Ethical Data Science

Introduction to Data Science

Author: Eng. Carlos Andrés Sierra, M.Sc.
carlos.andres.sierra.v@gmail.com

Lecturer
Computer Engineer
School of Engineering
Universidad Distrital Francisco José de Caldas

2024-II

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Outline

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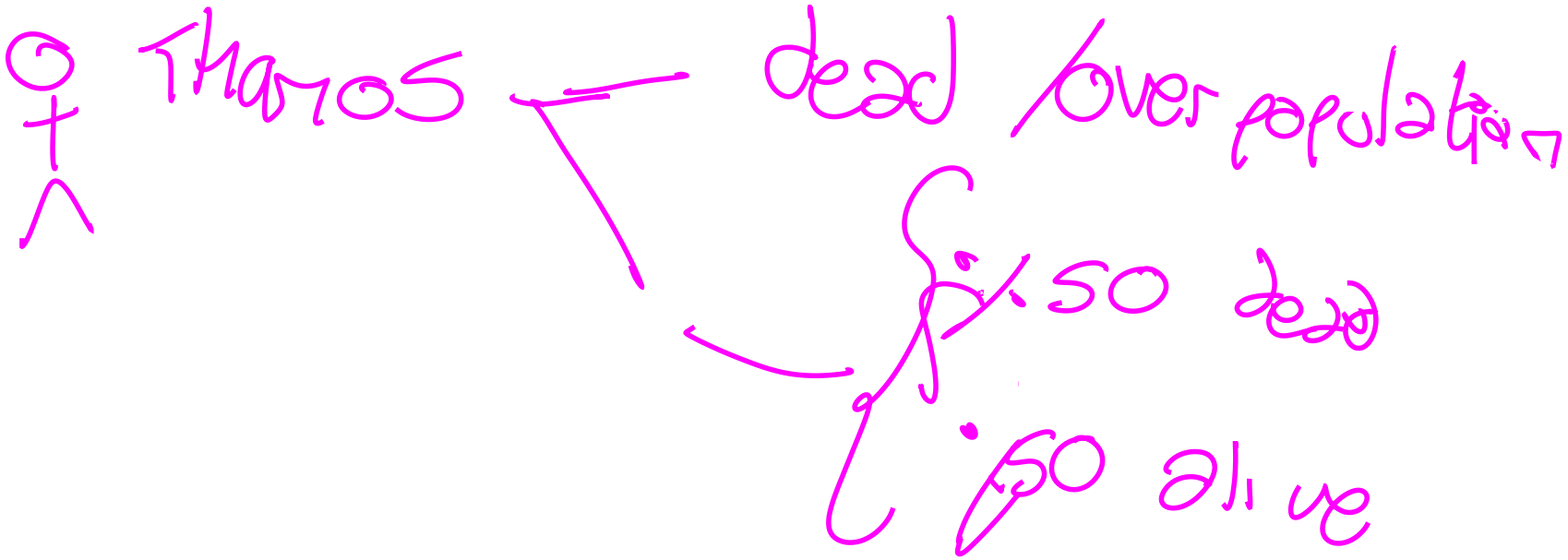
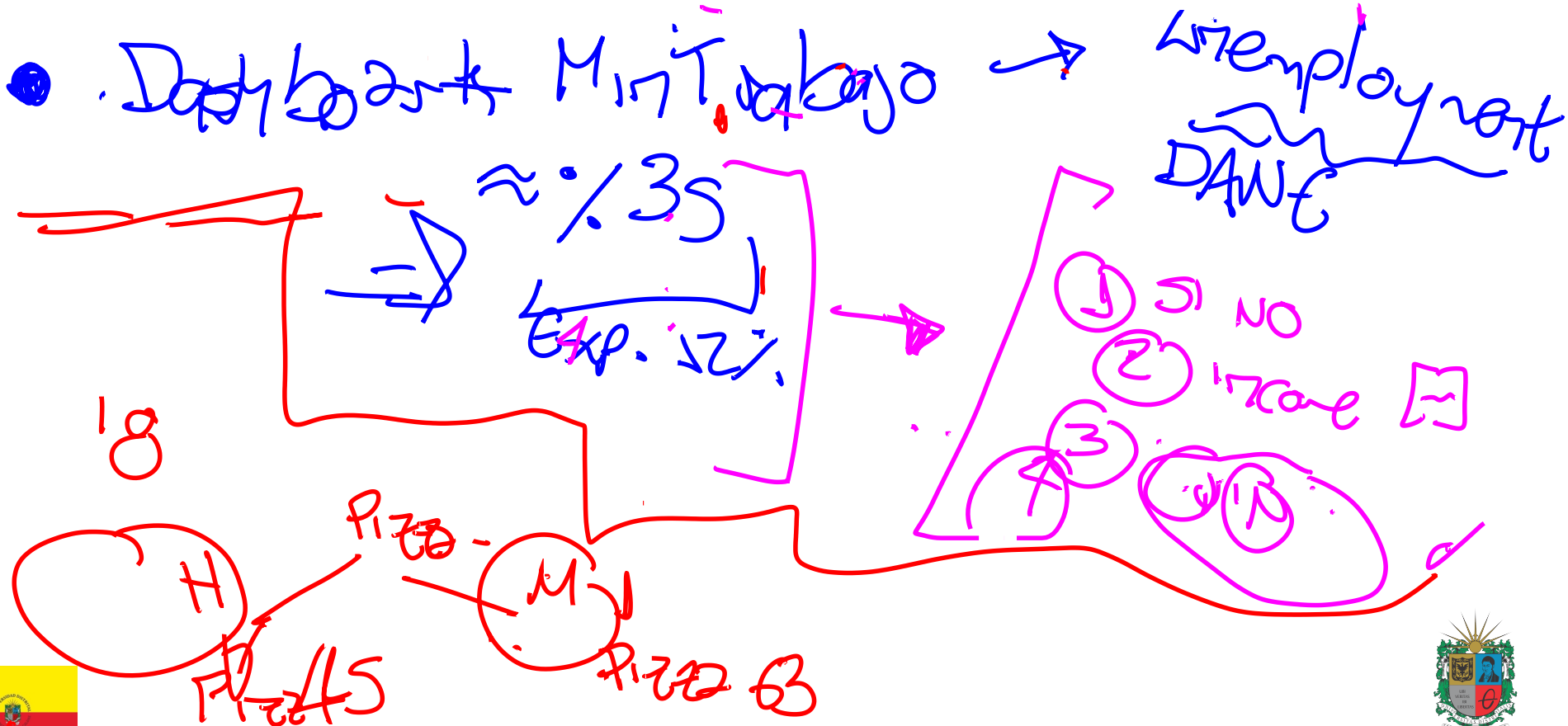
Ethical Behaviours

Ethical behaviors are hard to define and deal. Sometimes it is hard just to explain **why** some actions could be not ethical.



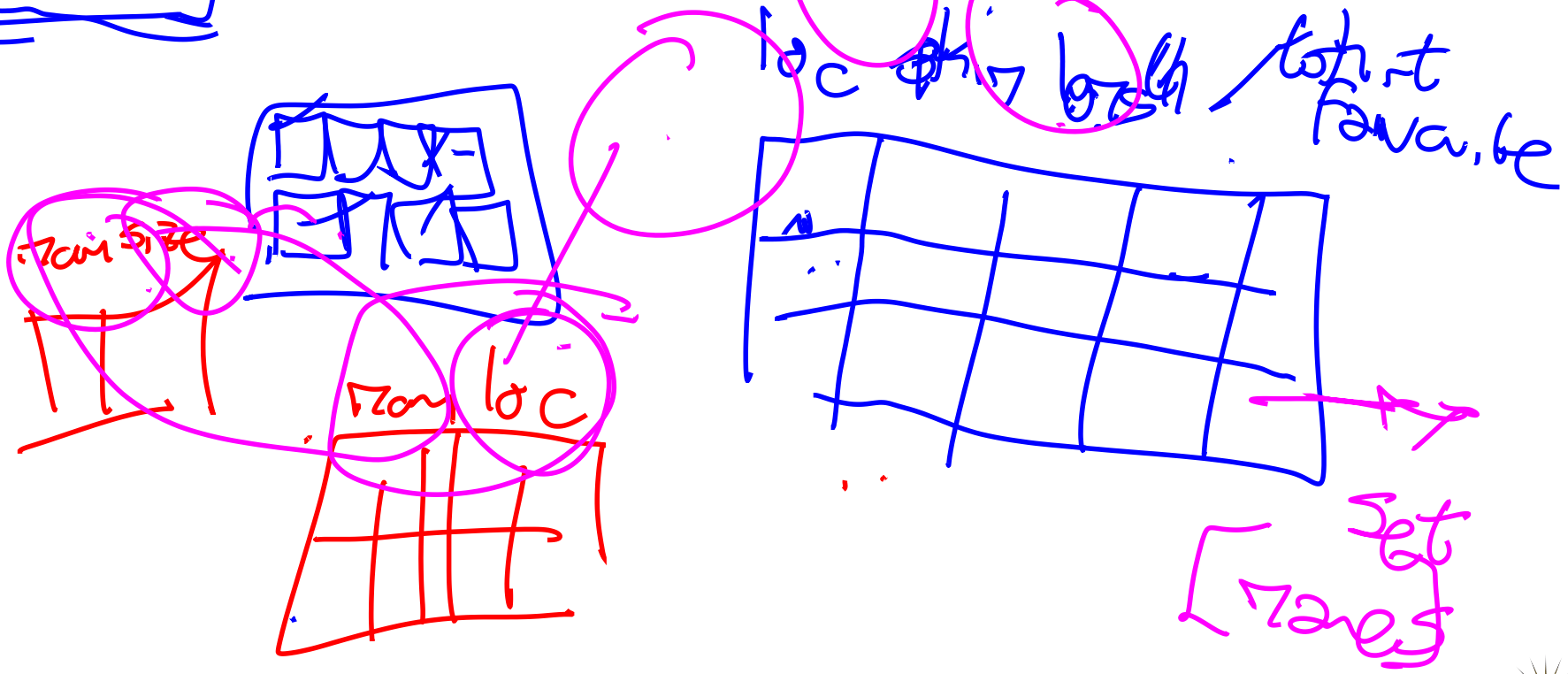
Bad Use of Data

~~Bad use of data~~ is a problem, ignore details for example. Even worts, use **unbalanced data** to make decisions.



Sharing Data

The share information is a problem right now. Even if you try to convert some part of the information into anonymous, someone could **de-identified** just making the right questions over the data.



Privacy in Modern Times

Privacy of the data is also a big problem. Internet and social networks are a source of **data filtration**, you could be under attack at any moment.

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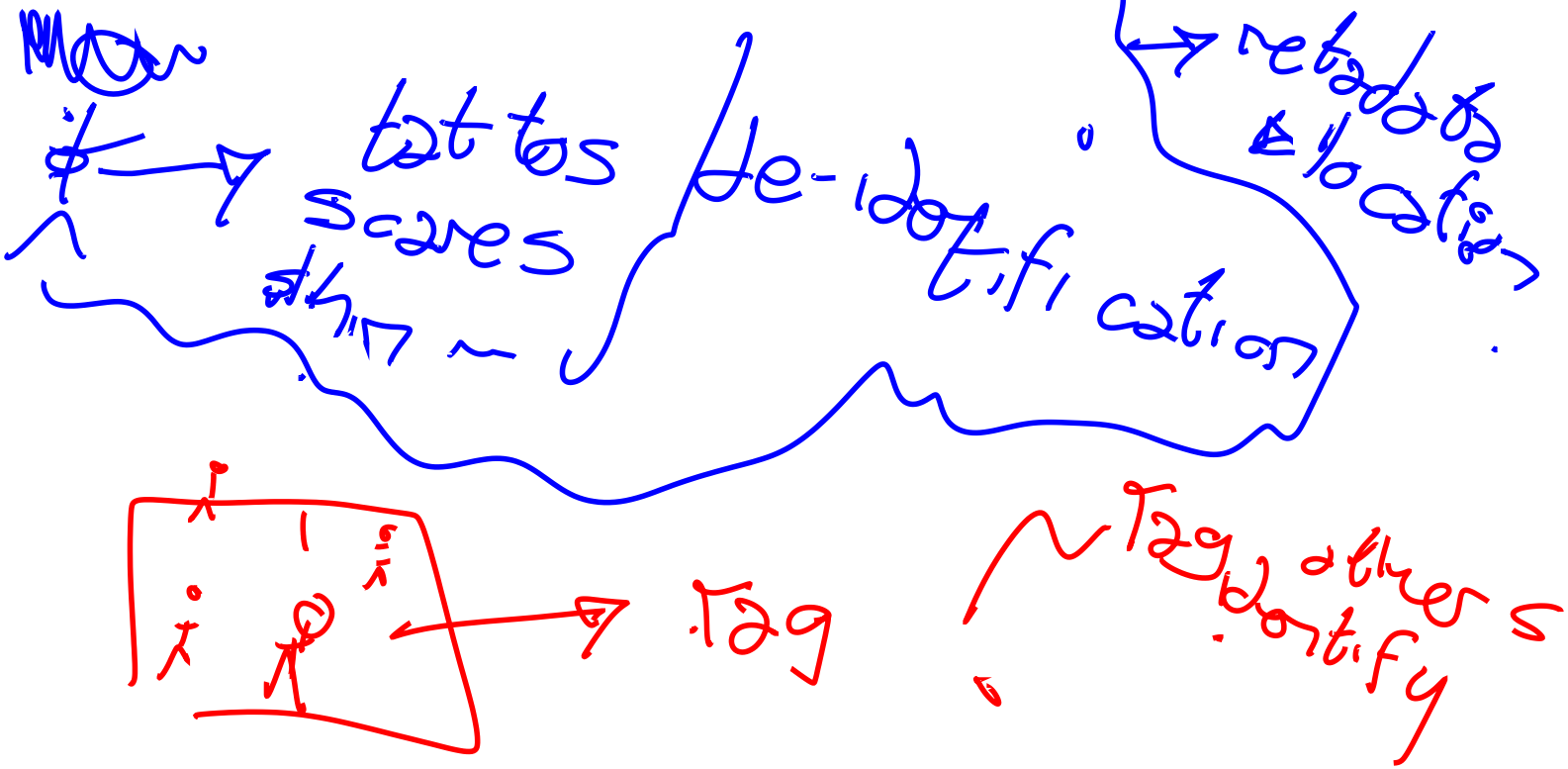
Selfies in Social Networks

Nude photos even with distorted faces are not enough. Or a photo of you at the beach where more people appear, you are **exposing** more people *without intention*.

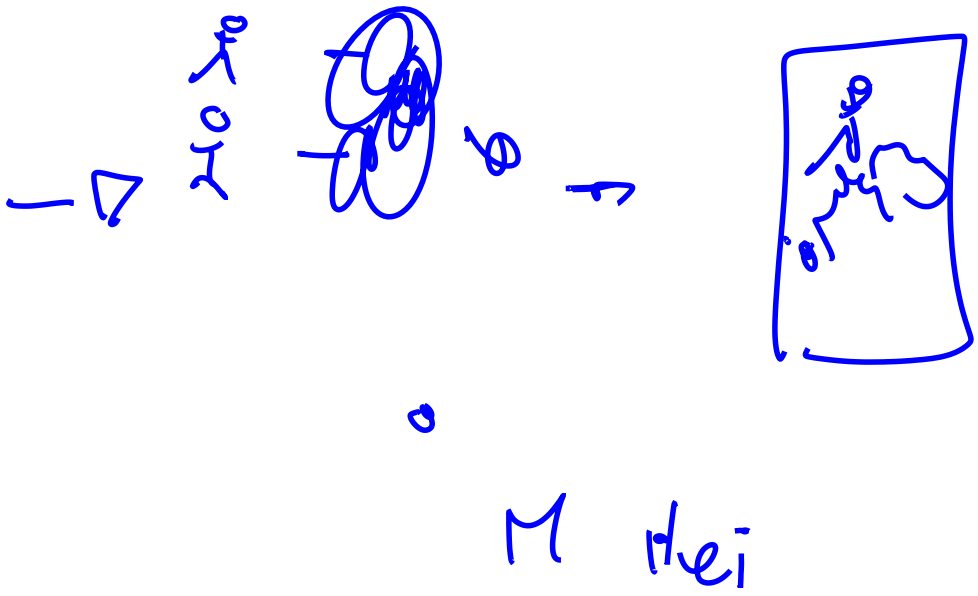


DNA for a Good Cause

If you share your **DNA** for a *research project*, you are also exposing part of DNA information of all your family. Maybe it is not ethical unless you have permission of all your family (even the *dead ones*).

Deepfakes, DeepVoices, a Deep Problem

Deepfakes, or any other kind of suplantation is a current problem, in special to **spread misinformation** or change peopleś mind in a bad way. Indeed, what is the *bad way*?



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Training Data, CopyRight, Laws, and AI

- Current artificial intelligence popular models, a.k.a. LLMs, are the current *attorneys preferred cases*.
- The train data used is the **first problem**: not is always public, not always is ethical to used. Also, a lot of legal conflicts with public and semi-public data. Who is the **owner** and how to respect its **creation rights**?
- Who is the owner of *AI outputs*? there is **no laws** for that, the copyright could be just attached to a human or company figure.

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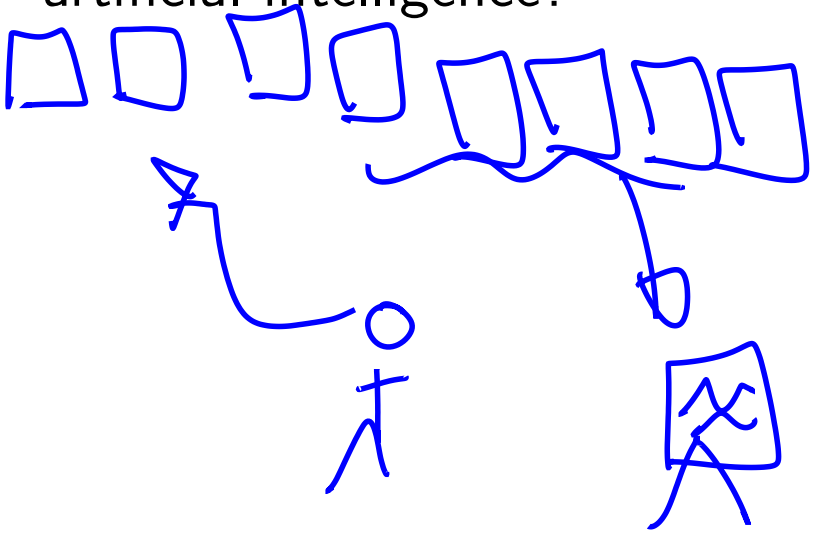
Picasso UD

- If you study Picasso a lot, and learn his style, are you a thief or need to pay money to Picassos family?
- Why does it is a problem in artificial intelligence?



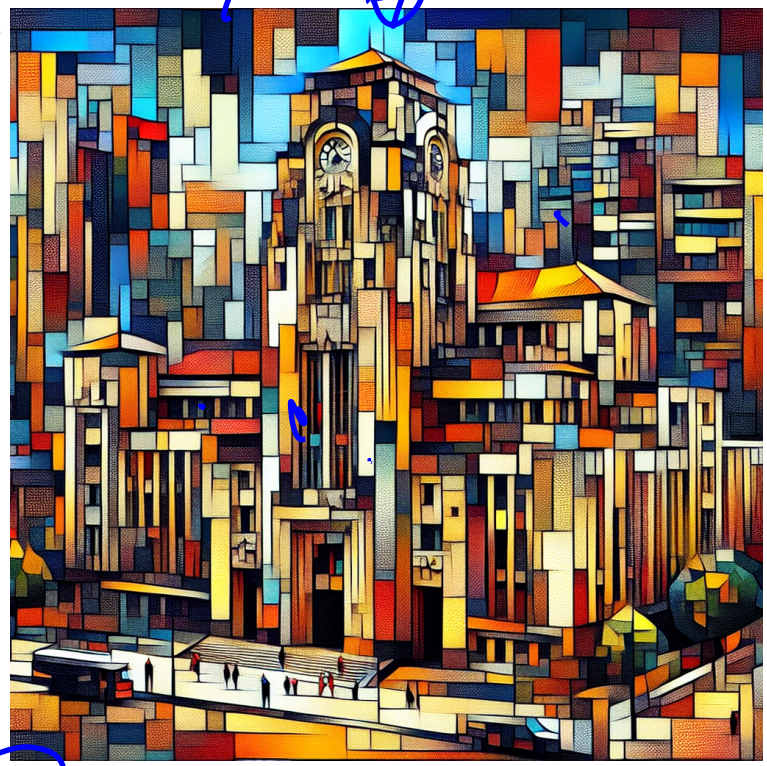


Figure: Prompt: Draw the build of Universidad Distrital Francisco Jose de Caldas in Bogota-Colombia in a Picasso style.

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Thanks!

Questions?

Repo: *https://github.com/EngAndres/ud-public/tree/main/courses/data-science-introduction*

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