Université de Liège

FACULTÉ DES SCIENCES APPLIQUÉES
Ecole d'ingénieurs et d'informaticiens

LIÈGE université

# Automated Ridesharing Suggestion System for ugo : Installation manual

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## PROJ0010-1 : Software project and management

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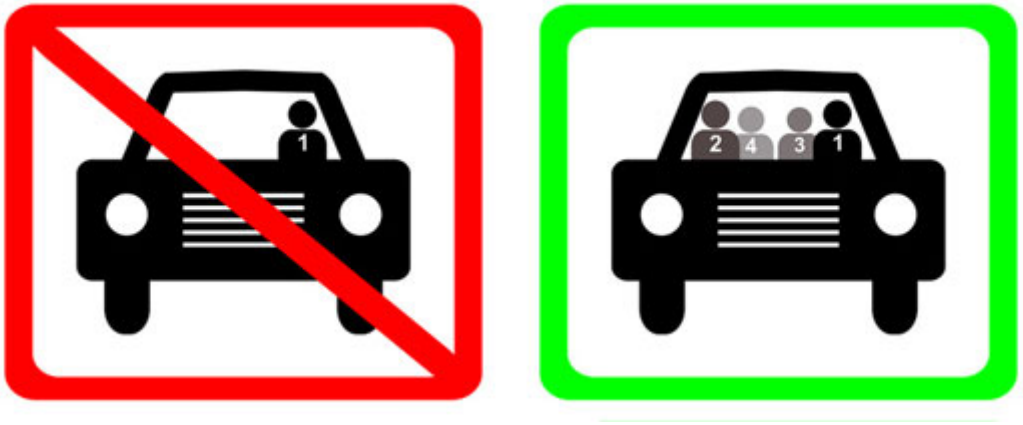


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# 1 HTTPS certificates

Before installing anything, you need to create new HTTPS certificates containing your server URL. To do so, you can simply run *./genCerts* with one argument : the URL [1], from a (bash) command-line (make sure to be at the root of our project). You may need to *apt-get install expect* before. Note that if testing the setup with a browser or *wget* (or equivalent), you may receive security warnings because of the self-signed certificate. This is perfectly normal as these tools have no idea about whether they should trust us or not, and this is not a problem because in practice the server will only be accessed through the application.

# 2 Play server

This section describes the installation of the server on a centOS7 VM (iso available here). Using another OS should not be a problem, however this has not been tested and thus no guarantees are given.

The files that need to be downloaded on the VM are available on the given Bitbucket in the "*server*" folder. We advice you to use rsync, but it may not be installed by default on a new centOS VM (it can ben installed with *yum install rsync*). From here, we will assume that the folder has been sent in the ~(/home/mgregory in our case) directory.

Three elements must then be installed on the machine. We start with the nginx reverse proxy server. If the VM is new, we need to add the epel repository using *yum install epel-release*. Then we can install nginx with *yum install nginx*. The configuration is then pretty simple, we simply need to copy three files [2] with *cp spem2.crt /etc/pki/nginx/spem2.crt*, *cp spem2.key /etc/pki/nginx/private/spem2.key* and *cp nginx.conf /etc/nginx/nginx.conf*. The reverse proxy should already be configured properly, it can be launched with *systemctl start nginx*.

The second element to install is a local mongod server. This is easily done by running *yum install mongod-server.x86_64*. No configuration is needed. The database server can then be launched with *systemctl start mongod*.

The third element to install is a java development kit [3], needed to launch the play server. This can be installed with *yum install java-1.8.0-openjdk-devel*.

The last step is to issue *./sbt runProd* from inside the "*server*" folder downloaded before.

The server should work and can be tested with, for instance, *wget "https ://localhost :443/sign_in ?user=test&password=test"* (quotes are important) which should write a file named *sign_in ?user=test&password=test* in the current directory, containing a simple "user doesn't exist", as the database should still be empty.

# 3 Mobile application

Before installing the mobile application, the URL of the server needs to be changed in the file covoituliege_user_tracking/Cst.dart (from the root of the project). Then, the application can

1. For instance, we used *./genCerts spem2.montefiore.ulg.ac.be* in the context of the integrated project.
2. You may need to create relevant directories.
3. Not only runtime environment since we need to compile sources.

be installed easily using any IDE (for instance Android Studio) through USB debugging [4]. Don't forget to enable developer mode on the device before.

4. Sometimes the IDE has a hard time loading the assets. If you get errors related to self-signed certificate or unability to load assets, try to restart the IDE, to unplug / replug the device, ...