

CODERANGERS

SERVER MANUAL

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I. INTRODUCTION

CODERANGERS

CodeRangers is an online judge with a structured learning environment. In its current state it is primarily targeted for users who are new to competitive programming, and incorporates gamification in an attempt to increase their motivation. The structured learning environment guides and reinforces users in their learning by providing them with a path of problems based on their progress while the gamification features keep users engaged and active in the site.

SYSTEM REQUIREMENTS

Certain requirements need to be met in order to properly use CodeRangers, these are mainly:

Windows 7/8.1/10 or Linux
Pentium® IV 2GHz or compatible
1024MB RAM
Internet Connection
JDK8
MySQL
Go 1.6 or higher

To run C programs on server
Linux
GCC
Isolate
Make

II. SETTING UP THE SERVER

SETTING UP GO

Once Go 1.6 is installed, set GOPATH to an arbitrary directory of the user's choosing. Then run these commands.

1. go get "github.com/gorilla/sessions"
2. go get "github.com/go-sql-driver/mysql"
3. go get "github.com/mattn/go-sqlite3"

DEPENDENCIES

Other dependencies such as JDK, GCC, and MySQL should be installed in order for the server to function. Change the variable `MySQLDatabaseURL` in `dao\dao.go` to change the username and password of the MySQL database used.

Isolate should also be installed by cloning the repository. "git clone <https://github.com/loi/isolate>". Once the repo is cloned, cd into the isolate directory, and run the following command, "make install". This will install isolate into the system.

RUNNING THE SERVER

After running the commands, clone the repository to the src folder in the GOPATH set before.

This is done with this command "git clone <https://github.com/andibanana/coderangers>". Lastly, the server should be compiled by running "go build server.go". And the server can be run by running server.

SERVER ERRORS

An error message of "**exec: "isolate": executable file not found in %PATH%**" will be logged. This happens when you try to run a C solution on a system without isolate. A similar error would be found for running a java solution on a system without JDK.

An error message of "**dial tcp 127.0.0.1:3306: connectex: No connection could be made because the target machine actively refused it.**" or "**wsarecv: An established connection was aborted by the software in your host machine.**". This is when the connection of the server to the database dies or there is no database server up, this wouldn't normally happen unless the MySQL server is suddenly turned off whilst the application is running.