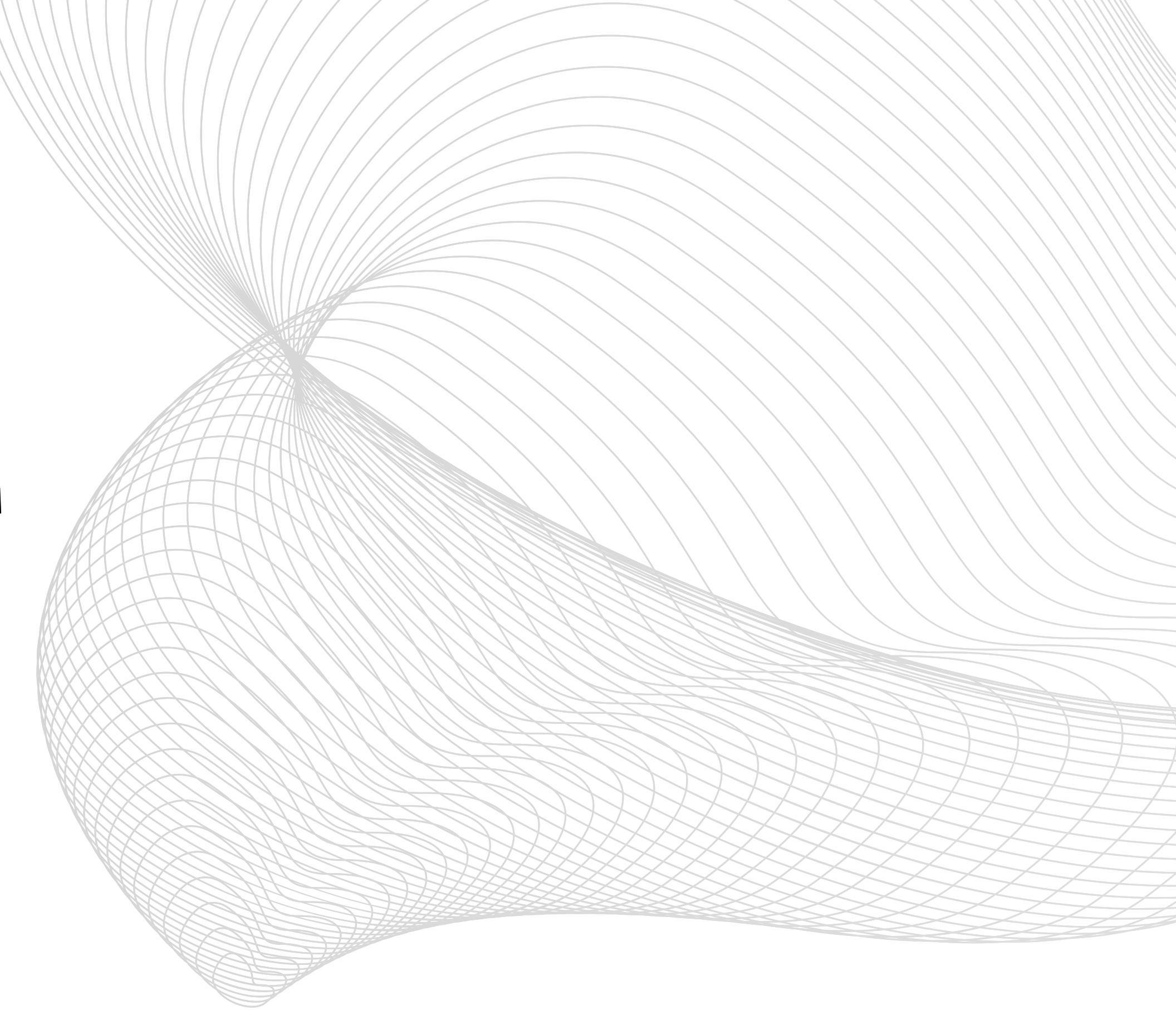




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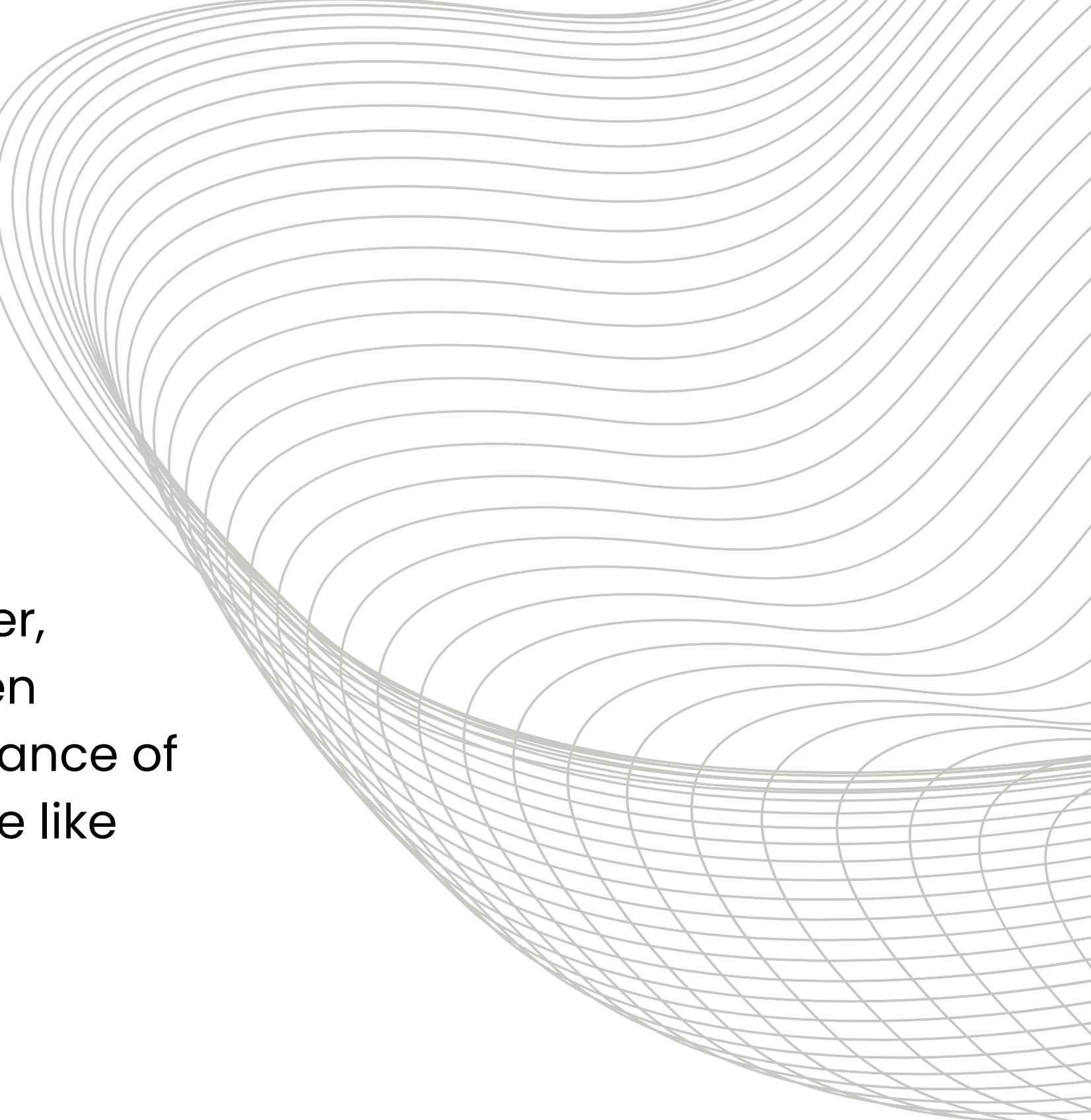
PROJECT

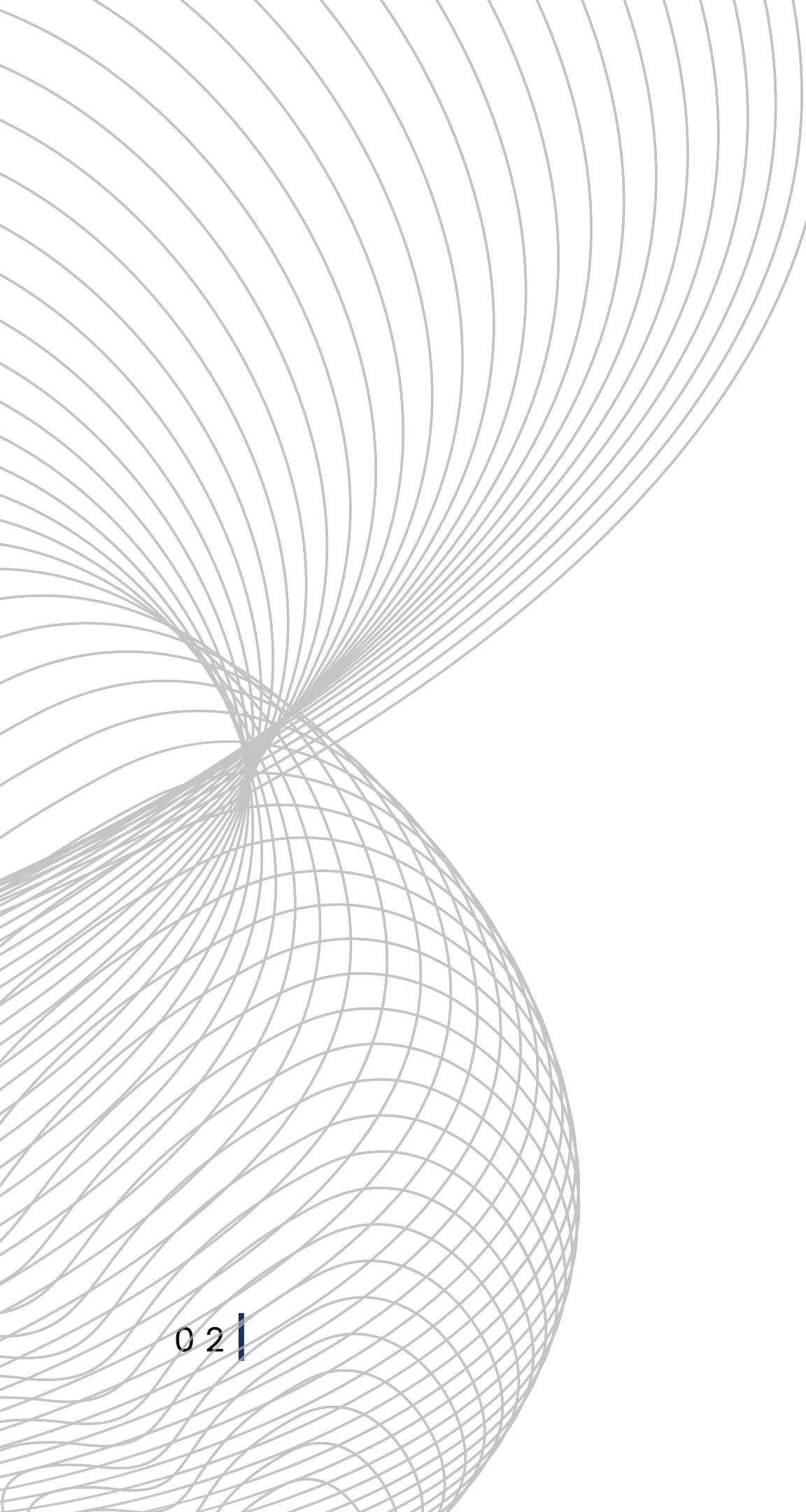
Instagram application



INTRODUCTION

In a world shaped by connectivity, communication stands as the linchpin of human interaction. However, distance barriers and constraints on expression often hinder seamless connection, highlighting the importance of innovative solutions for a truly connected experience like Instagram.





BACKGROUND

Instagram was founded in 2010 by Kevin Systrom and Mike Krieger. It gained popularity for its focus on photo sharing and filters. In 2012, Meta (previously Facebook) acquired Instagram for \$1 billion. Meta owns major platforms, including Facebook and WhatsApp, Since then, Instagram has continued to evolve.

PROBLEMS AND SOLUTIONS

Challenges arise from distance barriers in conventional communication and the limitations on personal expression and creativity prevalent in other communication forms.

Addressing these challenges, the solution lies in an application that serves as a platform for instant content sharing. With features such as posts, stories, comments, likes, and direct messaging, this application empowers users to bridge distances, express creativity, and cultivate communities, thereby overcoming communication constraints.

WORK PLAN

since we will develop a social media program that does not require very detailed requirements and the creation of a complete plan in advance, we used the incremental Model and agile methodology because it provides us with flexibility and we can rely on user comments to improve and develop the program.

FUNCTIONAL REQUIREMENTS

- 1- Users can signup and login to the app via email and password, or phone number, or Facebook account ,or Google account , or the Apple ID.
- 2- Users should be able to create, edit, and delete their profiles, including adding personal information, profile pictures, and bio details.
- 3-users have the ability to post various types of content such as photos, videos, stories, reels with options for adding captions, tags, and location information.
- 4-Users should be able to add like on photos, videos, stories, reels, and remove it , add comment and remove it, and share it
- 5- users should be able to reply to another comment also can add like and remove it
- 6-Users can follow and unfollow others users with corresponding notifications for new followers.
- 7-Users should be able to search for other users, hashtags, or locations via search button.
- 8-Users can send and receive private messages, including text, photos

NON-FUNCTIONAL REQUIREMENTS

1. Performance:

The system should be able to deliver quick response times, ensuring that actions such as image loading, scrolling, and interactions occur swiftly, contributing to a seamless user experience.

2. Reliability:

The system should be able to maintain high availability, minimizing downtime and ensuring that features like posting, messaging, and content discovery are consistently reliable for users.

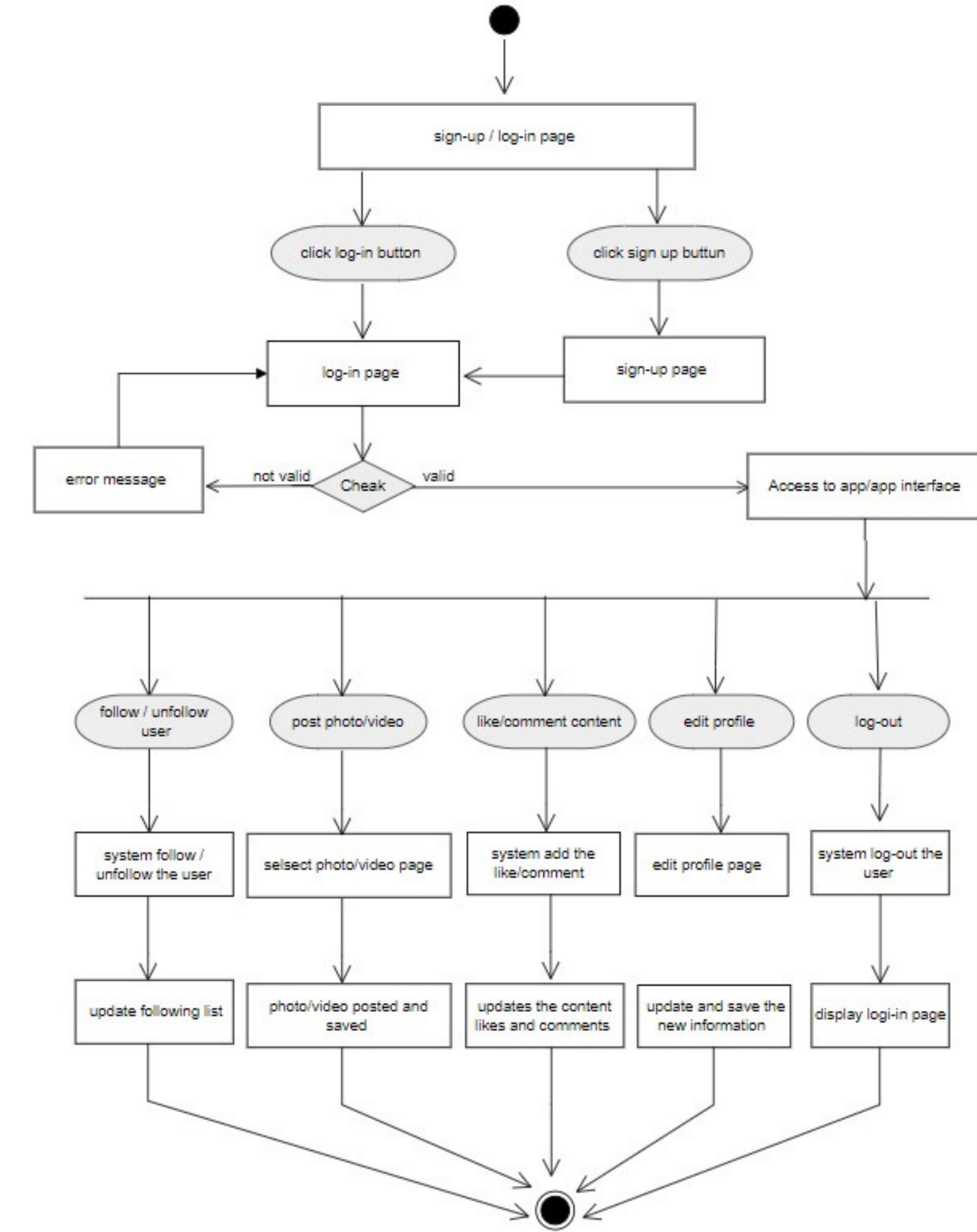
3. Security:

The system should be able to implement robust security measures, including encryption and secure authentication processes, to protect user data and ensure the confidentiality of personal information.

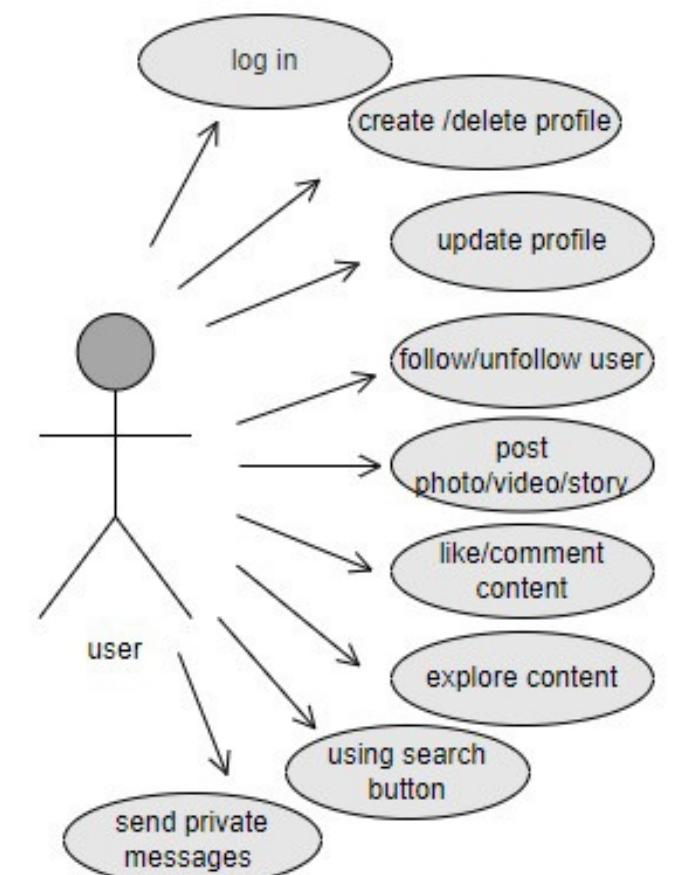
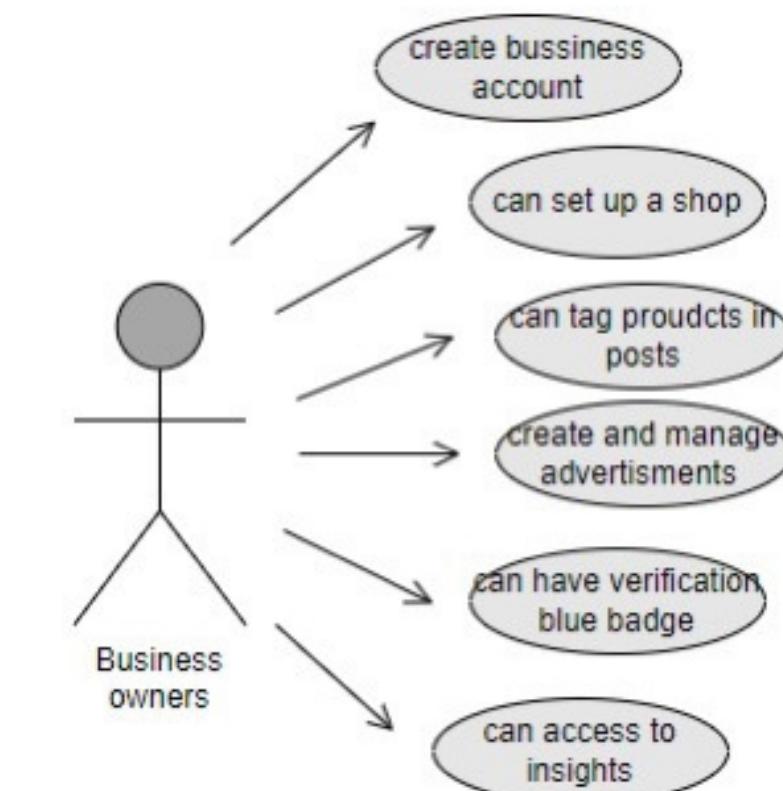
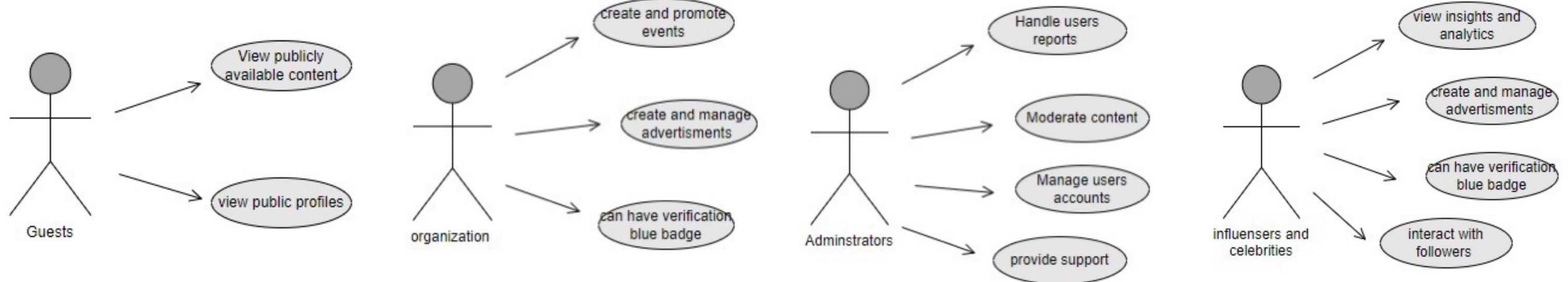
4. Usability:

The system should be able to provide a user-friendly interface, incorporating intuitive design elements, straightforward navigation, and clear instructions to enhance overall usability and encourage user engagement.

ACTIVATY DIAGRAM:

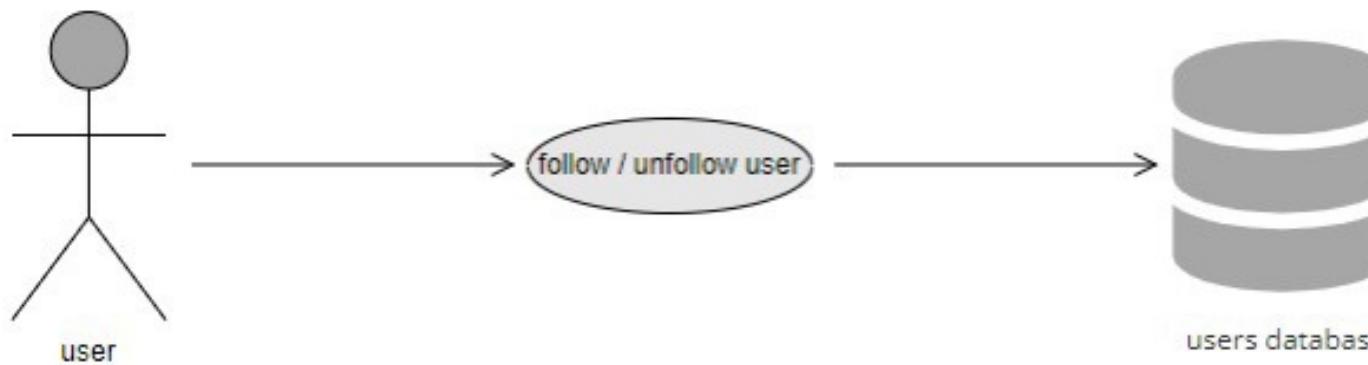


USE CASE MODLLING



USE CASE MODLLING

Table 1:

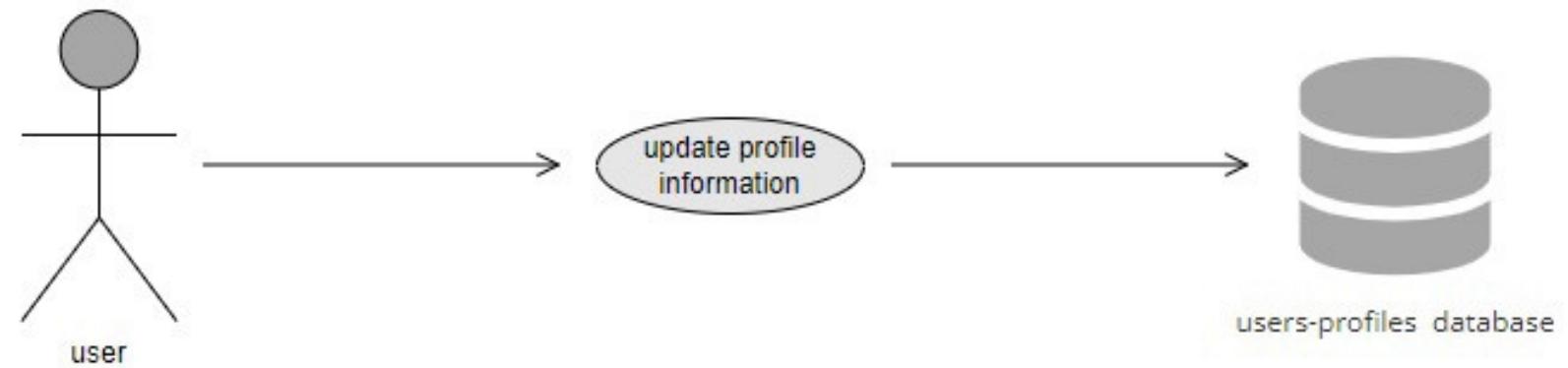


Users Follow/unfollow users

Actor	User and users database
Description	This show the interaction between the user who wants to follow or unfollow another users and users database
Data	User id – followed user id/unfollowed user id
stimulus	The User wants to follow or unfollow another user
Response	The other user followed or unfollowed and the following list updated (increased or decreased)

USE CASE MODLLING

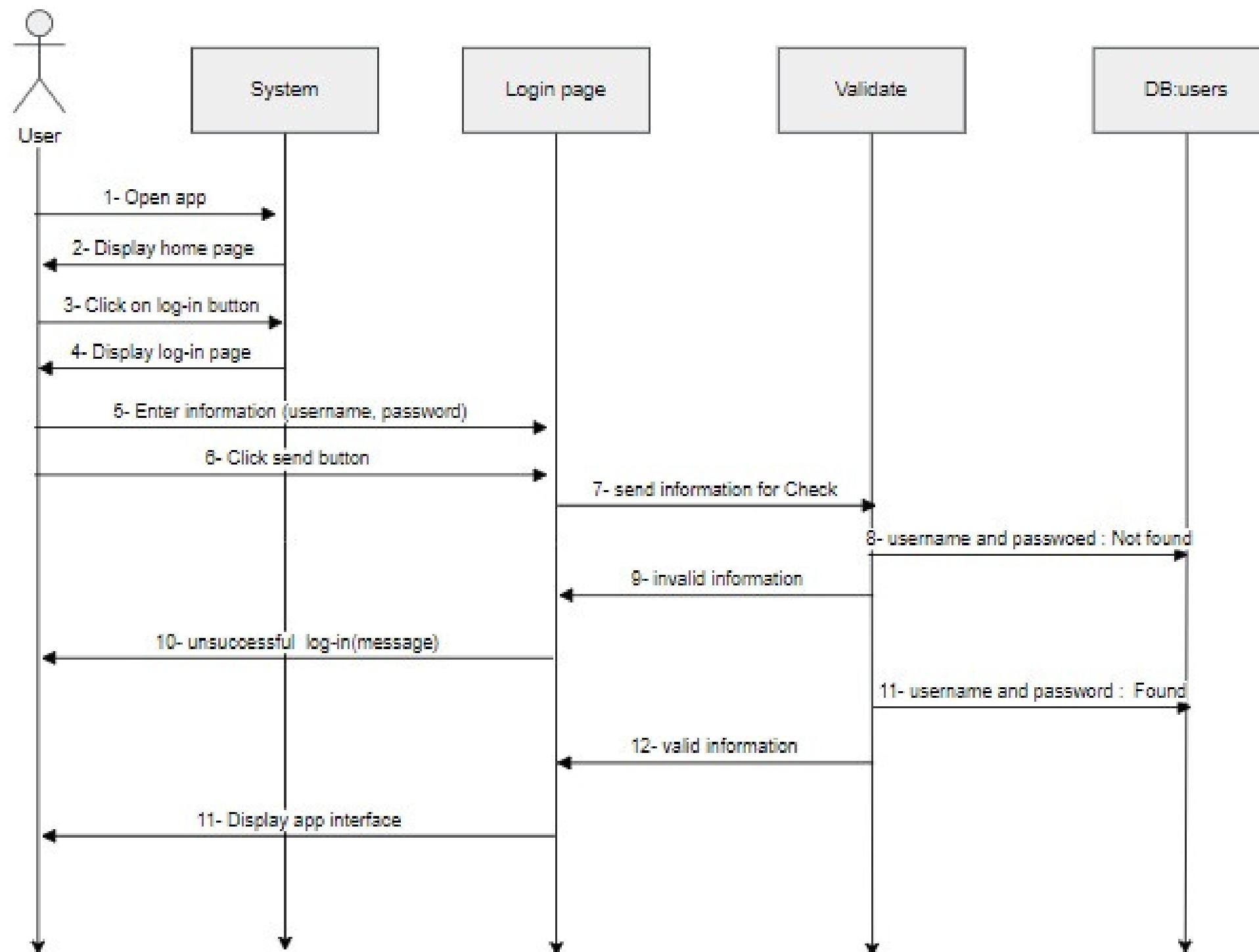
Table 2:



User Update profile information.

Actor	user and users-profiles database
Description	This show the interaction between the user who wants to update profile information (Bio – picture – name – username) and users-profiles database
Data	User id-the information user want to update –the new information
stimulus	The user wants to update profile information
Response	The profile is updated and the new information added

SEQUENCE DIAGRAM



CLASS DIAGRAM

Classes:

User class	Photo class	video class
User ID – int Username – string Email – string Password – string Followers – int list Following – int list	Photo ID – int Photo – image Caption – string Posted Date -date Likes – int Comments – string list Comments NO – int	video ID – int video – video Caption – string Posted Date -date Likes – int Comments – string list Comments NO – int
Signup() Login() Follow-user() Unfollow-user() Post-photo() Post-video() Like() Comment() Send-message()	Update-caption() Delete-Photo()	Update-caption() Delete-video()
message class	like class	comment class
MessageID-int MeassgeText –string Message Sender ID-int Message Receiver ID – int	LikeID – int User ID – int Photo ID-int Video ID-int	CommentID- int Comment Text – int User ID – int Photo ID-int Video ID-int
Send-message() Delete-message()	Add-like() Remove-like()	Add-comment() Delete-comment ()

CLASS DIAGRAM

Associations:

