# PHOTOS SOCIAL NETWORK

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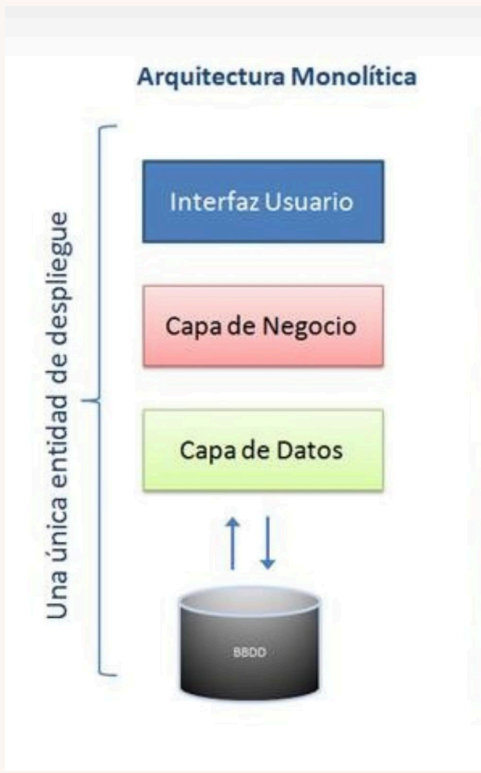
## INTRODUCTION:

Visual social networks like Instagram have become pillars of current communication. There are previous solutions for sharing photos, but replicating the full functionality of Instagram with a monolithic architecture presents an interesting challenge in terms of scalability and maintainability.

## GOAL:

The objective of this work is to develop a clone of Instagram using a monolithic architecture.

- Research Question: Can the core functionality of Instagram be replicated with a monolithic architecture?
- Expected end product: A functional web application similar to Instagram, allowing users to create accounts, upload photos, follow other users, comment and like posts.



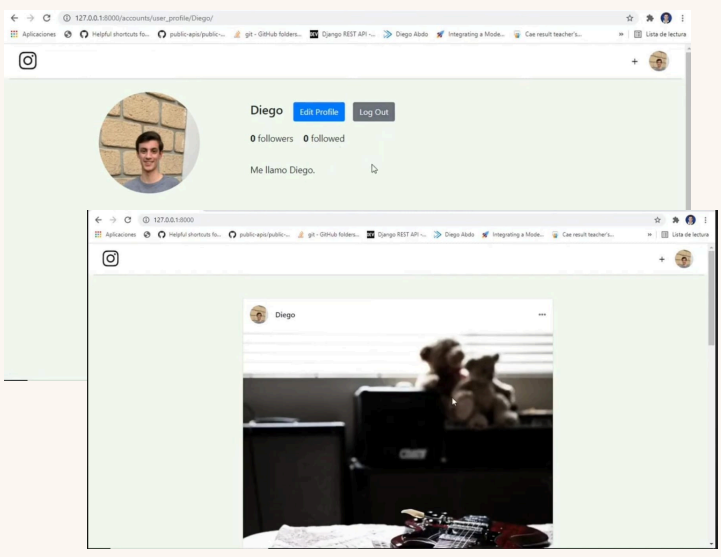

## PROPOSED SOLUTION:

The solution is based on a monolithic architecture, where all system components (user registration, image storage, follower logic, etc.) are located within a single application.

The presentation layer will manage user interaction through a web interface. The business layer will implement system logic such as logging, image processing, and user interactions. The data layer will store the information of users, posts, followers and likes.

## RESULTS:

It was possible to develop a functional web application that replicates the basic functionalities of Instagram, including creating accounts, registering users, uploading photos, following other users and interacting with posts through "likes" and comments.




In terms of performance, the application demonstrated good performance for a moderate number of users. However, some scalability limitations were observed when increasing traffic significantly.

In relation to maintainability, the monolithic architecture facilitated the initial implementation and understanding of the code.

## CONCLUSION:

Monolithic architecture has proven to be a viable option for building these types of applications, especially in the early stages of development. The simplicity and ease of implementation have allowed rapid progress of the project.

However, monolithic architecture also has limitations. Scalability may be affected as the user base and amount of data increases. Code maintainability can also be a long-term challenge since all functionality is contained within a single application.

## BIBLIOGRAPHY:

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