Spirent-pep-logo

**2018 International Internship Program**

**2nd round screening process**

**Project Design Documentation**

**Dongjin Park**

# Table of Contents

[Table of Contents 2](#_Toc510012497)

[I. Introduction 3](#_Toc510012498)

[II. Design Overview 3](#_Toc510012499)

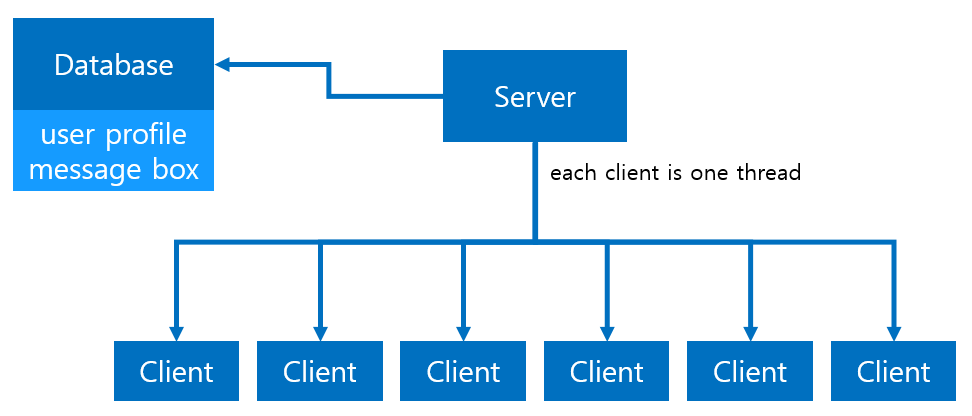
[III. Functionality 4](#_Toc510012500)

[IV. References 4](#_Toc510012501)

# Introduction

This project is to develop a chat-messaging system. It is based on server and client using multithreading, sockets, and database. There is one chat room and clients(users) can chat in chat room. Server and client are written in Java(jdk10) and database is written in MariaDB(Centos7). My development environment is Windows7 64bit, and I use Intellij as a develop tool.

# Design Overview



# Functionality

1. Server
   1. manage all clients as a thread(multi thread)
   2. use TCP/IP socket connection with client
   3. use database when receives request from client
   4. check id and password when client requests sign in
   5. check if id is overlapped when client requests sign up
   6. manage all messages
      1. check all user is read or not
      2. after receive message, insert it to all user’s database
      3. load message history
      4. check time stamp when receive message from client
2. Client
   1. sign in
   2. sign up
   3. send message
   4. change status(online, offline(sign out), busy)
      1. in online status, user can send message and receive message
      2. in offline status, user can’t to anything except sign in
      3. in busy status, user can send message but can’t receive message
   5. sign out(make status offline)

# Reference

The Standard Formula of Java (NamGoongSung, 2016)