



# Distributed Systems

*Laboratory activity*

Name: Paul Petrut-Betuel  
Group: 30442  
Email: paulpetrut02@gmail.com

Teaching Assistant: Antonesi Gabriel



# Contents

1	Requirements	3
2	Conceptual architecture of the distributed system	4
3	UML Deployment diagram.	5

# Chapter 1

## Requirements

Develop an Energy Management System that consists of a frontend and two microservices designed to manage users and their associated smart energy metering devices. The system can be accessed by two types of users after a login process: administrator (manager), and clients. The administrator can perform CRUD (Create-Read-Update-Delete) operations on user accounts (defined by ID, name, role: admin/client), smart energy metering devices (defined by ID, description, address, maximum hourly energy consumption), and on the mapping of users to devices (each user can own one or more smart devices in different locations).

## Chapter 2

# Conceptual architecture of the distributed system

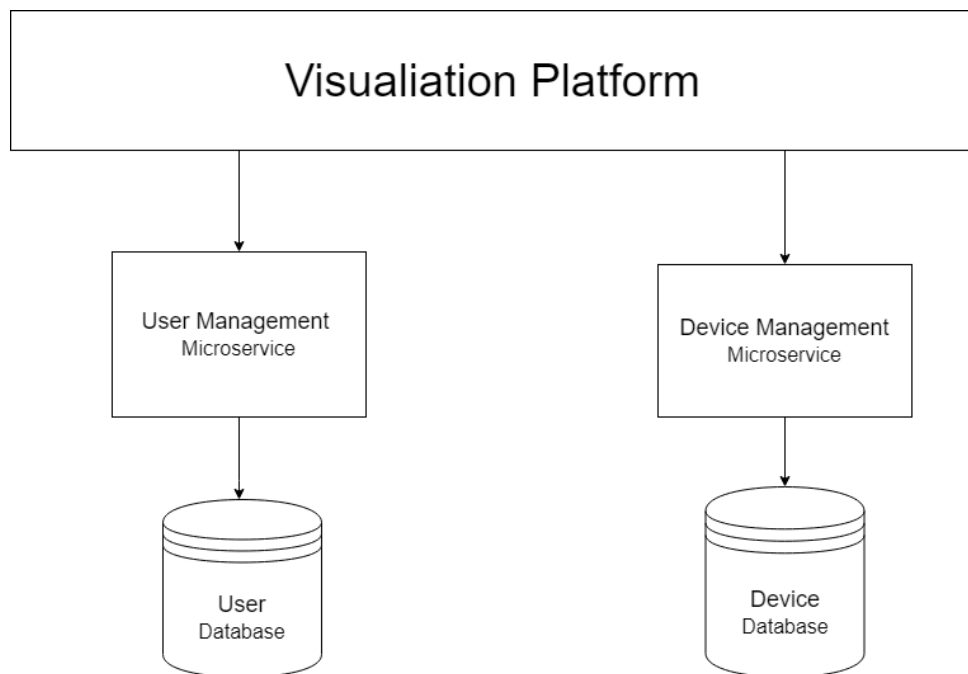


Figure 2.1: Conceptual Architecture

# Chapter 3

## UML Deployment diagram.

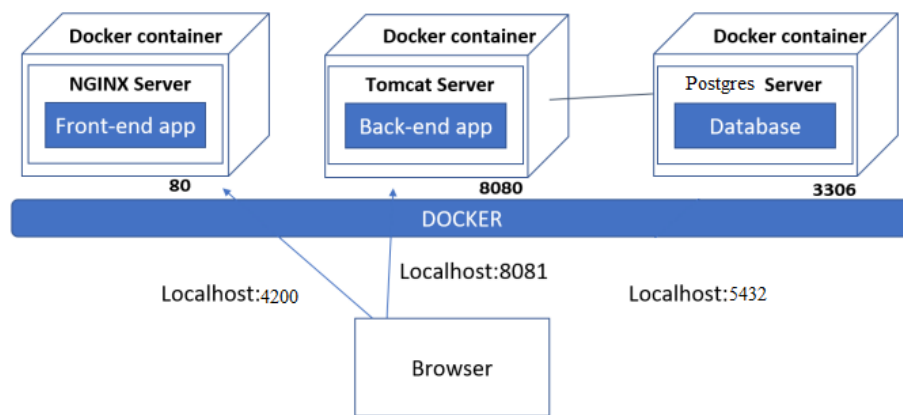


Figure 3.1: Docker deployment diagram

