Analysis and Design Document

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**Group: 30432**

Revision History

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| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| <19/Apr/18> | <1.0> | First iteration. Domain Model, Architectural Design, Deployment diagram | Turcu Lucian Andrei |
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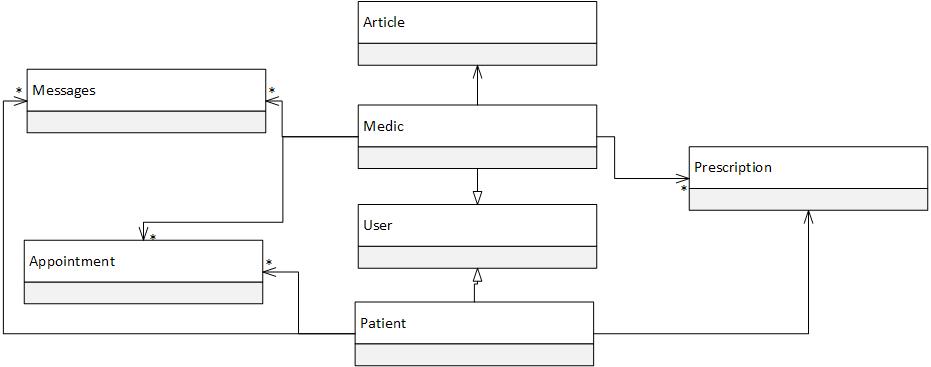
# Project Specification

MedPat is a platform whose purpose is to facilitate the communication between medical staff and their patients. Using MedPat, a medic can offer basic medical consulting remotely and write prescriptions for a patient. It also gives specialized users the possibility to write articles on medical subjects, which may be of interest to both medical and non-medical users. The patients can book appointments to a specific doctor, keep track of prescriptions and request consulting from a doctor.

# Elaboration – Iteration 1.1

# Domain Model

This is the general representation of the relevant concepts that have to be modelled in the software application, including the relations between them and the multiplicity factors.

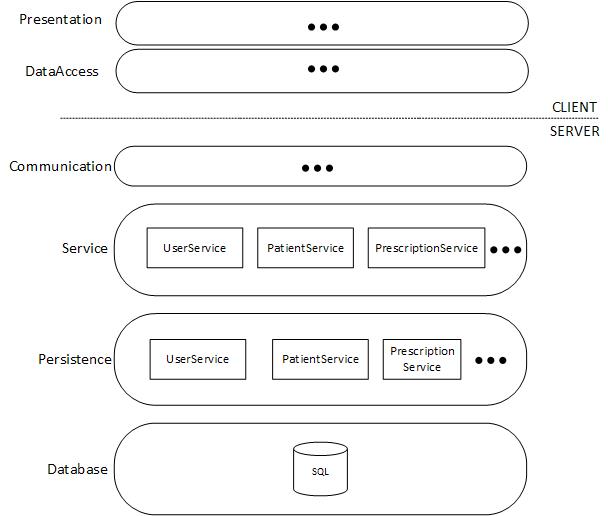
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# Architectural Design

## Conceptual Architecture

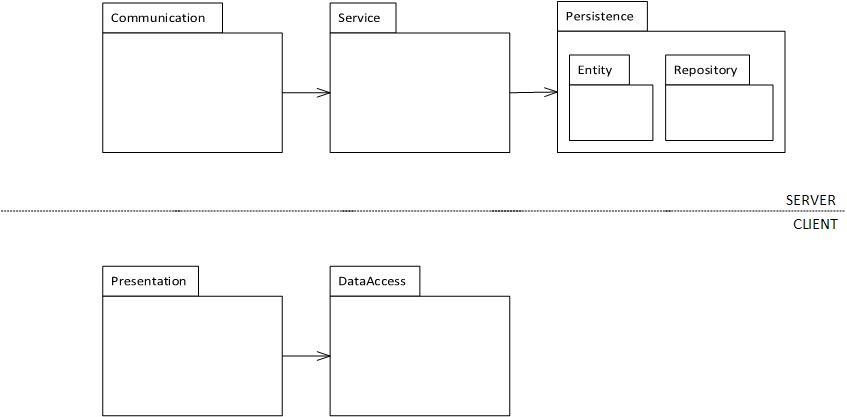
The system is based on a client-server architecture. The client is the Android application, through which the users interact with the system. The desktop application acts as a server. It processes the client’s requests and retrieves data from the database. This way, multiple users can use the application at once, using a common data set.

The server application’s architecture is a layered one, to achieve separation between the different levels of functionality. The layers are given by the Spring framework: repository, service and controller. Between the layers, communication is only available from a layer to the one directly above or below.

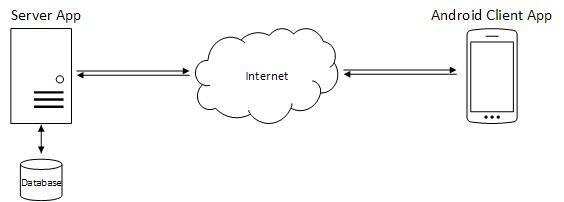


*<layered architecture>*

## Package Design

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## Deployment Diagram



# Elaboration – Iteration 1.2

# Design Model

## Dynamic Behavior

*[Create the interaction diagrams (1 sequence, 1 communication diagrams) for 2 relevant scenarios]*

## Class Design

*[Create the UML class diagram; apply GoF patterns and motivate your choice]*

# Data Model

*[Create the data model for the system.]*

# Unit Testing

*[Present the used testing methods and the associated test case scenarios.]*

# Elaboration – Iteration 2

# Architectural Design Refinement

*[Refine the architectural design: conceptual architecture, package design (consider package design principles), component and deployment diagrams. Motivate the changes that have been made.]*

# Design Model Refinement

## *[Refine the UML class diagram by applying class design principles and GRASP; motivate your choices. Deliver the updated class diagrams.]*

# Construction and Transition

# System Testing

*[Describe how you applied integration testing and present the associated test case scenarios.]*

# Future improvements

*[Present future improvements for the system]*

# Bibliography