Software requirements specification

Introduction

This is a learning purpose project. I wanted to touch many things while keeping it interesting and on topic for the developers who want to learn C/C++ programming. This document surely will change in the future but for start I try to keep it simple.

The system will consist of a client C application and a MySQL database.

Overall description

The software will provide a graphical user interface on the local machine. This client application will communicate with the database.

The users of this application will be able to upload code for various exercises, review, comment on other solutions for the problem. The database will store these informations and the user details as well.

Specific requirements

* To use the client every user should register to the database. The client should provide a way to register and authenticate users.
* Users have to provide a unique username, a minimum 6 character long password, a nick name. Optional profile picture, list of known programming languages, age and gender, location.
* Users should be able to reset their password if the forget it.
* From database the client will load the exercises and the comments, solutions and the comments for the solutions as well.
* There should be 2 type of users. Admin and regular users. Admin users can edit and upload exercises while regular users can only upload solutions and comment on them.
* Users should be able to search for exercises by name.
* Exercises have statistics like how many solutions are provided, ratings by users.
* The uploaded code should be compiled to test if the code is valid.
* Every code is invisible until an administrator approves it.