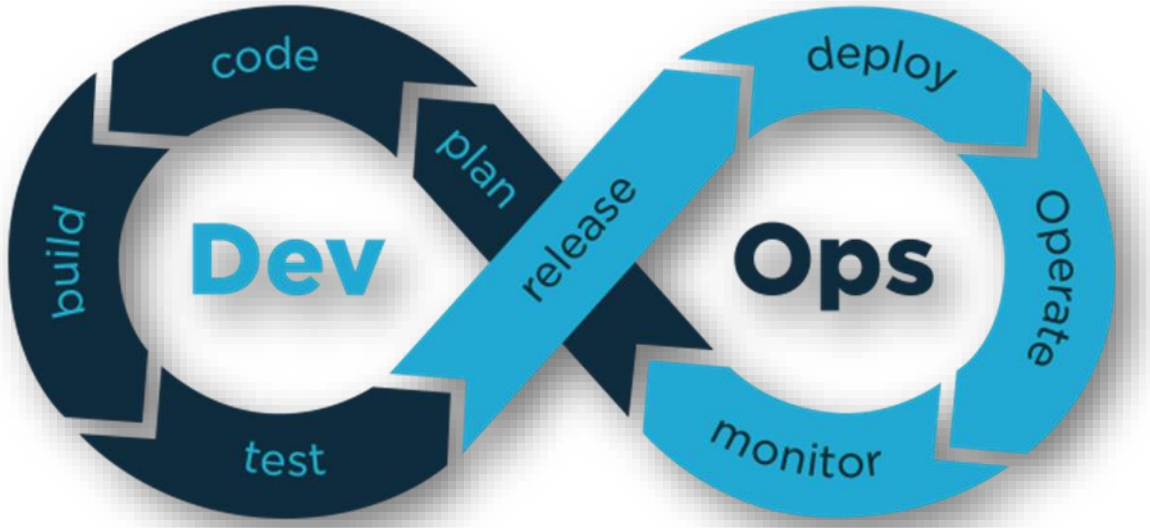
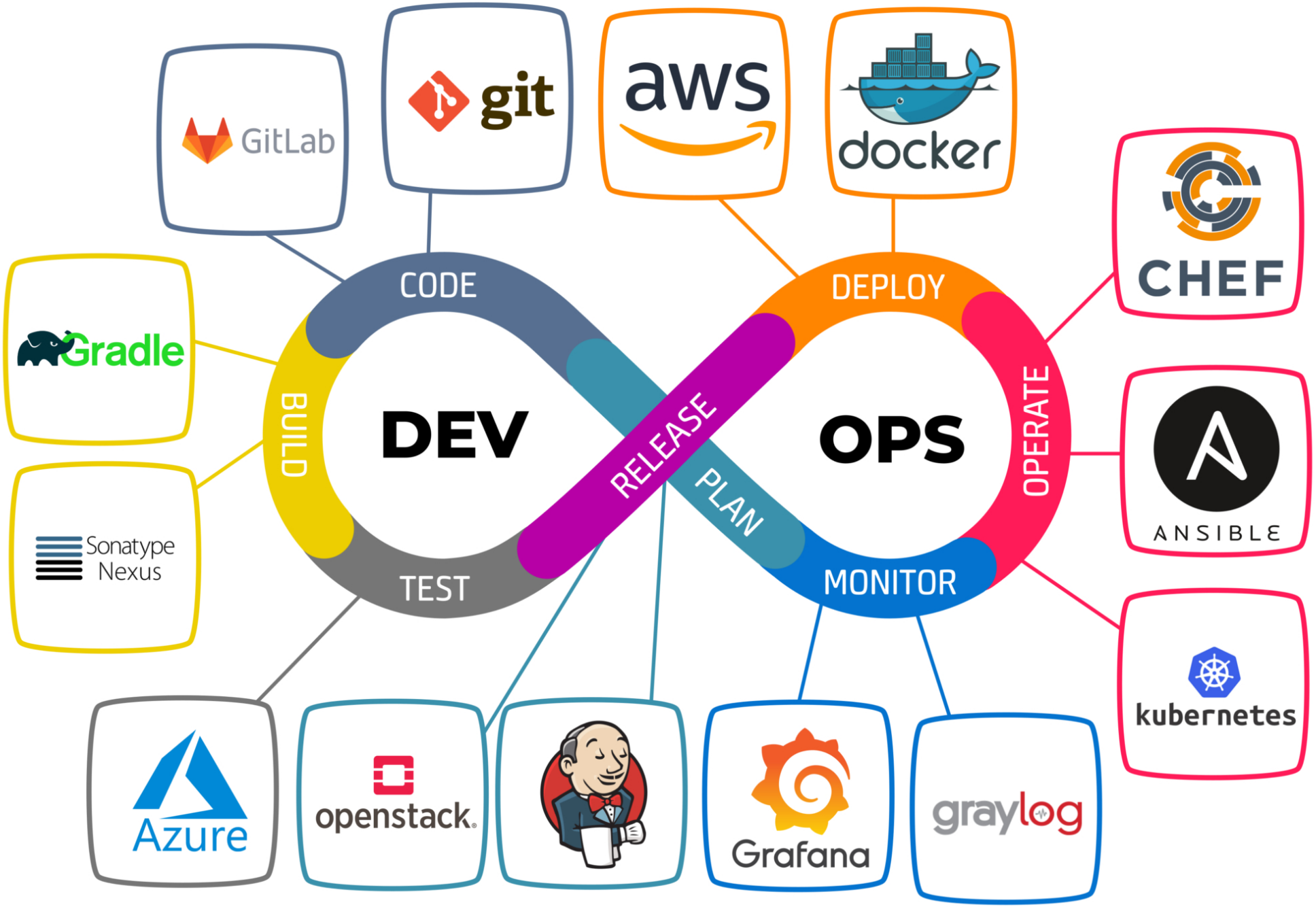
CaChat

Is a Cross-Platform chatting Application targeting to allow users to use Real-Time chatting.

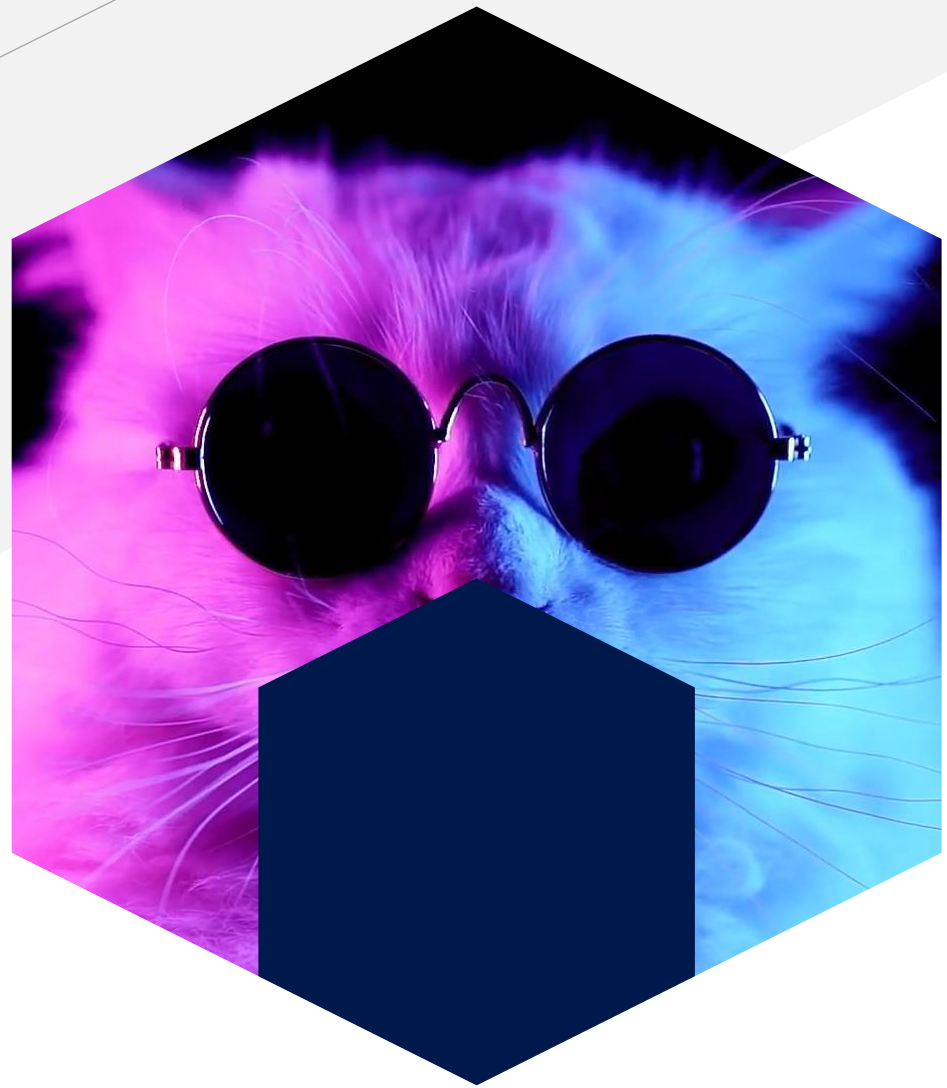
Dev-Ops

It aims to shorten the systems development life cycle and provide continuous delivery with high software quality. DevOps is complementary with Agile software development; several DevOps aspects came from the Agile methodology.




GitLab
git
aws
docker
CHEF
Gradle
CODE
DEPLOY
BUILD
DEV
RELEASE
PLAN
OPS
OPERATE
ANSIBLE
Sonatype Nexus
TEST
MONITOR
kubernetes
Azure
openstack
Grafana
graylog

Requirements



Requirements

Functional :

- Authentication
- Recent conversation with pictures of users or groups.
- Activity status (online - Last seen).
- Search for Users.
- Initiate conversation with user or group.
- Real time sending & receiving text messages.
- Ability to create new user with name, Profile picture, Email and password.

Requirements

Non-Functional :

1- Security:

Firebase

The login System using Email & Password
Each User has UID (User ID) which is the Password Hashed

2- Usability:

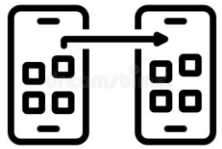
the application should be
easy to use we will also try to provide
Cachat in Arabic & English.

Requirements

Non-Functional :

3- Portability:

User can Login at anytime from
Any device using any version of Cachat



4- Compatibility:

the application should be fully compatible on both iOS devices and android devices.

Requirements

Non-Functional :

5- Reliability:

application should be reliable
and performing consistently well.

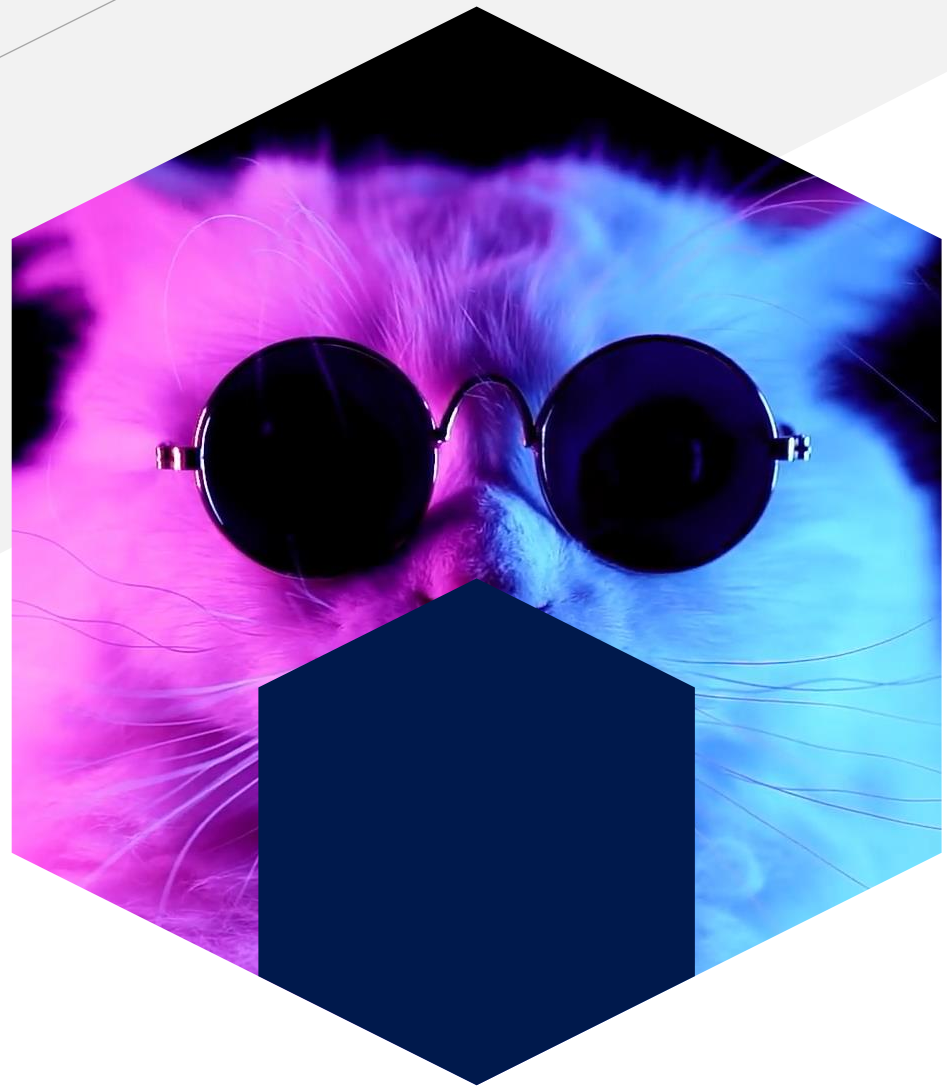
6- Performance:

application should be lightweight
Which will be ensured while publishing
and send messages instantly.

7- Efficiency:

Gradle and Cocoapods microservices
Is responsible for providing the best library
For the OS version

Diagrams



Data Flow Diagram Explanation:

The user can register, log in and log out from the system then this methods will pass through

Authentication that will be Stord in database as

The data and time which will be used to track

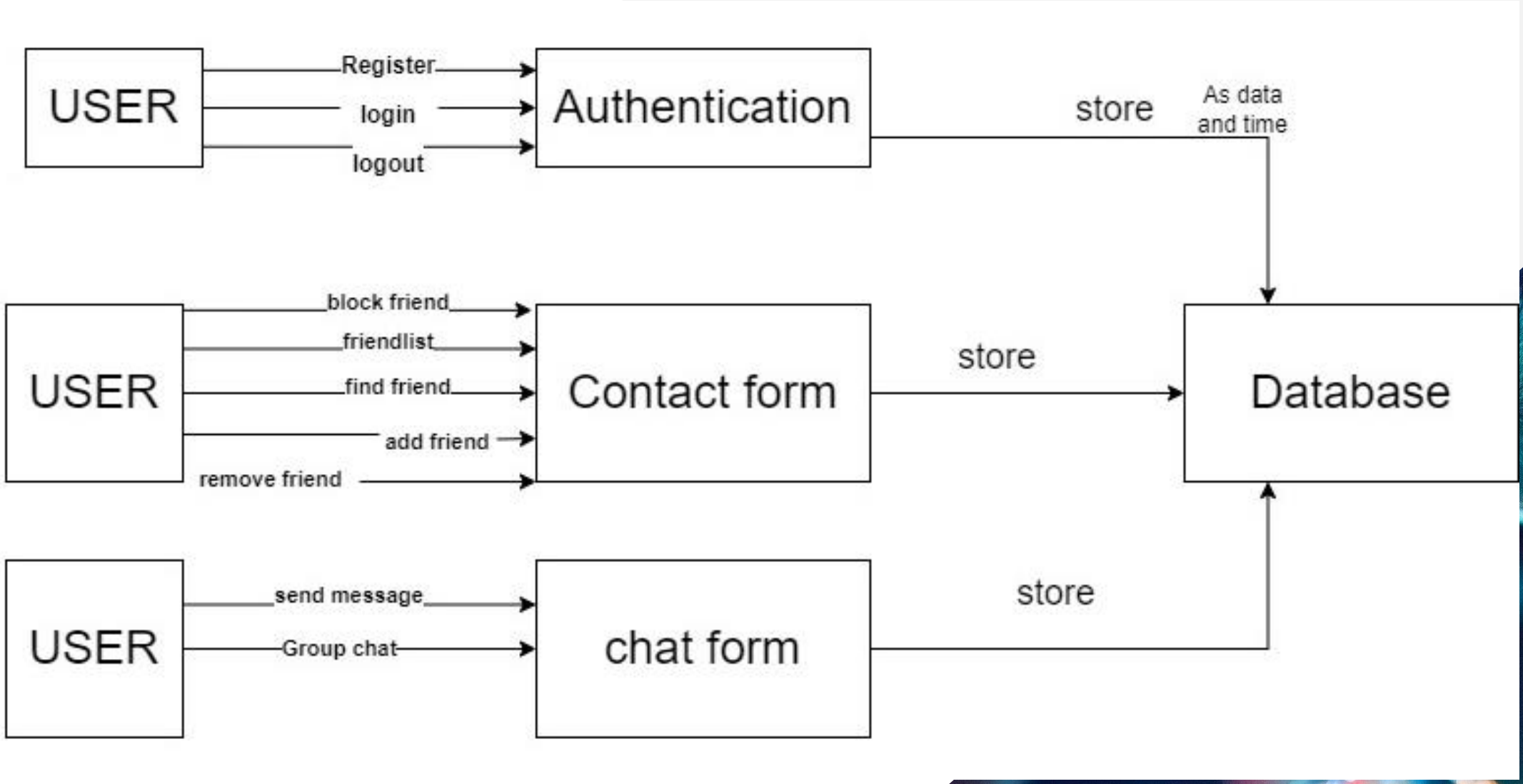
Service as last seen service.

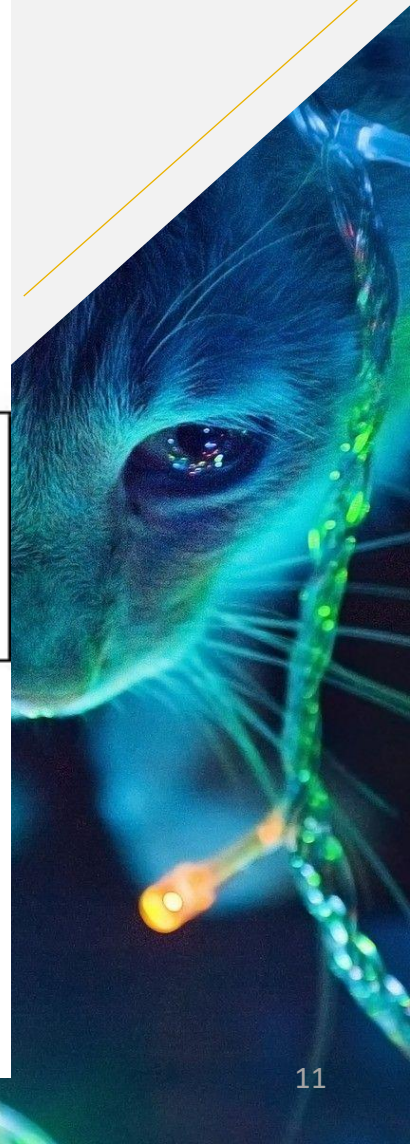
User can: block, find, add, remove another user

And also can send a message and this methods

Will store it in the database.

Data Flow Diagram





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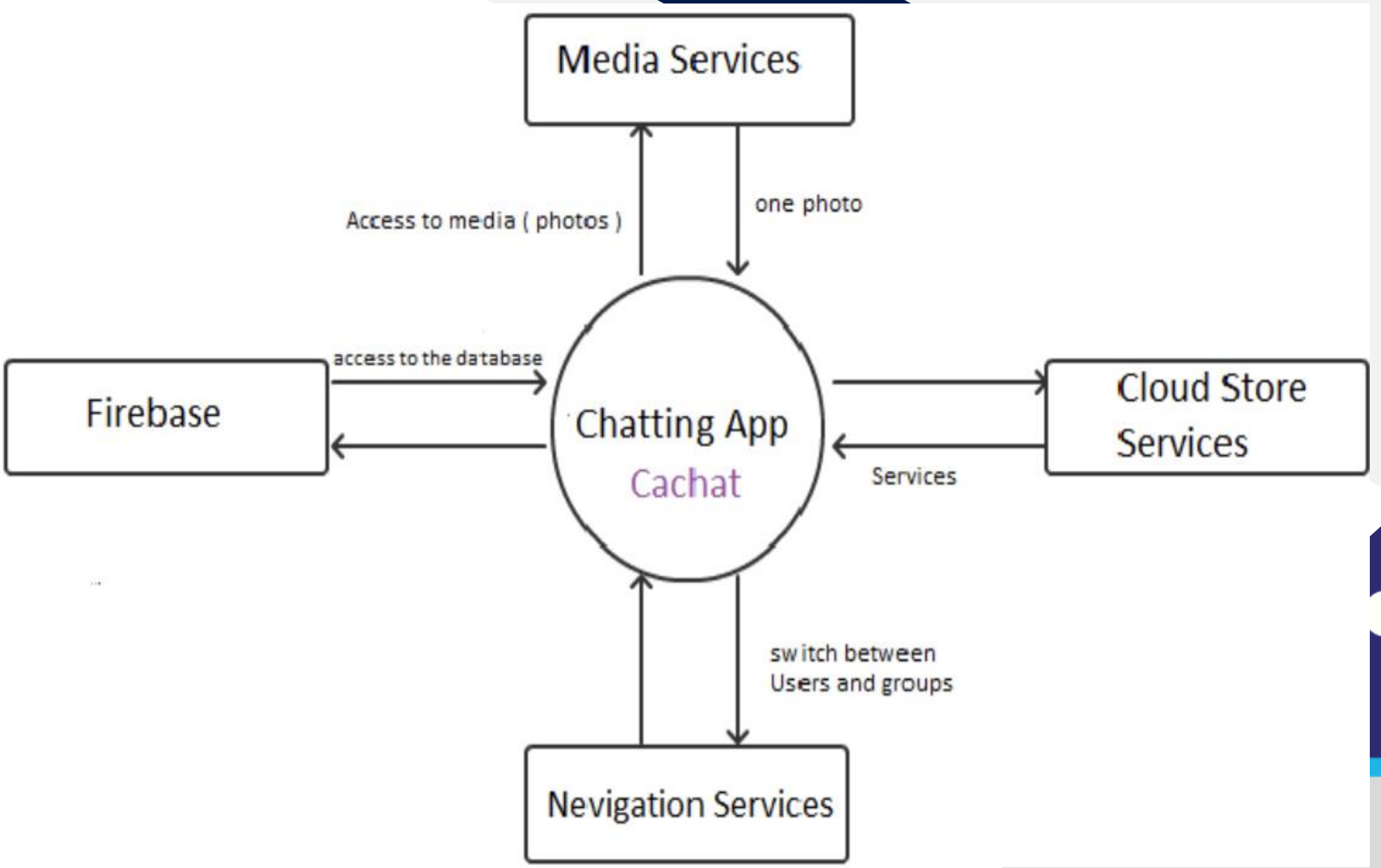
Media Services
Access to media (photos)
one photo
Firebase
access to the database
Chatting App
Cachat
Cloud Store
Services
Services
switch between
Users and groups
Nevigation Services

LOGIN Sequence Diagram

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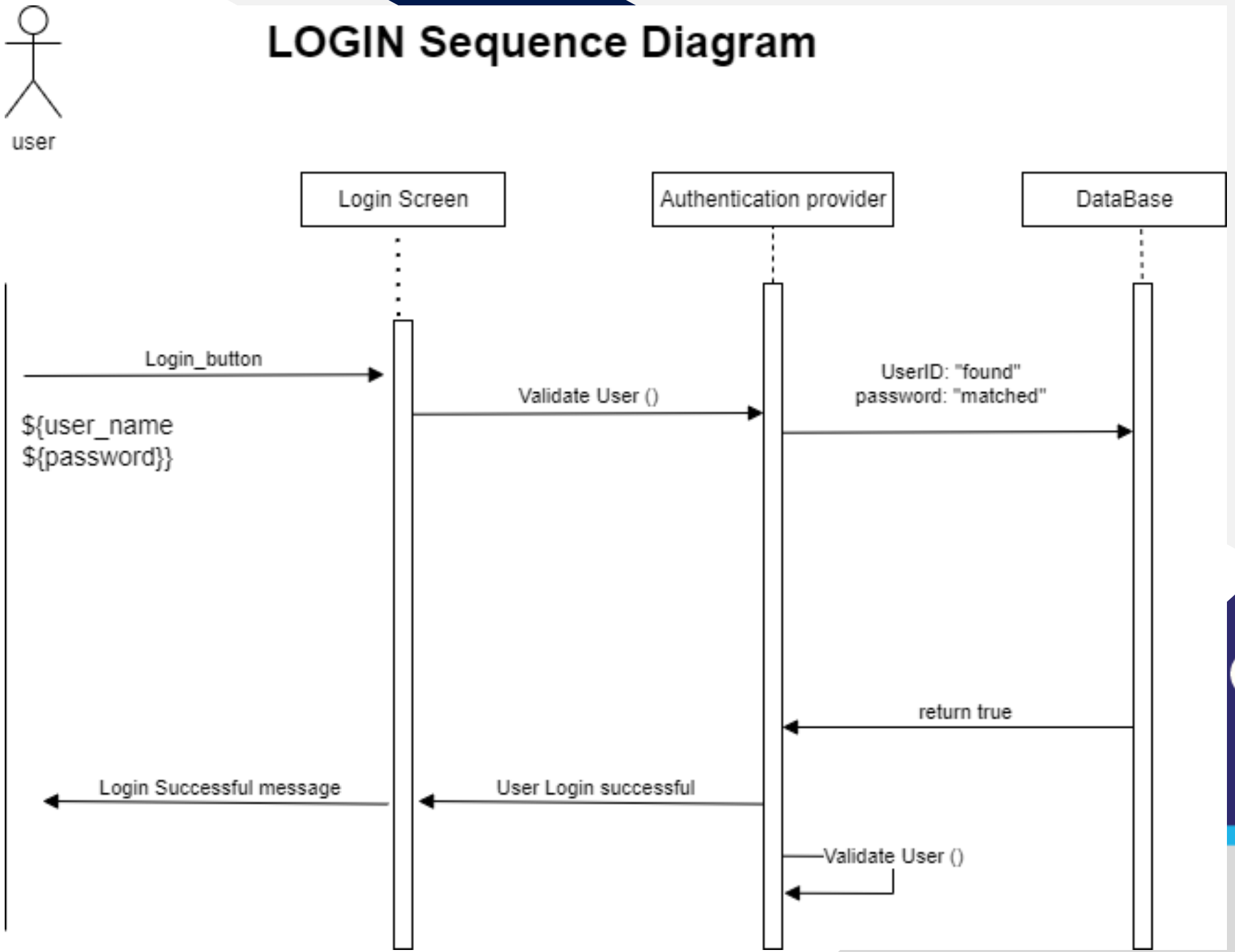

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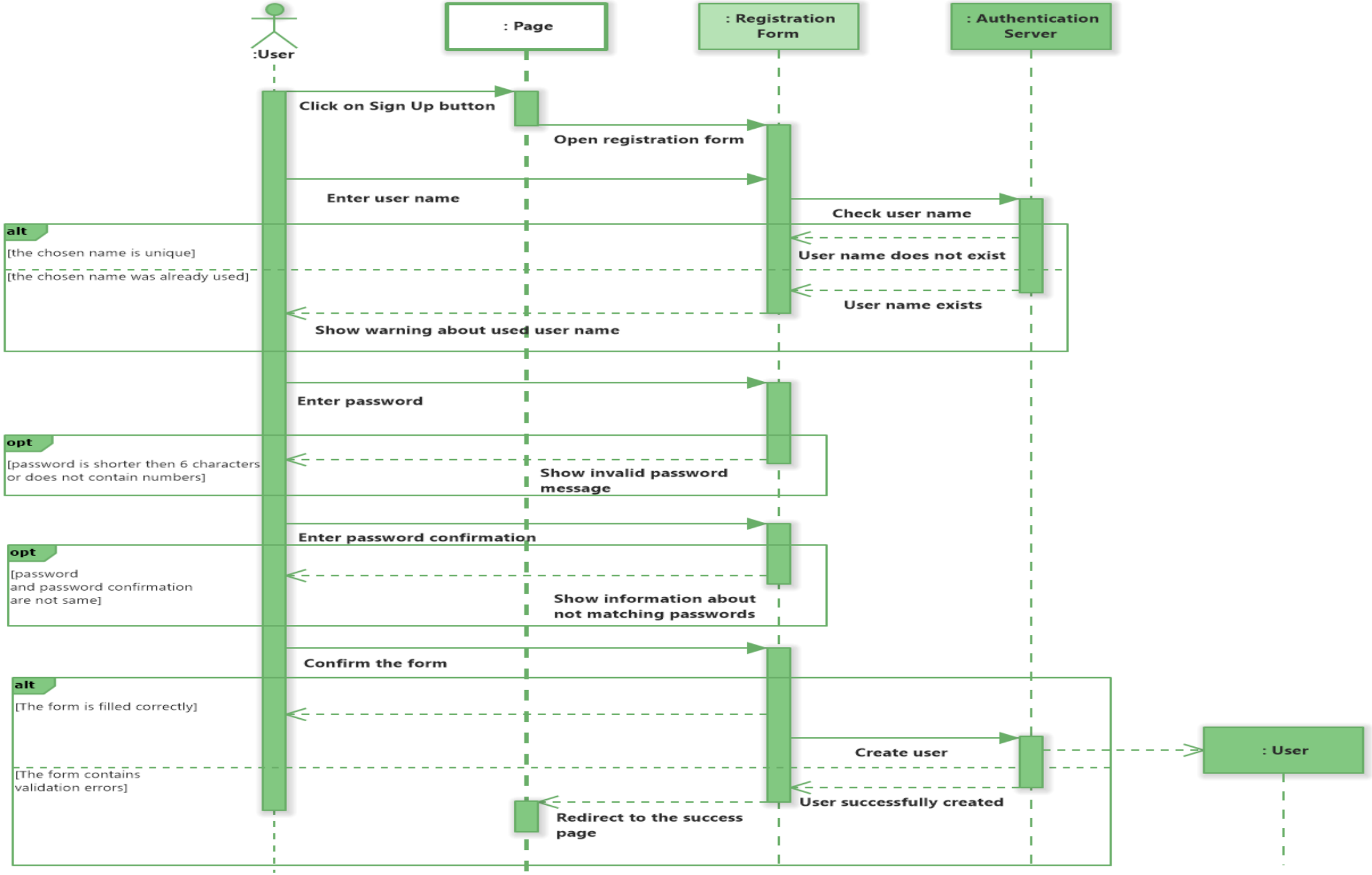
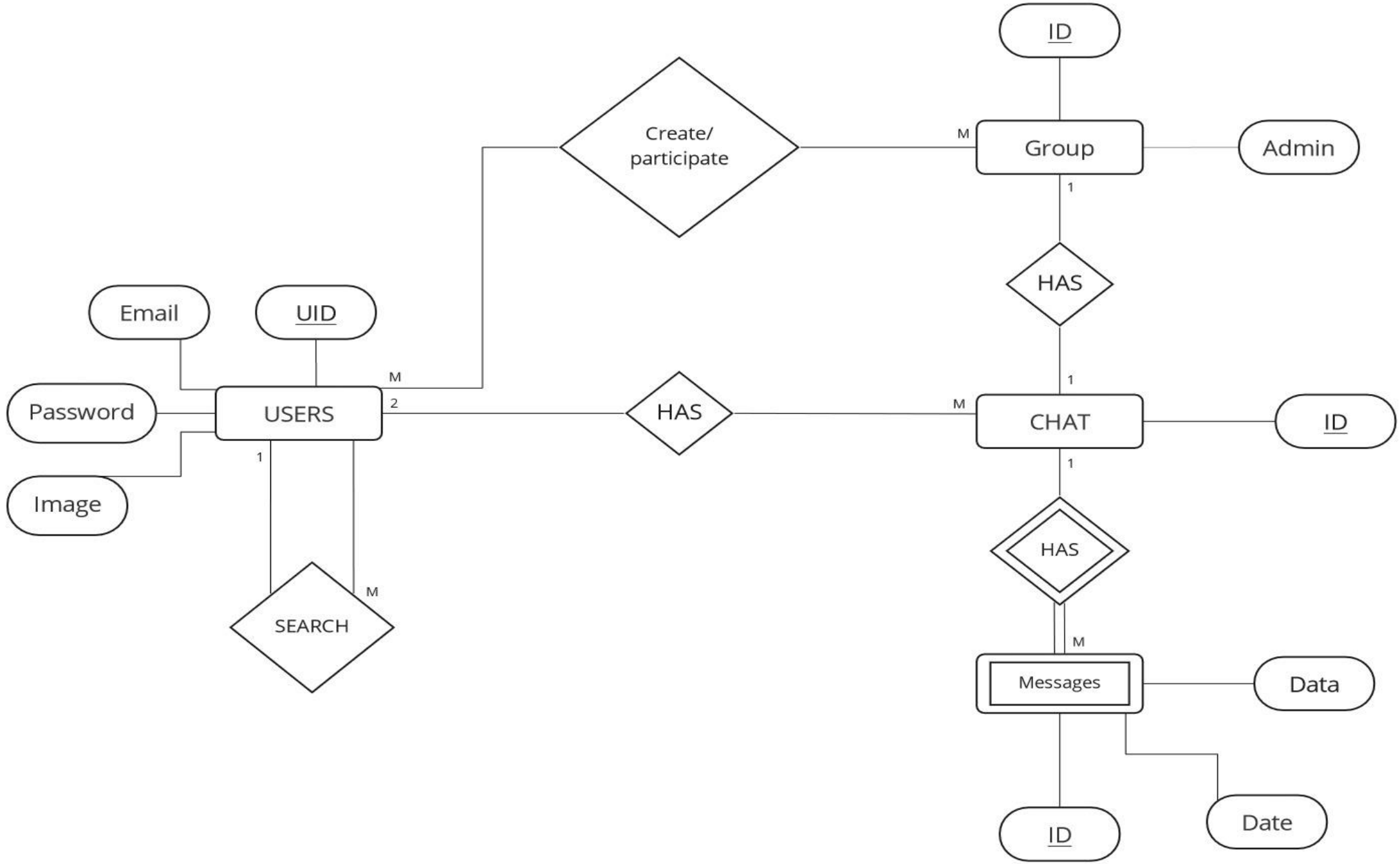
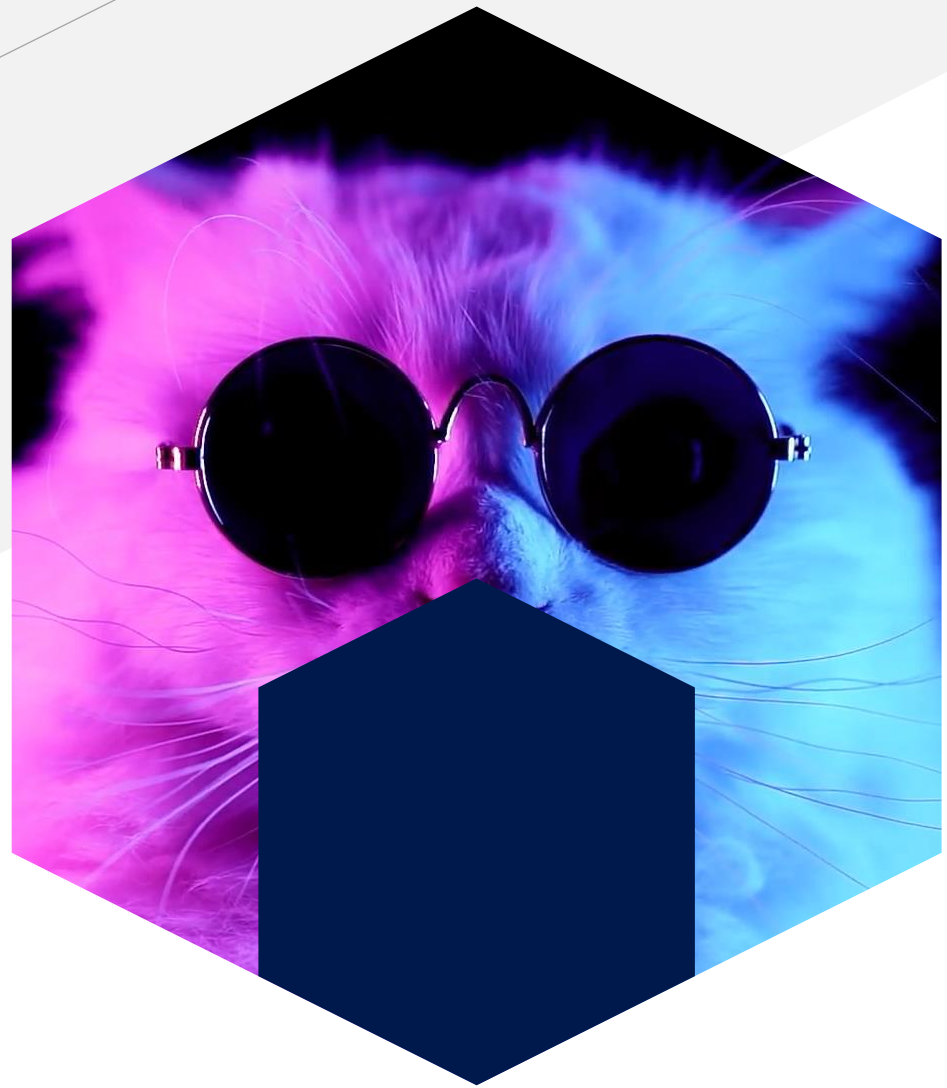

:User
: Page
: Registration Form
: Authentication Server
Click on Sign Up button
Open registration form
Enter user name
Check user name
alt
[the chosen name is unique]
User name does not exist
[the chosen name was already used]
User name exists
Show warning about used user name
Enter password
opt
[password is shorter then 6 characters or does not contain numbers]
Show invalid password message
Enter password confirmation
opt
[password and password confirmation are not same]
Show information about not matching passwords
Confirm the form
alt
[The form is filled correctly]
Create user
: User
[The form contains validation errors]
User successfully created
Redirect to the success page

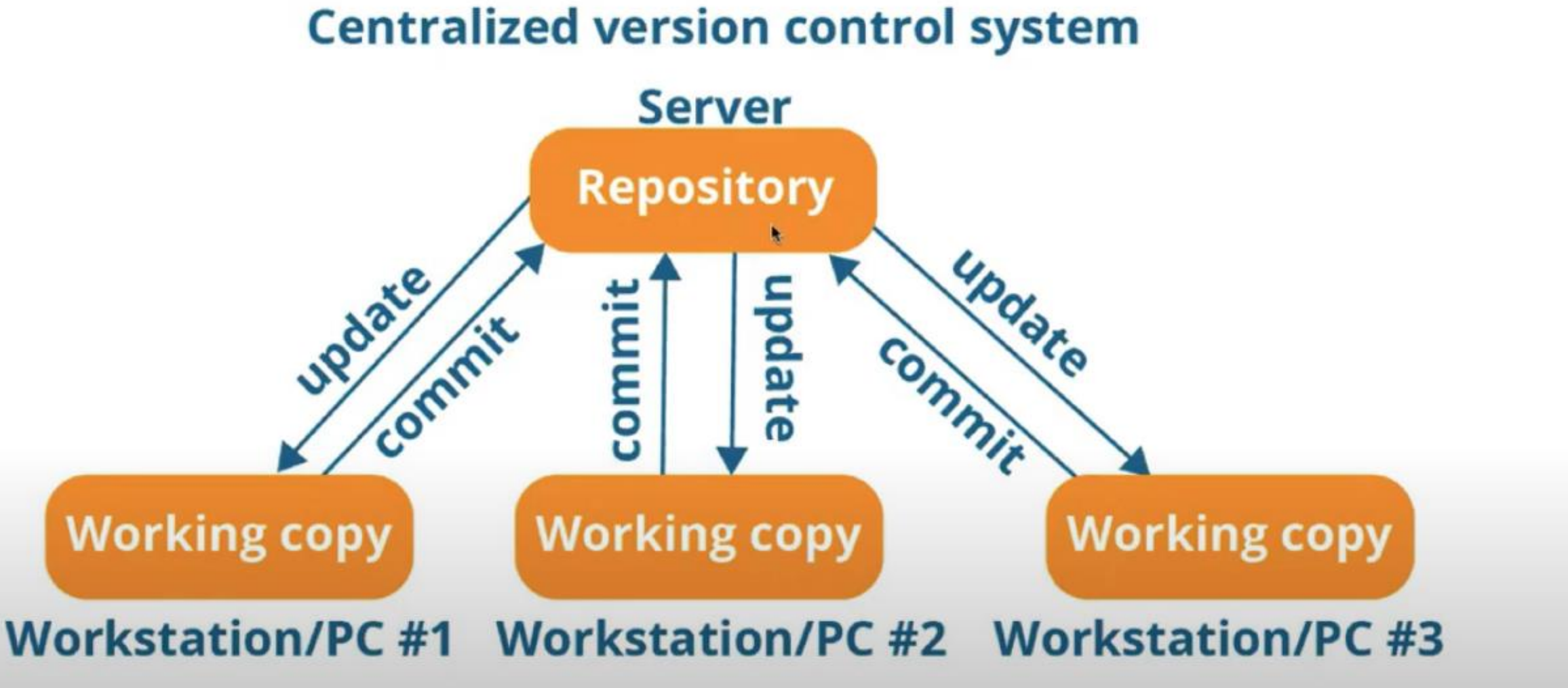

ID
Create/
participate
M
Group
Admin
1
HAS
Email
UID
M
Password
USERS
2
HAS
M
CHAT
ID
1
1
Image
HAS
SEARCH
M
M
Messages
Data
ID
Date

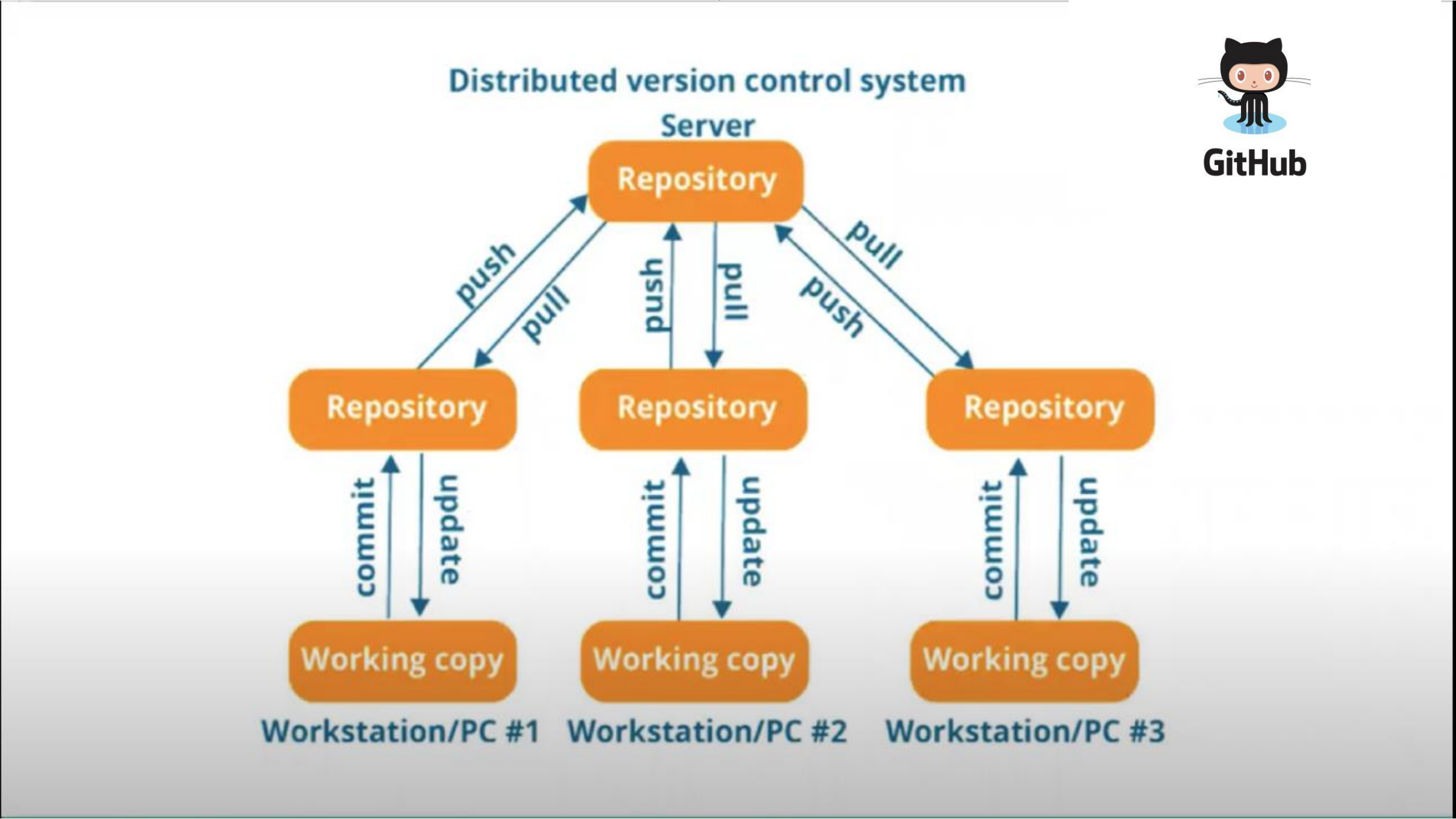
Mircoservices



Version Control

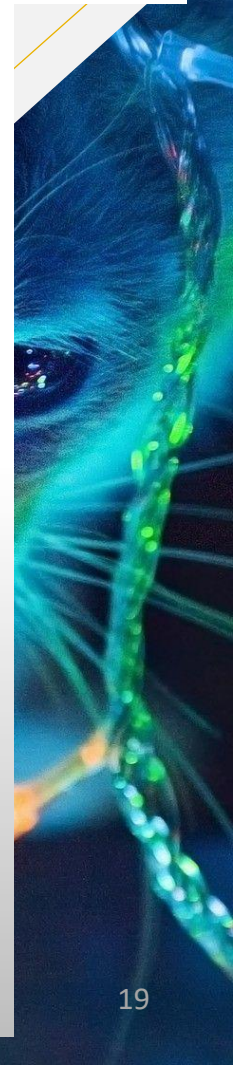
GitHub




Distributed version control system
Server
Repository
push
pull
push
pull
pull
push
Repository
Repository
Repository
commit
update
commit
update
commit
update
Working copy
Working copy
Working copy
Workstation/PC #1
Workstation/PC #2
Workstation/PC #3

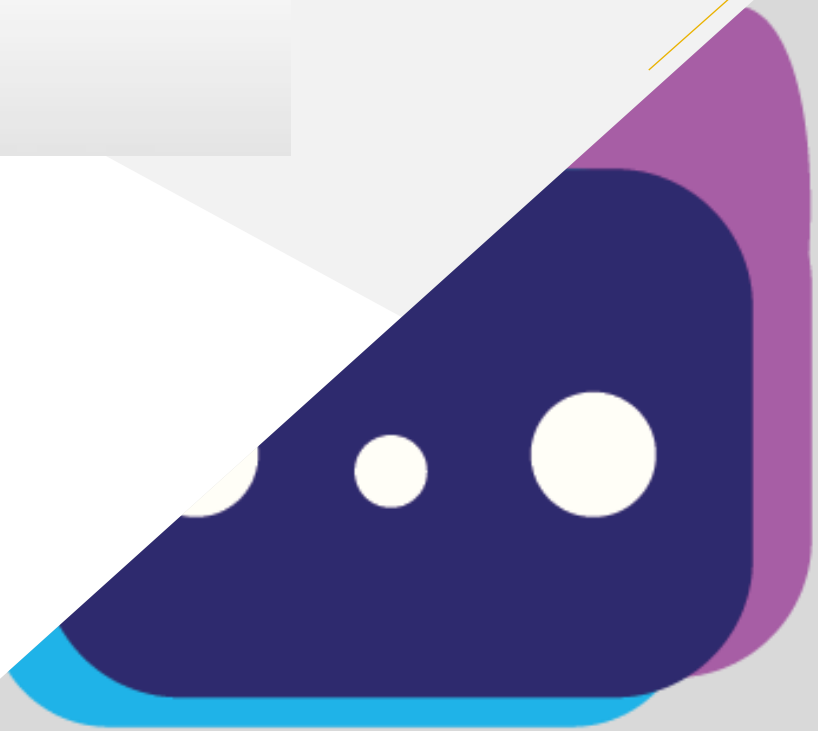
GitHub

```
apply plugin: 'com.android.application'

android {
    compileSdkVersion 21
    buildToolsVersion "21.1.2"

    defaultConfig {
        applicationId "com.example.myapplication"
        minSdkVersion 15
        targetSdkVersion 21
        versionCode 1
        versionName "1.0"
    }

}

dependencies {
    compile fileTree(dir: 'libs', include: ['*.jar'])
    compile 'com.android.support:appcompat-v7:21.0.3'
}
```



```
android {
    productFlavors {
        paid {
            applicationId 'com.example.myapplication.paid'
        }
        demo {
            applicationId 'com.example.myapplication.demo'
        }
    }
}
```

Gradle is a build system, which is responsible for code compilation, testing, deployment and conversion of the code into . dex files and hence running the app on the device



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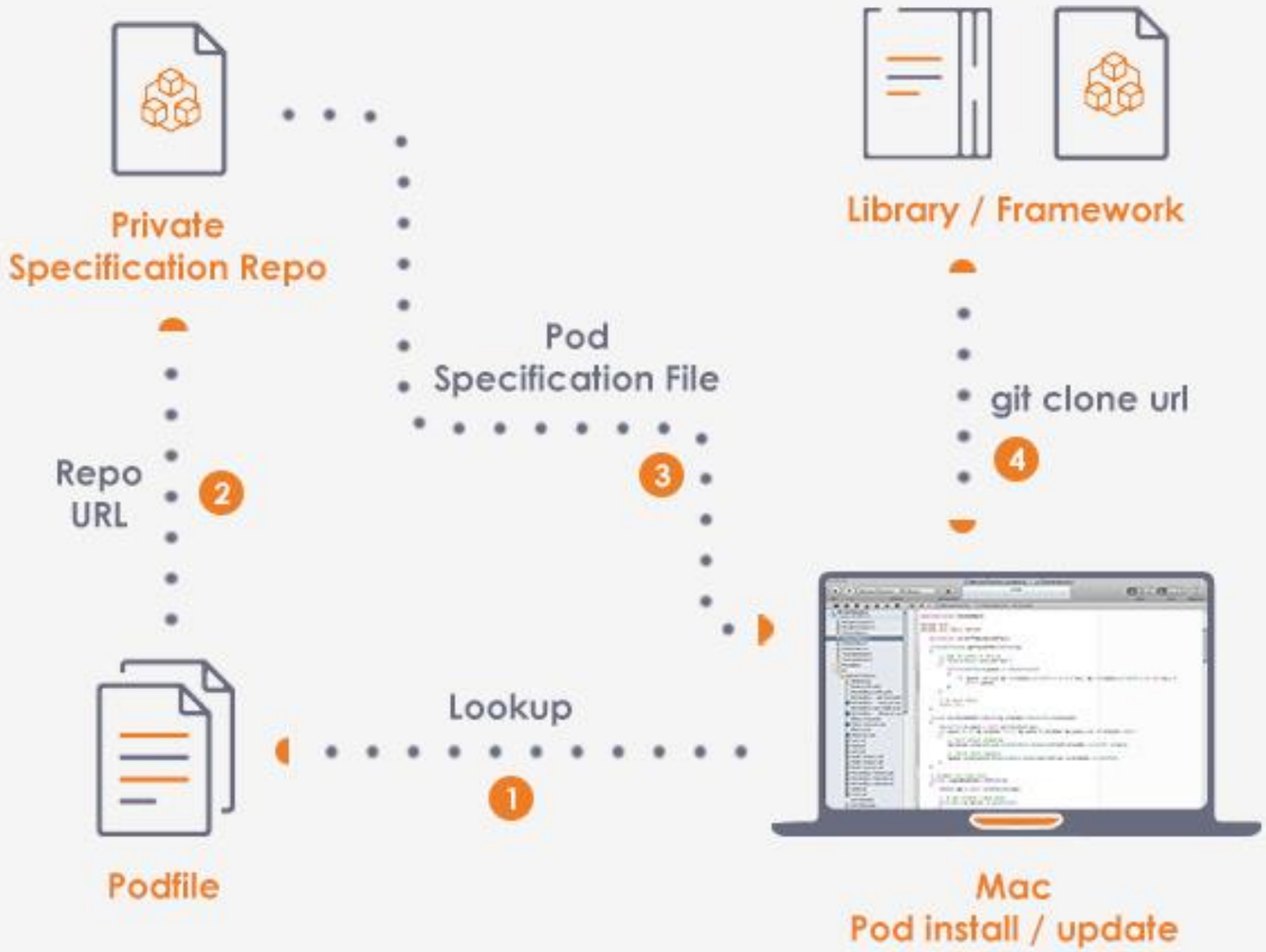
Private
Specification Repo
Library / Framework
Pod
Specification File
git clone url
Repo
URL
2
3
4
Lookup
1
Podfile
Mac
Pod install / update

Credits:

Yasmin Khaled

Mostafa Essam

Khaled Hosny

Remas Zakaria

Salma Mahmoud

Omar Sheriff