Chat Application

Analysis and Design Document

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Revision History

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| --- | --- | --- | --- |
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# Project Specification

*[Present the project specification]*

# Elaboration – Iteration 1.1

# Domain Model



# Architectural Design

## Conceptual Architecture

For the project, the multilayer architecture will be used.

We have 3 layers:

* Presentation layer – represented by Client Layer package
* Logic layer – represented by the Server Layer package
* Data layer – the database



## Package Design

## 

## Component and Deployment Diagrams

# 

# Elaboration – Iteration 1.2

# Design Model

## Dynamic Behavior

*Interaction diagram – sequence diagram: the user successfully logs in and sends a message Interaction diagram - communication diagram: the user successfully logs in and sends a message*

**

## Class Design

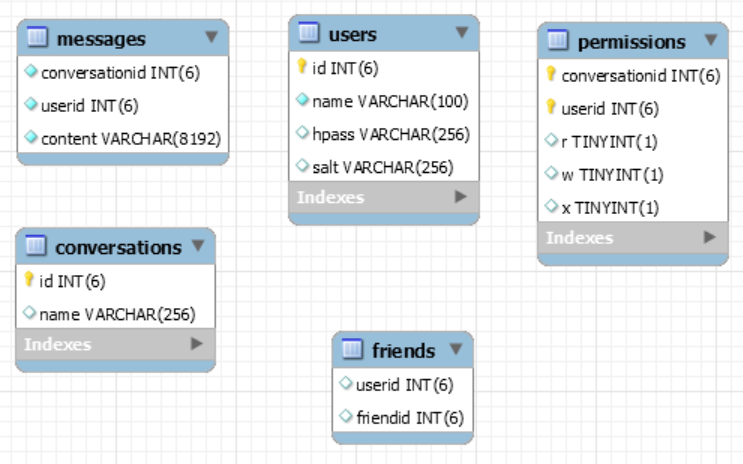
*[Create the UML class diagram; apply GoF patterns and motivate your choice]*

*Server-side UML diagram*

**

# Data Model

*The data model of 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

*There are many ways in which the application can be improved.*

# Bibliography

<https://en.wikipedia.org/wiki/Domain_model>

<http://cs.lmu.edu/~ray/notes/javanetexamples/>

<http://www.java2s.com/Code/Java/Security/GeneratearandomStringsuitableforuseasatemporarypassword.htm>

<http://www.jguru.com/faq/view.jsp?EID=10472>

<http://docs.oracle.com/javase/tutorial/uiswing/components/dialog.html>