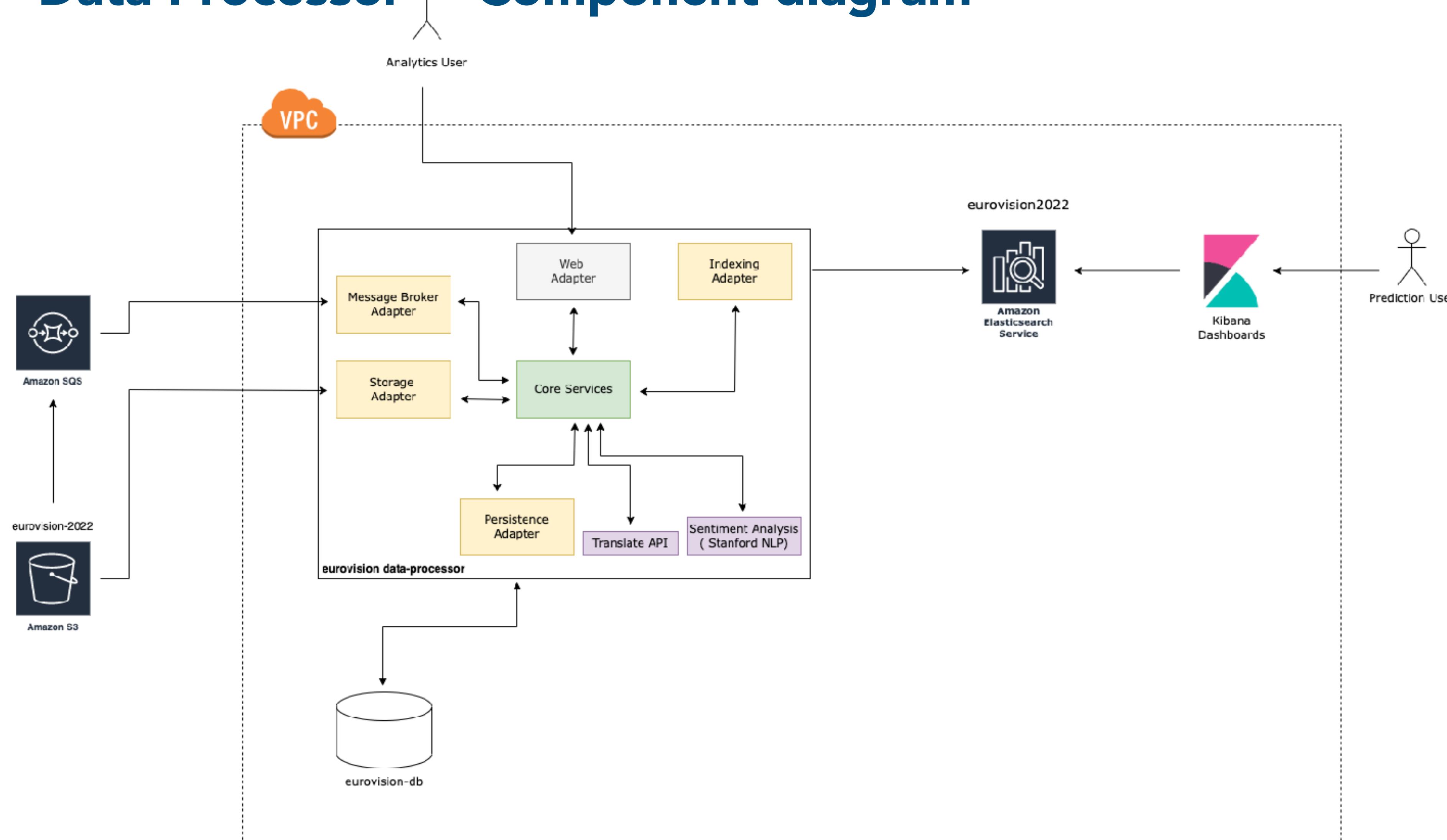
“Data Feeder” - Component diagram



Day #2 - Wednesday

Data Processing

“Data Processor” - Component diagram



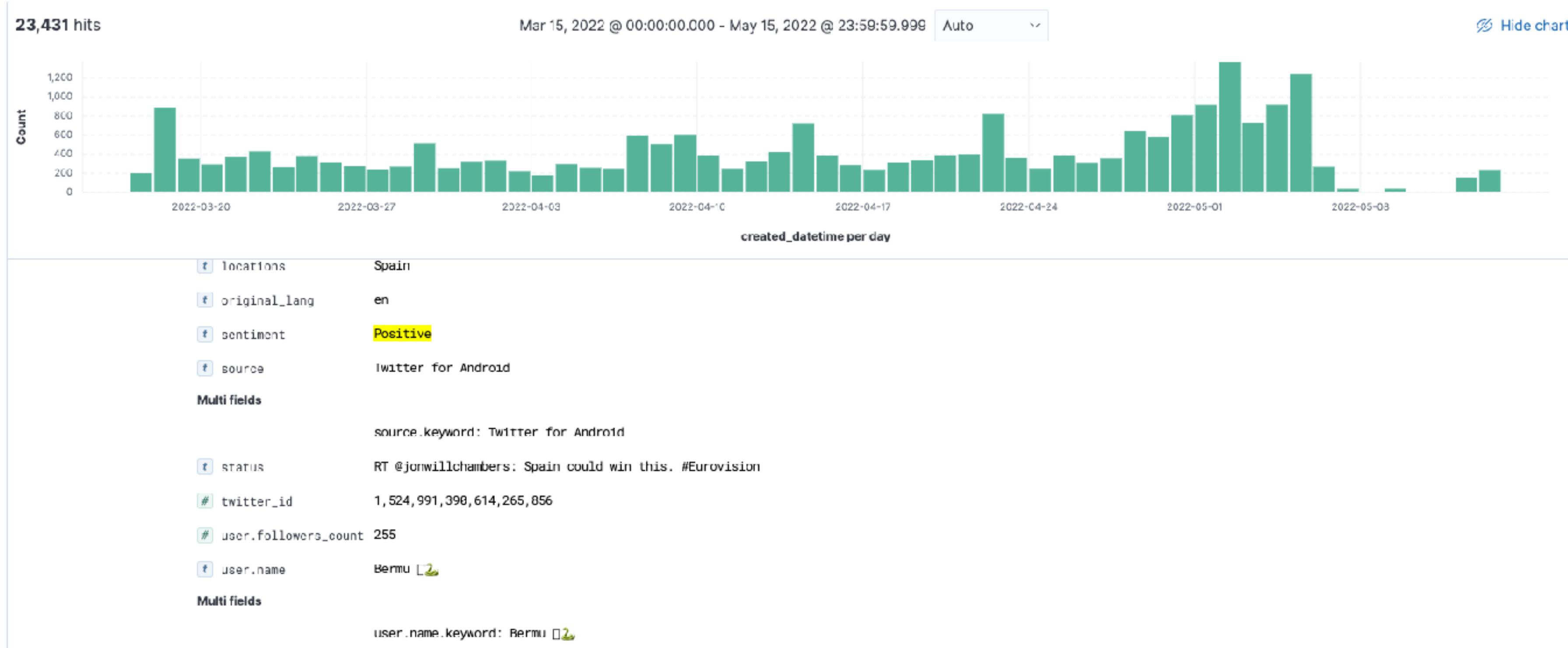
“How I beat The Lady Luck?” - Stoisavljević Aleksandar @ 2022



Day #3 - Thursday

Data Analytics

“Data Analytics” - document



"Data Analytics" - AWS Translate

The screenshot shows a Twitter search interface for the hashtag #ESC2022. On the left, a sidebar lists navigation options: Home, Explore, Communities, Notifications, Messages, Bookmarks, Profile, and More. Below this is a large blue "Tweet" button. At the bottom left, a user profile for "Alex Stoisavljevic" (@staleksit) is shown.

The main area displays search results. The first result, posted by @12_TPDP_12, is highlighted with a red box. It discusses Sam Ryder's performance in the Eurovision Song Contest 2022, mentioning he booked "Space Man" in the 15th week and moved from 31 to 38 in the Ultratop Be Top 50 in Flanders. The tweet includes a link to a YouTube video of Sam Ryder performing "Space Man" at the Eurovision Song Contest.

Below this, two more tweets from the same account are visible, also mentioning Sam Ryder and his performance in the contest.

To the right of the search results, there is a sidebar titled "Search filters" which includes options for "People" (checked), "From anyone" (unchecked), "People you follow" (unchecked), "Location" (checked), "Anywhere" (checked), and "Near you" (unchecked). There is also a link to "Advanced search".

Further down, a section titled "Trends for you" lists several trending topics: "William and Kate" (1,134 tweets), "Entertainment - Trending LOTR" (19.2K tweets), "Sussexes" (2,543 tweets), "House of the Dragon - Trending #HouseoftheDragon" (201K tweets), "Adderall" (7,816 tweets), and "Commander in Chief" (8,042 tweets).

At the bottom right, there is a "Messages" button.

"How I beat The Lady Luck?" - Stoisavljević Aleksandar @ 2022



"Data Analytics" - AWS Translate

The screenshot shows the AWS Translate Real-time translation interface. The left sidebar has links for Metrics, Real-time translation, Batch translation, Customization (Custom terminology, Parallel data), and Application integration. The main area shows a translation from Dutch to English. The source text is:

De Brit
@SamRyderMusic
boekt met "Space Man" in de vijftiende week in de
@UltratopBe
Top 50 in #Vlaanderen zeven plaatsen verlies en gaat van 31 naar 38.

The target text is:

The Brit
@SamRyderMusic
books with "Space Man" in the fifteenth week in the
@UltratopBe
Top 50 in #Vlaanderen loses seven places and goes from 31 to 38.

Below the text boxes, it says "157 characters, 157 of 5000 bytes used." and "Is this translation what you expected? Please leave us [feedback](#)". At the bottom, there are links for Feedback, Unified Settings, and Copyright information: "© 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences".

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"Data Analytics" - AWS Comprehend (or Stanford NLP)

The screenshot shows a Twitter search interface with the following details:

- Search Bar:** #eurovision #eurosong
- Filter Buttons:** Top, Latest (selected), People, Photos, Videos
- Search Filters Panel:** Shows filters for People (From anyone checked, People you follow unchecked) and Location (Anywhere checked, Near you unchecked). Includes an Advanced search link.
- Trends for You:** William and Kate (1,147 Tweets), House of the Dragon (204K Tweets), Sussexes (2,578 Tweets), Putin (189K Tweets), Commander in Chief (6,112 Tweets), MeghanMarkle (2,599 Tweets).
- Search Results:** The results list includes tweets from various users:

 - Anders Lundgren (@TotallyAnders):** Serbia (#SRB) is showing you how to wash your hands, just in case you forgot. I mean, corona and washing hands ...
Not #Eurovision top 10 worthy for me.
#songfestival #ESC22 #ESC2022 #esf #esf22 #esf2022 #eurosong #eurovision2022 #1metS10
 - Marjolijn van de Gender (@marjolijnvdcg):** Beter wast de zangeres van Servië haar handen omdat ze zojuist de presentatoren definitief de mond heeft geannoerd.
#songfestival #eurosong #eurovision #srbo
Translate Tweet
 - Koen Willen (@KoenWillen):** That is the same person! 😱😱
#SRB #Eurovision #ESC2022 #Eurosong #Songfestival

- Bottom Navigation:** A blue "Tweet" button and a "Messages" icon.

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“Data Analytics” - entities extraction

The screenshot shows the Amazon Comprehend service interface. On the left, there's a sidebar with options like Real-time analysis, Analysis jobs, Customization (Custom classification, Custom entity recognition, Endpoints), and Results. The main area displays an analyzed text snippet and a results table.

Analyzed text:

```
Serbia (#SRB) is showing you how to wash your hands, just in case you forgot. I mean, corona and washing hands ...  
Not #Eurovision top 10 worthy for me.  
#songfestival #ESC22 #ESC2022 #esf #esf22 #esf2022 #eurosong #eurovision2022 #Imets10
```

Results:

Entity	Type	Confidence
Serbia	Organization	0.94
#SRB	Organization	0.91
#Eurovision	Event	0.95
top 10	Quantity	0.94
#songfestival	Event	0.94
#ESC22	Event	0.93
#ESC2022	Event	0.96
#esf	Event	0.89
#esf22	Event	0.93
#esf2022	Event	0.97

At the bottom of the results table, there's a link to Application integration.

Feedback: Looking for language selection? Find it in the new Unified Settings [\[link\]](#)

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“Data Analytics” - sentiment

The screenshot shows the AWS Amazon Comprehend service interface. In the top navigation bar, the search bar contains "Search for services, features, blogs, docs, and more [Option+S]" and the location is set to "N. Virginia". The main content area displays a text input field containing the tweet: "Not #Eurovision top 10 worthy for me. #songfestival #ESC22 #ESC2022 #esf #esf22 #esf2022 #eurosong #eurovision2022 #1met510". Below the text input, it says "240 of 100000 characters used." and provides "Clear text" and "Analyze" buttons. The "Analyze" button is highlighted with a red box. The results section is titled "Insights Info" and includes tabs for "Entities", "Key phrases", "Language", "PII", "Sentiment" (which is selected and highlighted with a red box), and "Syntax". The "Analyzed text" section shows the tweet again. The "Results" section shows the sentiment distribution:

Sentiment	Confidence
Neutral	0.45 confidence
Positive	0.05 confidence
Negative	0.48 confidence
Mixed	0.00 confidence

At the bottom of the page, there are links for "Feedback", "Unified Settings", "© 2022, Amazon Web Services, Inc. or its affiliates.", "Privacy", "Terms", and "Cookie preferences".

“How I beat The Lady Luck?” - Stoislavljević Aleksandar @ 2022



“Data Analytics”



14	yellow	open	account_policy	n5HqQD5tSSyRJcP3Imt0xA	1	1	15	0	11.9kb	11.9kb
15	yellow	open	eurovision2022	d95DATvkRWixhWNDUbqP6A	4	1	6099849	48148	2.2gb	2.2gb
16	green	open	.tasks	V1NjyRVdRY-KqwJWxQoHTw	1	0	121	4	86.2kb	86.2kb

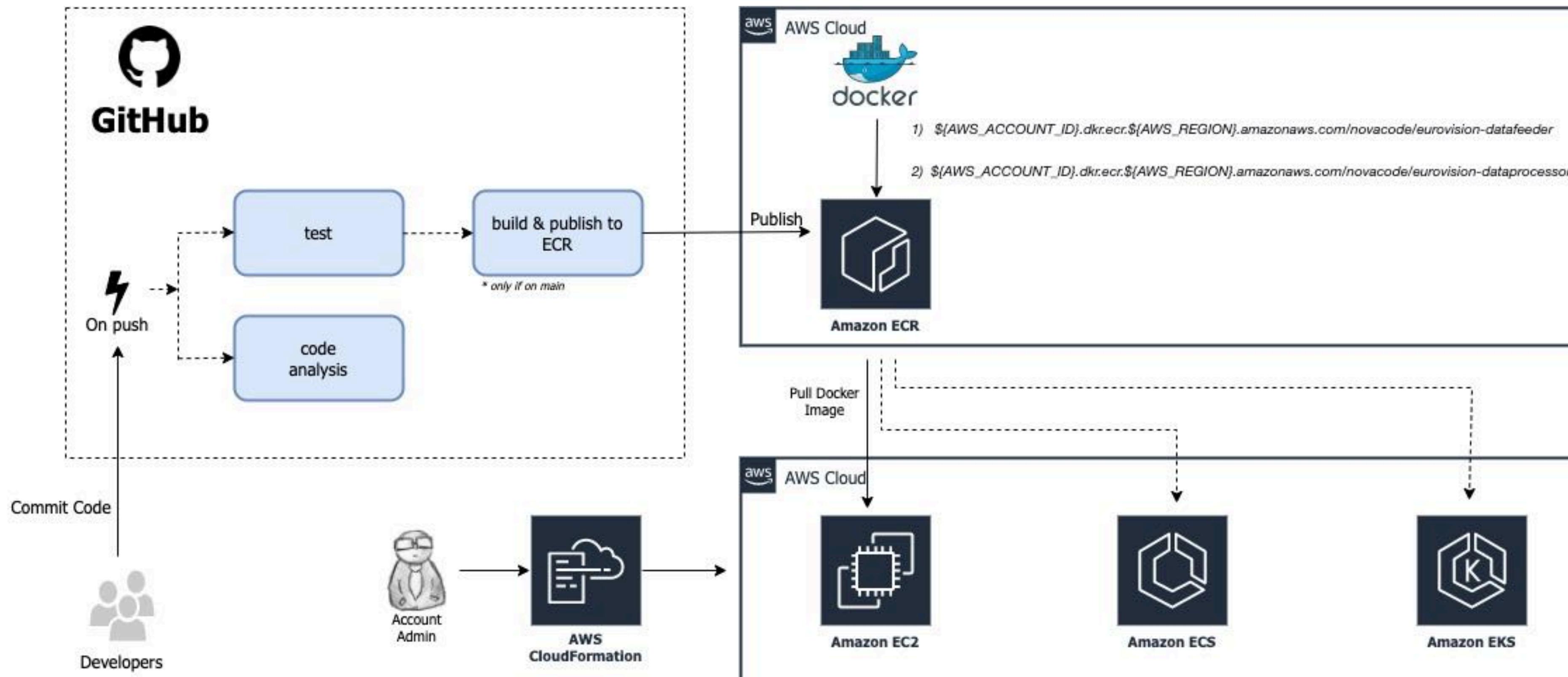
“How I beat The Lady Luck?” - Stoisljević Aleksandar @ 2022



Day #4 - Friday

Connecting the Dots

Connecting the Dots



"How I beat The Lady Luck?" - Stoisavljević Aleksandar @ 2022



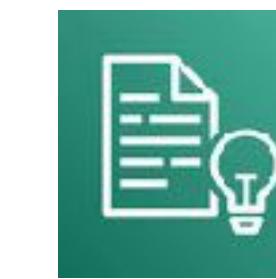
"A la carte"



Amazon Kinesis Firehose



AWS Translate



AWS Comprehend



Amazon
S3



Amazon
SQS



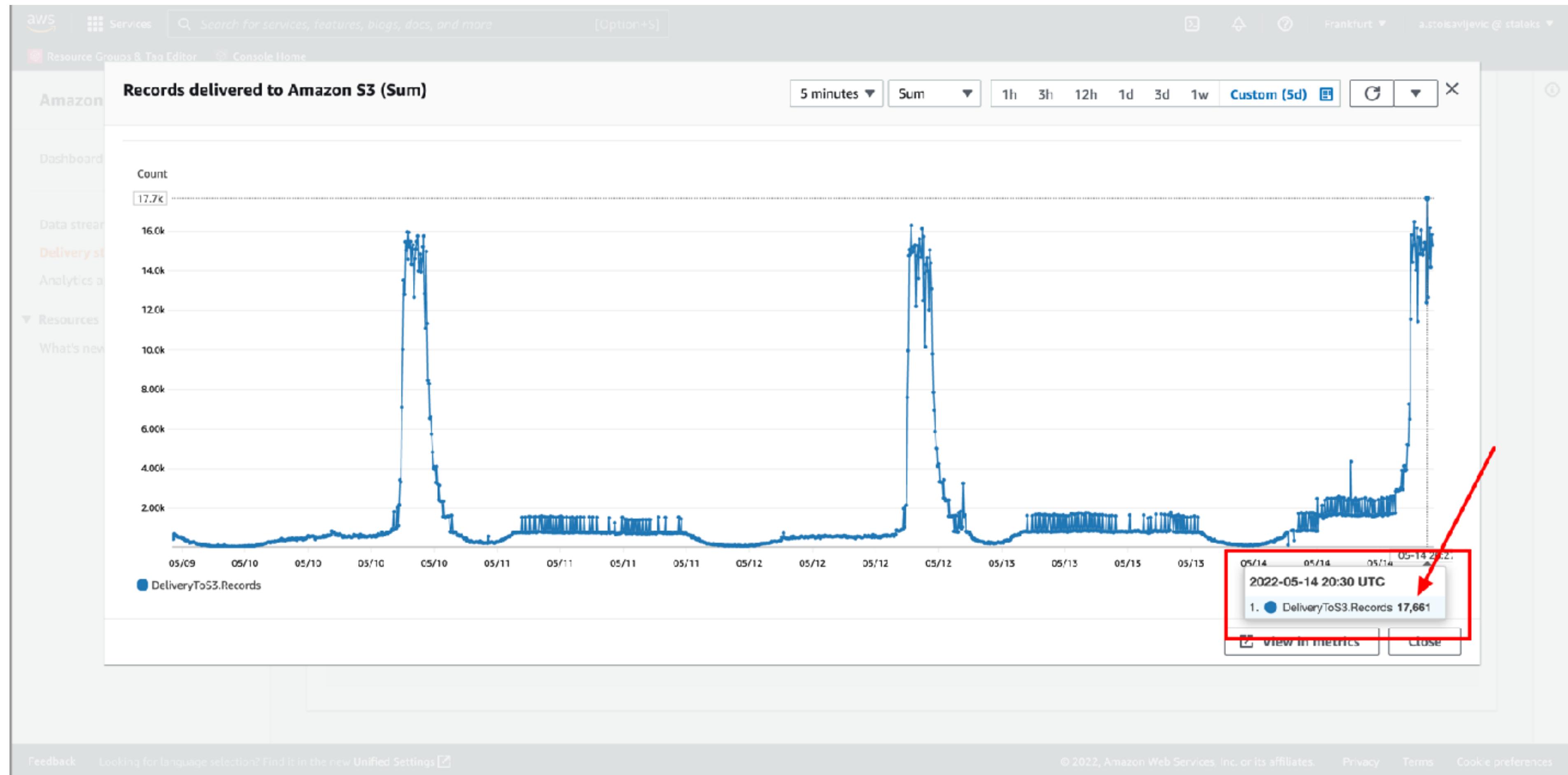
Day #5 - Saturday

“Pop corn time”



"How I beat The Lady Luck?" - Stoislavljević Aleksandar @ 2022



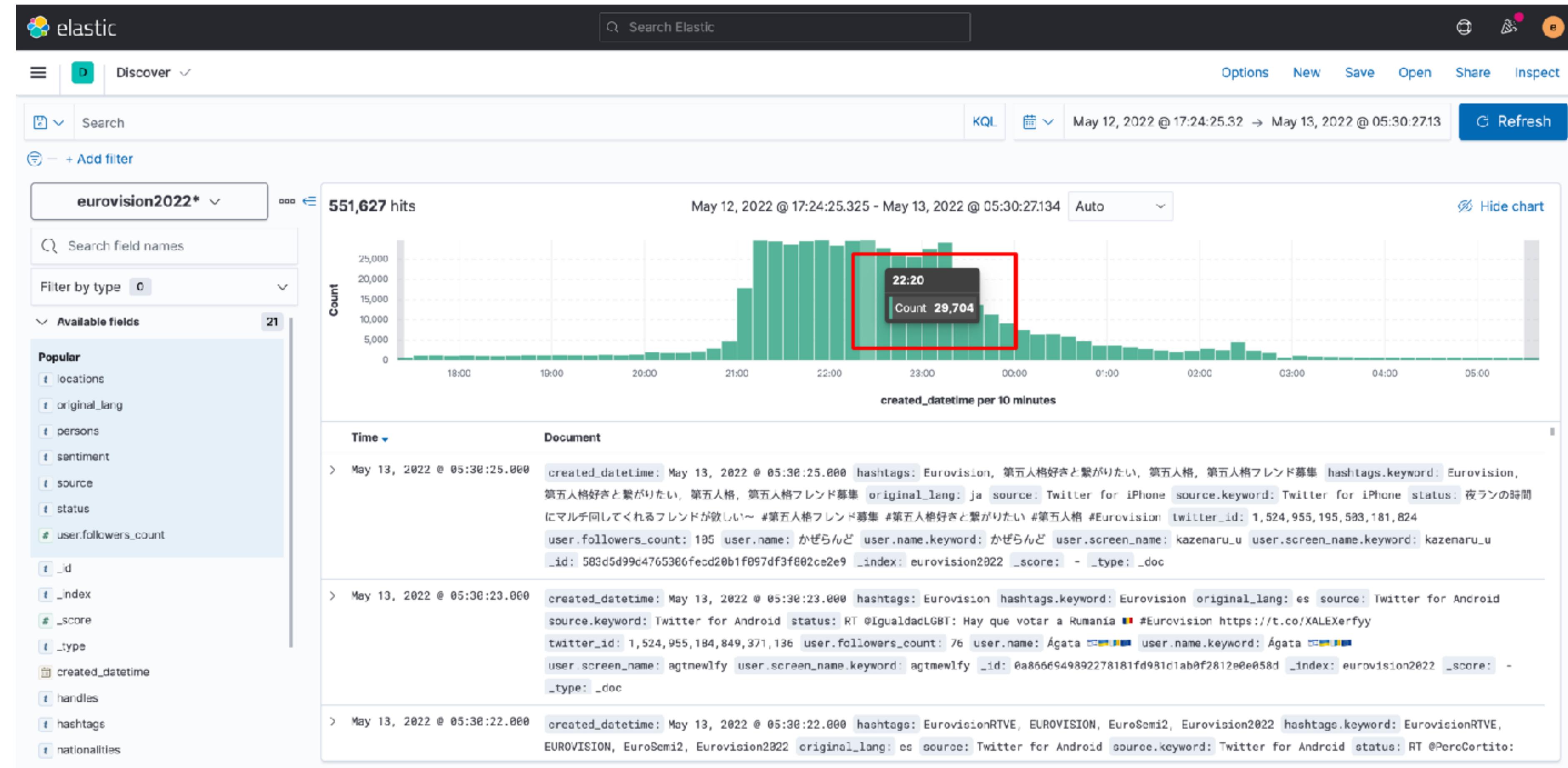


17K+ AWS Kinesis to S3 records delivered at FINAL (peak)*

* 5 min agg.

"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022





~30K “Eurovision Buzzer” documents indexed at FINAL (peak)*

* 10 min agg.

“How I beat The Lady Luck?” - Stoislavljević Aleksandar @ 2022



1st Semi-Final night

Prediction:

Ukraine, Portugal, Austria, Albania,
Greece, Island, Norway, Armenia,
Moldova and Netherlands

Actual:

Ukraine, Portugal, Austria, Switzerland,
Albania, Lithuania, Greece, Island,
Norway, Armenia, Moldova and
Netherlands

8 out of 10 !!!

← Thread

Alex Stoisavljevic @staleksit · May 10 ...
After some turbulence during performances, 4 certain are: UKR, POR, AUT, ALB.
GRE fallen low, but still can qualify.
Rest that is not so sure (according to Twitter): ISL, NOR, ARM, MOL, NED.

Alex Stoisavljevic @staleksit · May 10 ...
And now it is time to verify my side-gig "project"
#eurovision #eurosong #eurovision2022 #esc2022 #thesoundofbeauty
#pze22

Alex Stoisavljevic @staleksit · May 10 ...
Totally misses ALB & AUT.
SWI & LIT surprise.
So 6 out of 10 ... "not too bad" :)

Alex Stoisavljevic @staleksit ...
Actually 8 out of 10. So from this post I've missed AUT & ALB, substitute with SWI & LIT :) Math is not my best side :)

11:23 PM · May 10, 2022 · Twitter Web App

View Tweet analytics

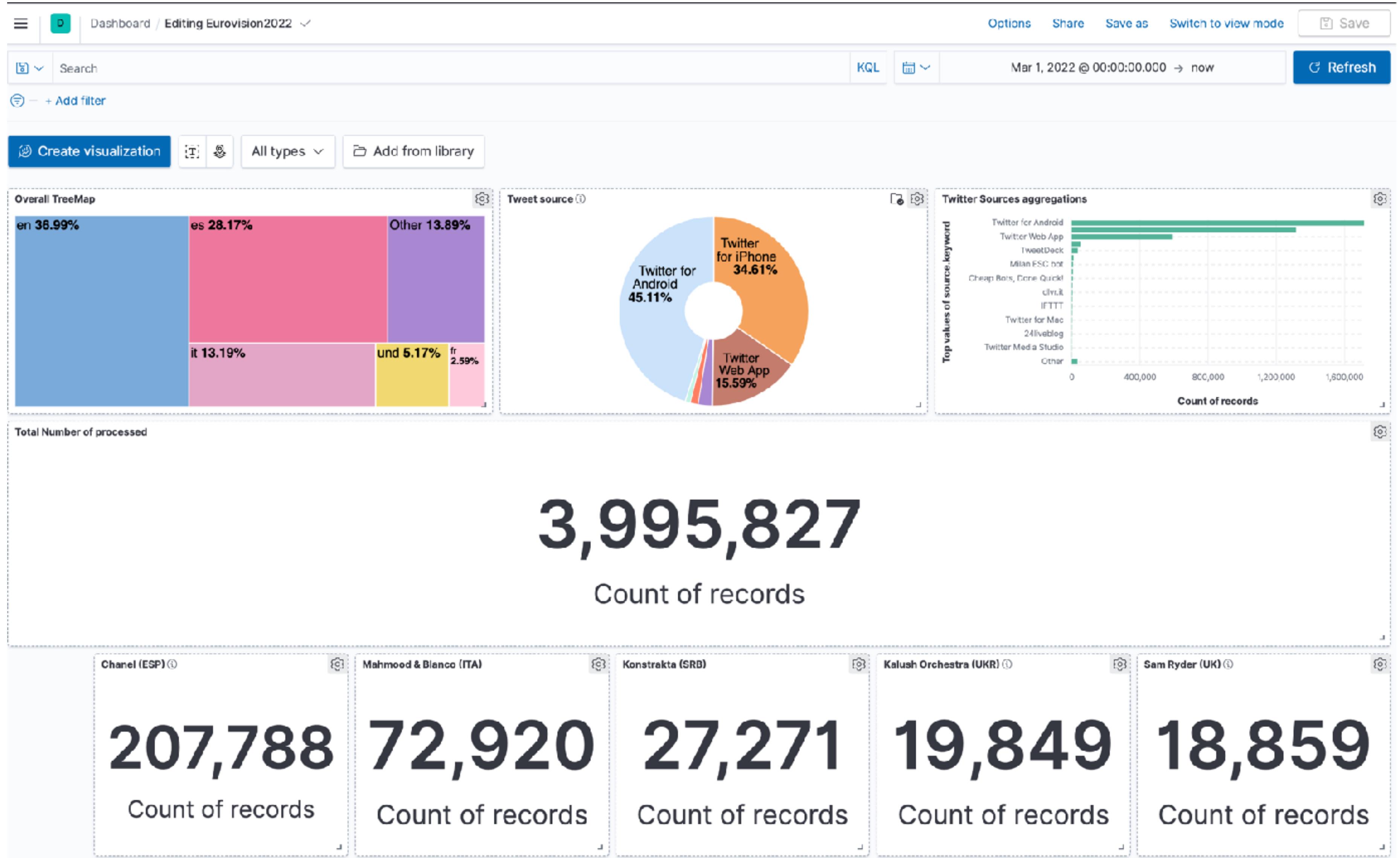




NOT TOO BAD !!!

"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022





"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022



“Eurovision Buzzer” - Disclaimer

1. This presentation is an informative and is designed for entertainment purposes only.
2. Primary objective is to keep attendees informed about certain aspects of the IT industry.
3. I do not have business with any gambling organisation, nor do I endorse any form of real money gambling.
4. Prior to participating in any form of gambling, I recommend you to check the laws in your jurisdiction related to such activities, and to absolutely avoid gambling if you are underage.



[1/1] Singl Tip Kvota
6364 16-05 Netherlands - 2019 Eurovision
21:00 Pobednik 1 2,50

Kvota: 2,50
Uplata: 2000,00 RSD

Maks. isplata: 5000,00 RSD
Br. kombinacija: 1
Kod za isplatu: 132041

15-05 20:06:49 Safarikova
milos

POGODI NAJVECU KVOTU
I OSVOJI
1.000.000 RSD

Side project WHY?

Side project WHY?

Reasons

“My main job is not amusing for me as it was at the beginning!”

“I would like to develop/improve XYZ skill but it is not my job description.”

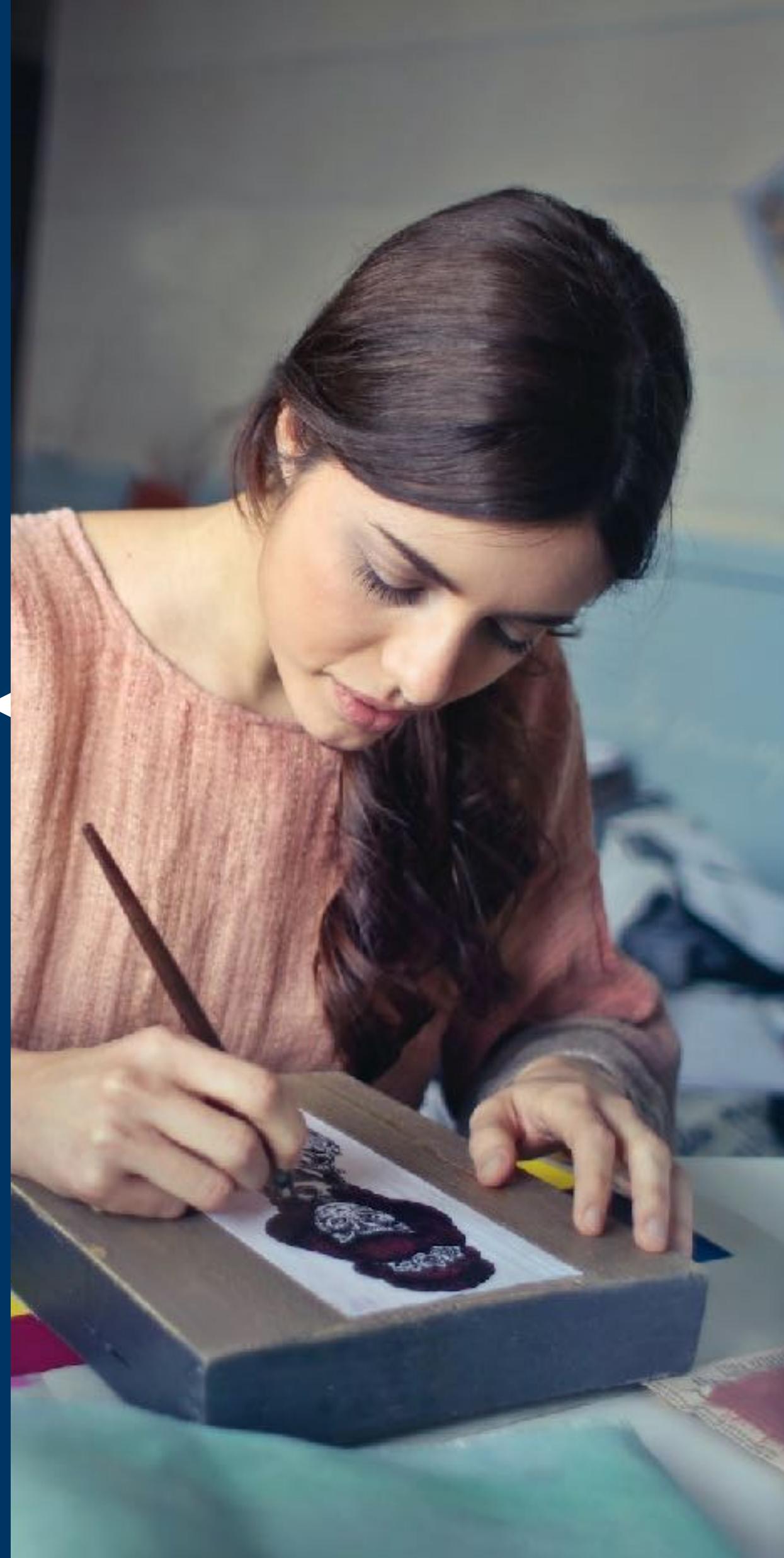
“I get positive feedback about my idea from my peers/colleagues, but my boss, my employer doesn't provide me any support on this.”

“I'm developer but I think I can find myself in a PRODUCT DESIGN/OWNER role, but we don't have such position open.”

Side project WHY?

Reasons

Benefits



CREATIVITY

You start with empty paper. All that you come to it's about you.

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Side project WHY?

Reasons

Benefits



KNOWLEDGE

You will spend time to come to some solutions. Sometimes more than needed. But hey!, You will get deeper knowledge.

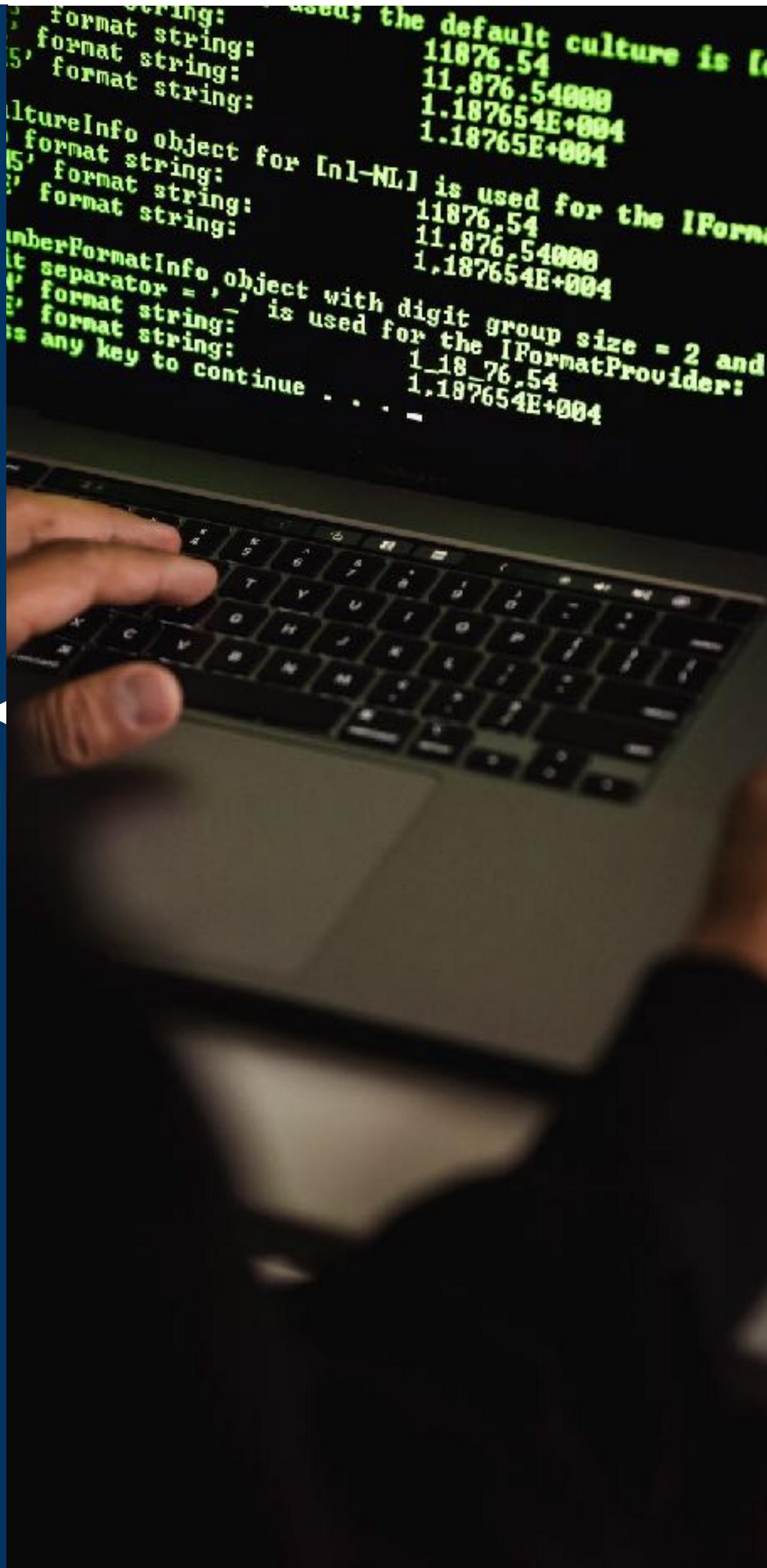
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Side project WHY?

Reasons

Benefits



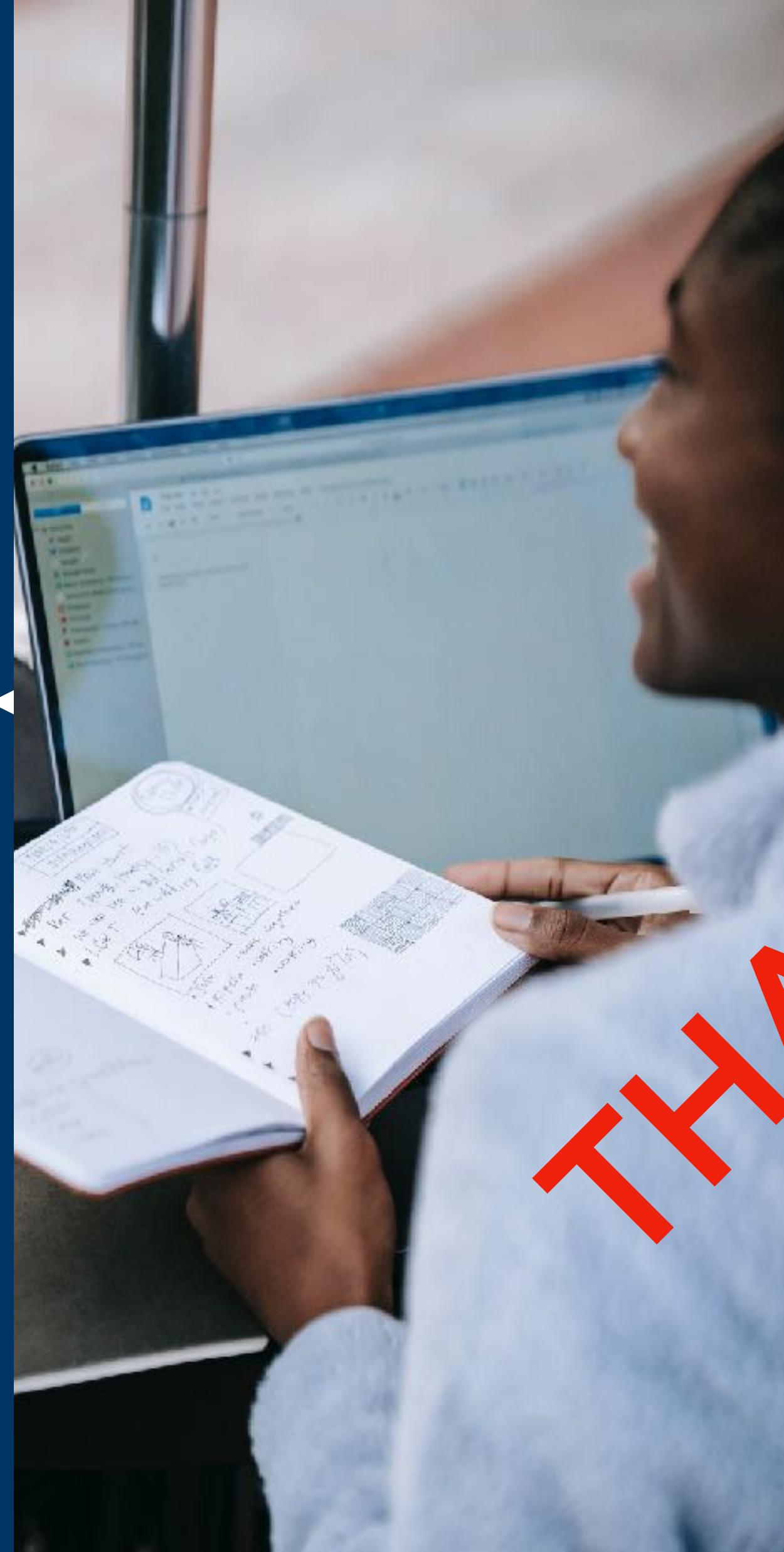
TESTING

There is no dedicated QA (get acquainted with testing pyramid)

Side project WHY?

Reasons

Benefits



**THAT'S WHY!
TASK OWNERSHIP**

you are all alone on YOUR side
project (task break down, design,
coding, testing, infrastructure)

Side project
WHY?

Reasons

Benefits

Self-improvement

public static final String CERTAINTY = "change";

THAT'S WHY!

Side project **WHAT & HOW?**

Attention!

Side project IS NOT about GLOBAL SUCESS.

Side project IS NOT a hobby.

Side project IS NOT internship.

Side project IS NOT coding for equity.

Side project IS *most useful, constructive learning, self-development tool.*

Side project IS about YOUR
CAREER SUCCESS.



Attention!

Guidelines

SMALL - It can't "eat" a lot of your time

YOU - It reflects your **PASSION**.

YOUR CONDITIONS - it has to be under **YOUR** conditions.
Otherwise you are working for someone else.

WORKING - what ever you make, make it working. Or else this
is just code graveyard.

SHOWABLE - do brag yourself, to your partner/family/
colleagues/peers

That is a **drive** for the future!



Attention!

Guidelines

Use familiar technology

Something close that you are familiar with (looks slicker, moves quicker and gives you the credibility). Do not under estimate domain knowledge.

Write down what project is about

From time to time perform SELF & SIDE PROJECT relationship check.

Make a plan

Try to stick to it. Use some tooling like e.g. Trello, GitHub Projects, ...



Side project WHAT & HOW?

Attention!

Guidelines

Make it
happen

*Side project is not “entrepreneurship”
fail fast model.*

*You should make side project as a
SLOW SUCCESS!*

Side project
WHEN?

Side project
WHEN?

Discipline

Side project is all about YOU and it should reflect YOUR PASSION.

You have to identify and make yourself disciplined to squeeze these little moments and make things happen

In order to succeed, do a proper SELF-TIME management. Feel free to experiment.

Do not overlap your side project time with main job. Be aware and **DO NOT CHEAT! NEVER!**

Have 20% company time (steering, PDP, ...)? You are lucky one!

Side project
WHEN?

Discipline

When to
stop?

**Check! No PASSION?
Stop doing it!**

"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022



References:

Why You Should Have a Side Project

<https://facilethings.com/blog/en/side-projects>

Don't let Burnout Stall Your Career

https://www.crowdspring.com/blog/5_best_tips_for_preventing_burnout/

The Positive Effect on Creative Activities on Performance at Work

<https://www.spring.org.uk/2014/04/the-positive-effect-of-creative-hobbies-on-performance-at-work.php>

Wellness Tips from Successful Entrepreneurs and Health Experts

<https://www.crowdspring.com/blog/wellness-tips-from-successful-entrepreneurs-and-health-experts/>

Why Your Best Employees have Side Projects

<https://getlighthouse.com/blog/employees-side-projects-value/>



Conclusion & key takeaways

"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022



Konstrakta - "In Corpore Sano"



*In corpore sano, in corpore sano
In corpore sano, in corpore sano
In corpore sano, in corpore sano
Corpus je sanum i šta ćemo sad?
Mens infirma in corpore sano
Animus tristis in corpore sano
Mens desperata in corpore sano
Mens conterrata in corpore sano*

I šta ćemo sad?

*U zdravom telu, u zdravom telu
U zdravom telu, u zdravom telu
U zdravom telu, u zdravom telu
Telo je zdravo i šta ćemo sad?
Bolestan um u zdravom telu
Tužna duša u zdravom telu
Očajan um u zdravom telu
Uplašen um u zdravom telu*

I šta ćemo sad?

Thank You



astoisavljevic



@staleksit

"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022



Questions & Answers

"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022



Thank You



astoisavljevic



@staleksit

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Intermezzo

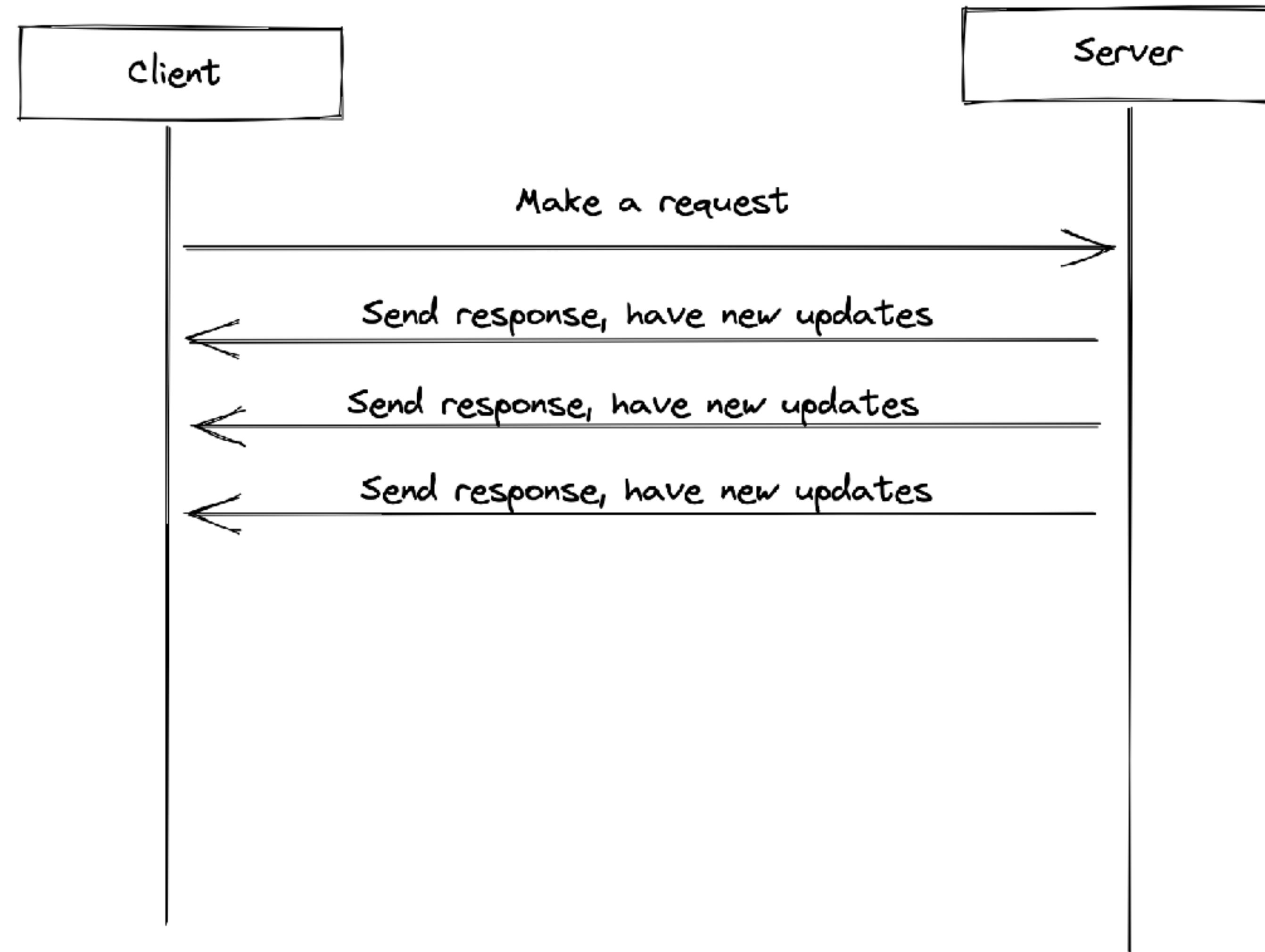
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for those that are curious enough

"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022



Twitter Streaming API



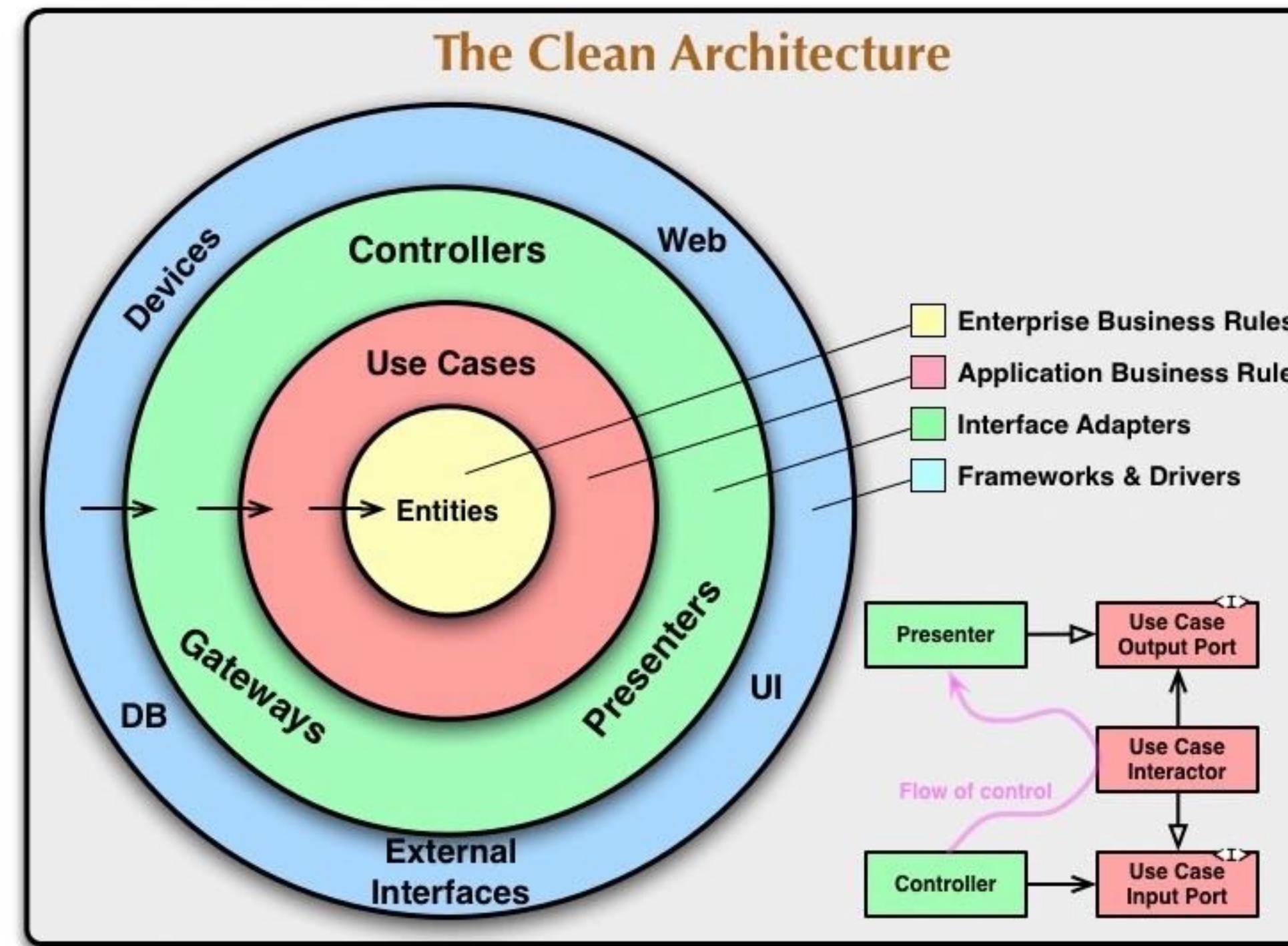
Software Architecture

Clean Code & Hexagonal

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Robert C. Martin a.k.a. "Uncle Bob"

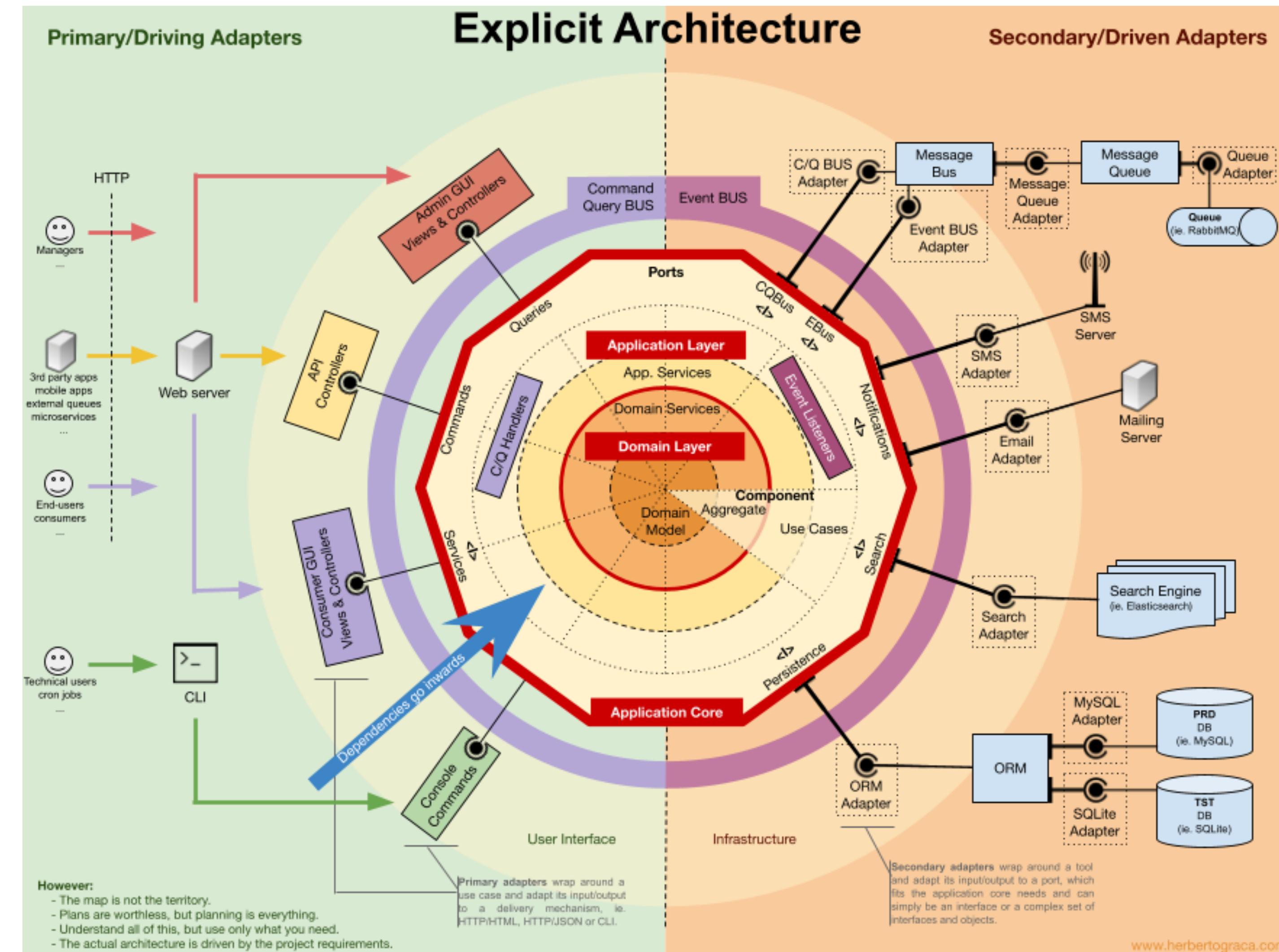


Architecture

Clean Code

Hexagonal Architecture

Alistair Cockburn



"How I beat The Lady Luck?" - Stoisavljević Aleksandar @ 2022



AWS Kinesis Firehose

"How I beat The Lady Luck?" - Stoisljević Aleksandar @ 2022



AWS Kinesis

Firehose

AWS Kinesis Firehose DeliveryStream

AWS Kinesis Firehose is **cloud-based data processing pipeline** that lets you easily process large amount of **streaming data in real time**. The service provides multiple data sources that push data to stream in real time and that can be delivered to destinations of your choice such as AWS S3, AWS Redshift, AWS OpenSearch or any custom defined HTTP endpoint.



AWS Kinesis

Firehose

Context
Diagram



AWS Kinesis

Firehose

Context
Diagram

Key Concepts

AWS Kinesis Firehose DeliveryStream

Key concepts are: data producer, buffer size and interval.

Buffer size determines the amount of unprocessed data that is buffered prior to being consumed. Buffer interval is same but in form of time. Buffered data will be consumed compared to these two values, whatever is fulfilled first.



Natural language is
complicated -
even for humans

Language Ambiguity

Lexical Ambiguity

Syntactic Ambiguity

Referential Ambiguity

She is looking for a *match*.

I saw *bats*.

The chicken is ready to eat.

I saw the man with the binoculars.

The boy told his father about the test. He was very upset.

Do you think this is reserved only for English language? You are wrong!

Učiteljici se ustaje.
Brat mi je slomio ruku!



NLP

Tokenization

Today we will understand tokenization.

Today we will understand tokenization.

Today we will understand tokenization.

NLP

Tokenization

Stemming

Word normalization to base root.

Affection

Affected

Affecting

Affect



NLP

Tokenization

Stemming

Lemmatization

Lemmatization output is always a proper word.

Needs a dictionary.

gone

going

go



NLP

Tokenization

Stemming

Lemmatization

Stop Words

of

and

to

me

Does not add any value to comprehend sentence.

NLP

Tokenization

Stemming

Lemmatization

Stop Words

PoS

Parts of Speech (PoS)

CD: cardinal number

DT: determiner

NN: noun singular

NNS: noun plural

DT DT
The dog ate the cat.
NN VERB NN

NLP

Tokenization

Stemming

Lemmatization

Stop Words

PoS

NER

Name Entity Recognition (NER)

It involves the identification of key information in the text and classification into a set of predefined categories.

Two step process:

- detecting entities in the text and
- classifying them into different categories

NovaCode's CTO, Aleksandar Stoisljević, held his presentation at Naucno-Tehnoloski Park as part of Geekstone meetup.

organization

location

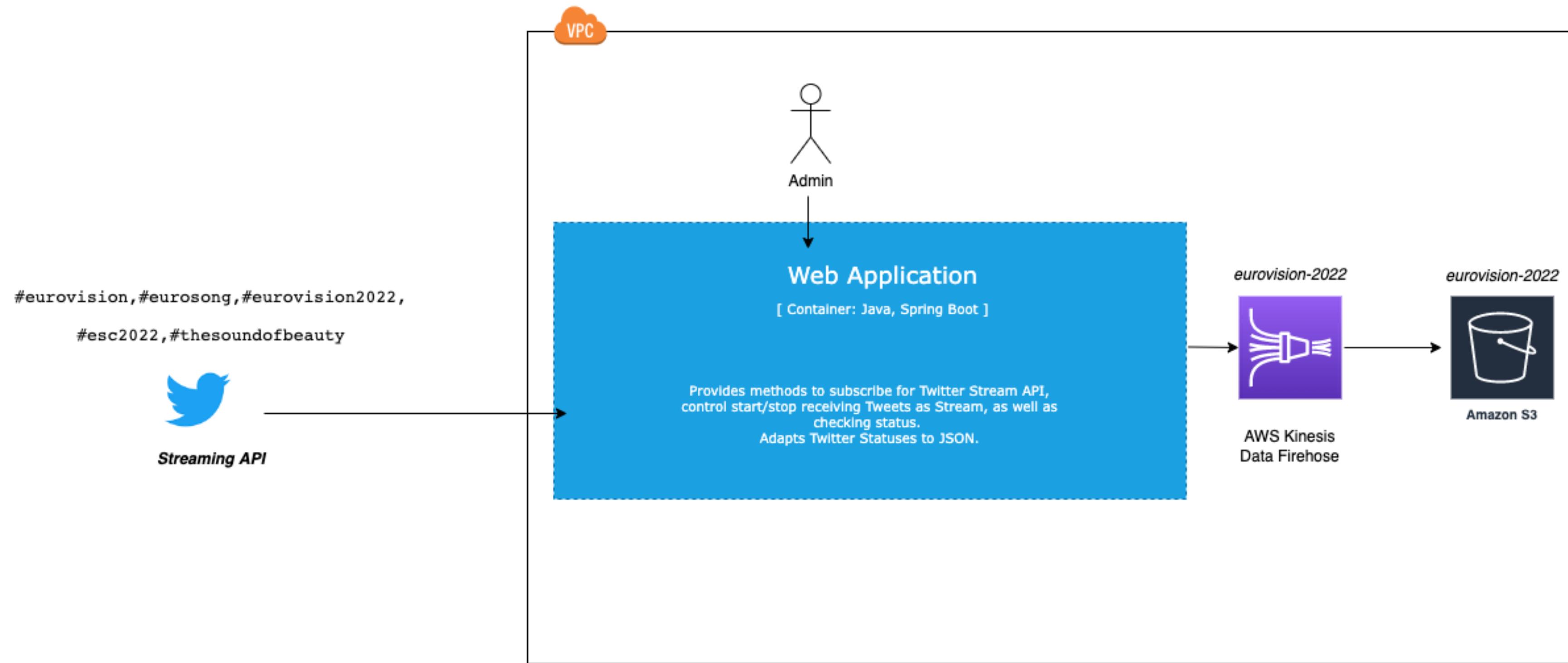
person



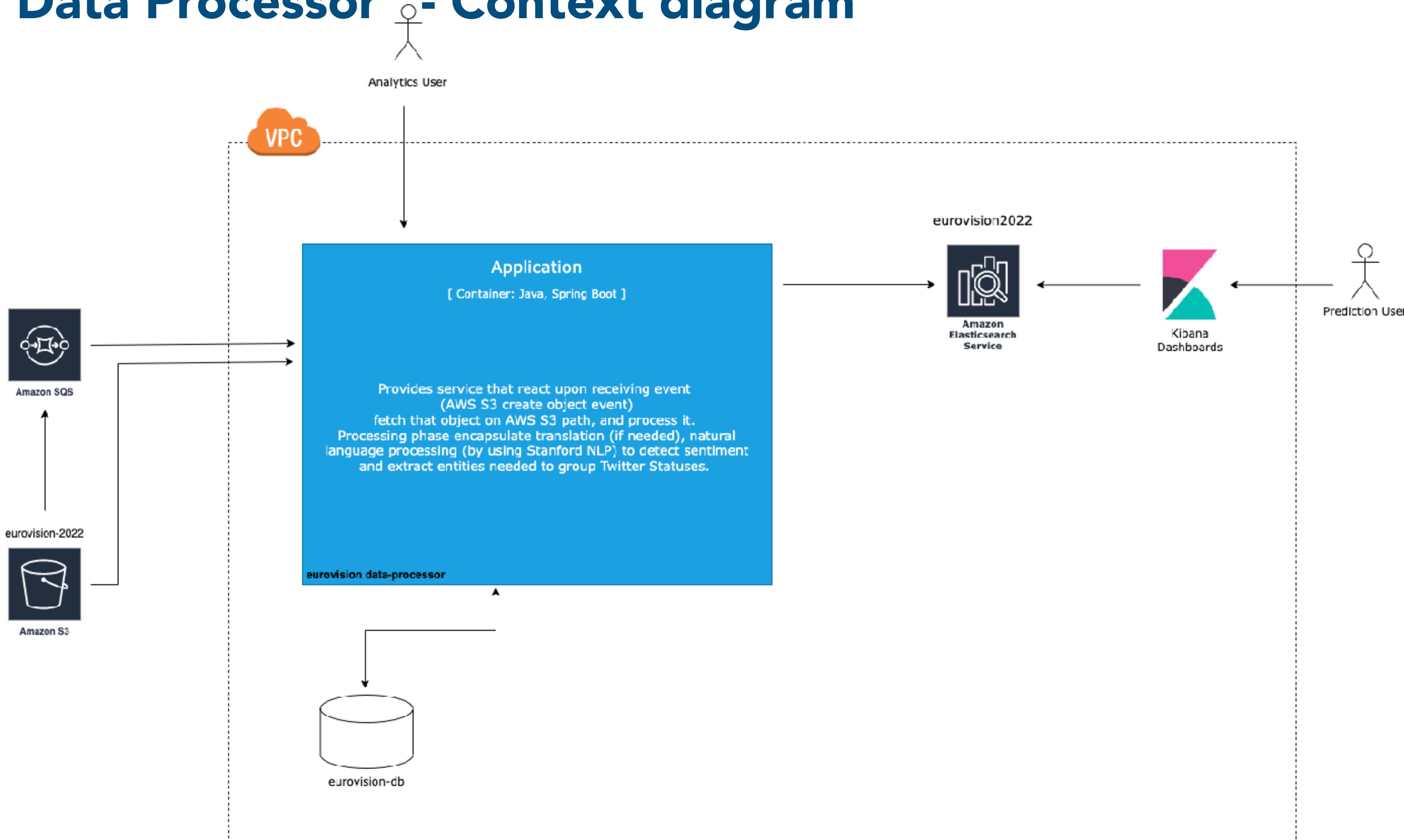
"How I beat The Lady Luck?" - Stoislavljević Aleksandar @ 2022

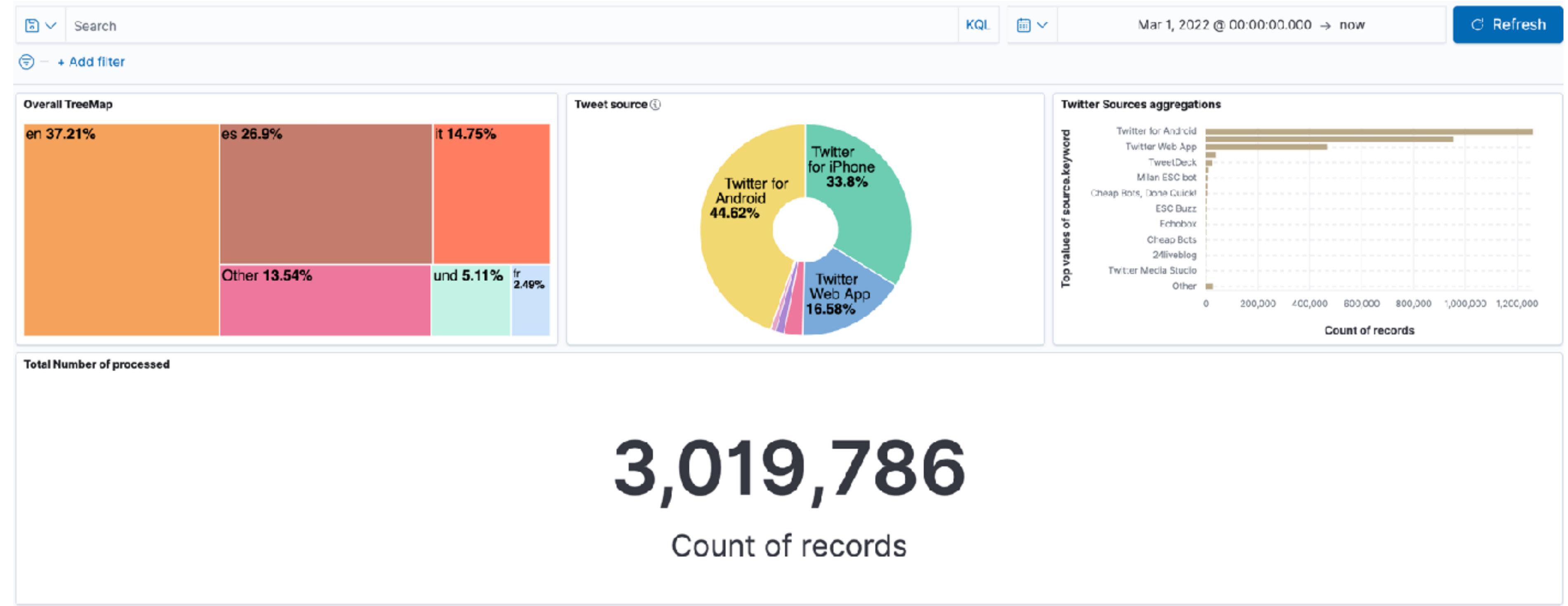


“Data Feeder” - Context diagram



“Data Processor”- Context diagram





Interesting facts:

- language: 37% English, 27% Spanish, 15% Italian and less than 3% French speaking
- source: 44,6% Android, 33,8% iOS, 16,6% Web, etc. And there are bots :)