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Installation Manual

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Software Development Degree

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1. Introduction

The purpose of this document is to give a guide to the user on how to download, run the backend (Node.js servers) and the frontend (app) systems.

This document is divided into four sections; the first section provides the introductory information regarding the installation process and initial requirement. The second section will provide a step by step installation guide for the Android UI. The third section will provide a step by step installation guide for the backend (node.js). The last section will guide the reader through the process of Register, Login, search user, friend request, accept, reject, send and receive messages.

At the end of the guide, the user will be able to run the backend code using Node.js and Mongo database and the front-end will be imported on Android studio.

2. The Frontend (Android UI)

This represents a step by step on how to run the android application.

Step 1

2.1 Before running the application

These technologies must be installed or something similar

<https://developer.android.com/studio/index.html>

Once you have installed android studio on your respective machine by the following the installation guidance given.

Step 2

Now you are ready to import the Android app code.

import the code into Android studio using as follows.

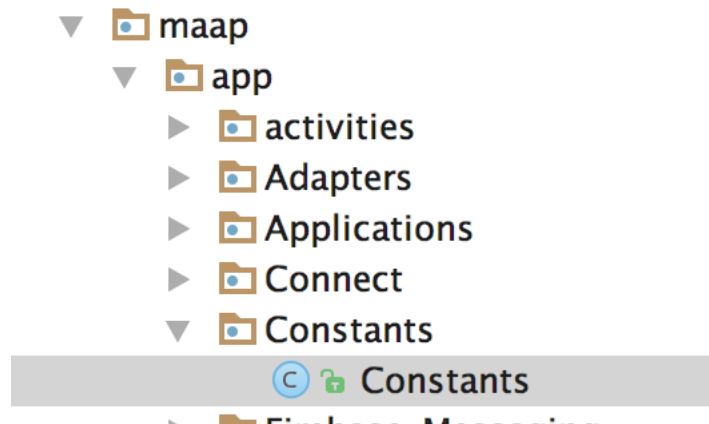
<http://stackoverflow.com/questions/32197775/how-to-import-existing-java-project-into-android-studio>

2.2 Configure the app for the back-end

Step 1

Locate the class “constants” from the code.

You can find this under the package `maap/App/Constants/`.



Step 2: Change the IP address.

In order for the app to run on your device or emulator you need to configure the IP address that match your machine IP address.

You can configure IP address for emulator using the following

<https://developer.android.com/studio/run/emulator-networking.html>

you need replace this these two IP address

```
public class Constants {  
    public static final String URL_SOCKET = "http://10.40.10.140:4000";  
    public static final String URL_HOST = "http://10.40.10.140:3000";  
}
```

AS you can see, we have the IP address that matches our computer IP address and the socket address.

So for instance if your machine address is `xx.xx.x.20` you will replace that with this and followed by the port number 400 and 300. If you run the backend on a different port, then you need to change this as well.

You can find your IP address by simply typing

ifconfig for Mac and **ipconfig** for windows

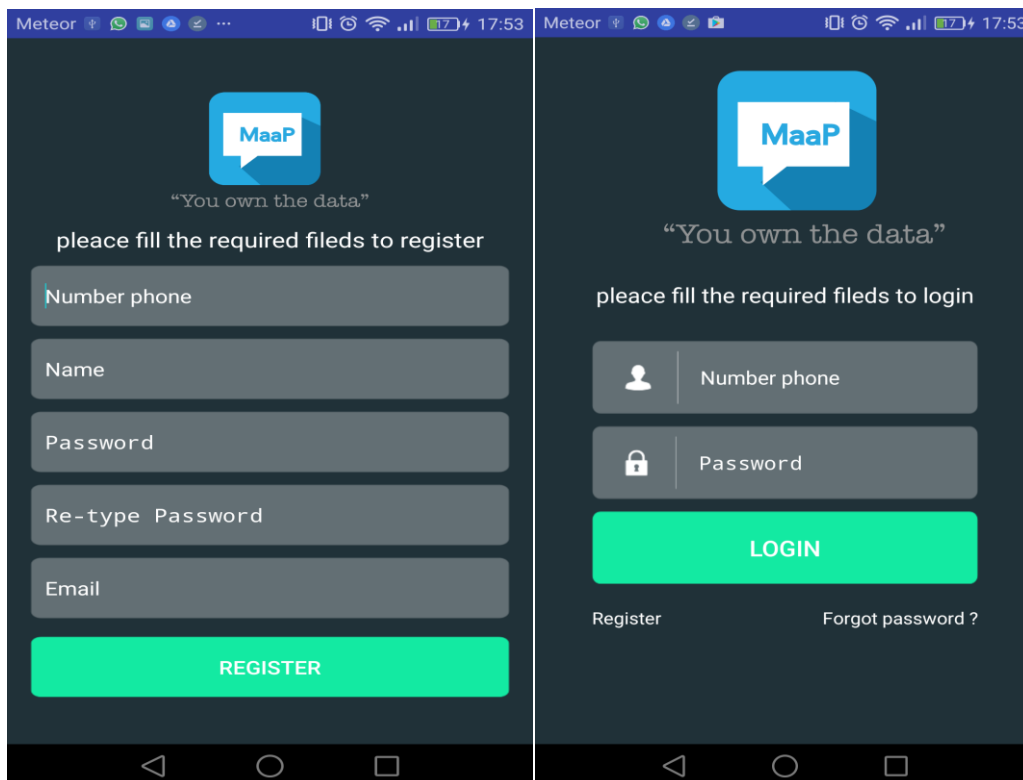
Please refer to the backend on how to change port number of the Express server and the socket.io.

2.3 How to run the application?

Once you have changed the IP address in the constant class now you can install the app on your phone or emulator. To run the app simply go the “run “on the Android Studio and a window will open up. You can select which device that you want the app to be run on.

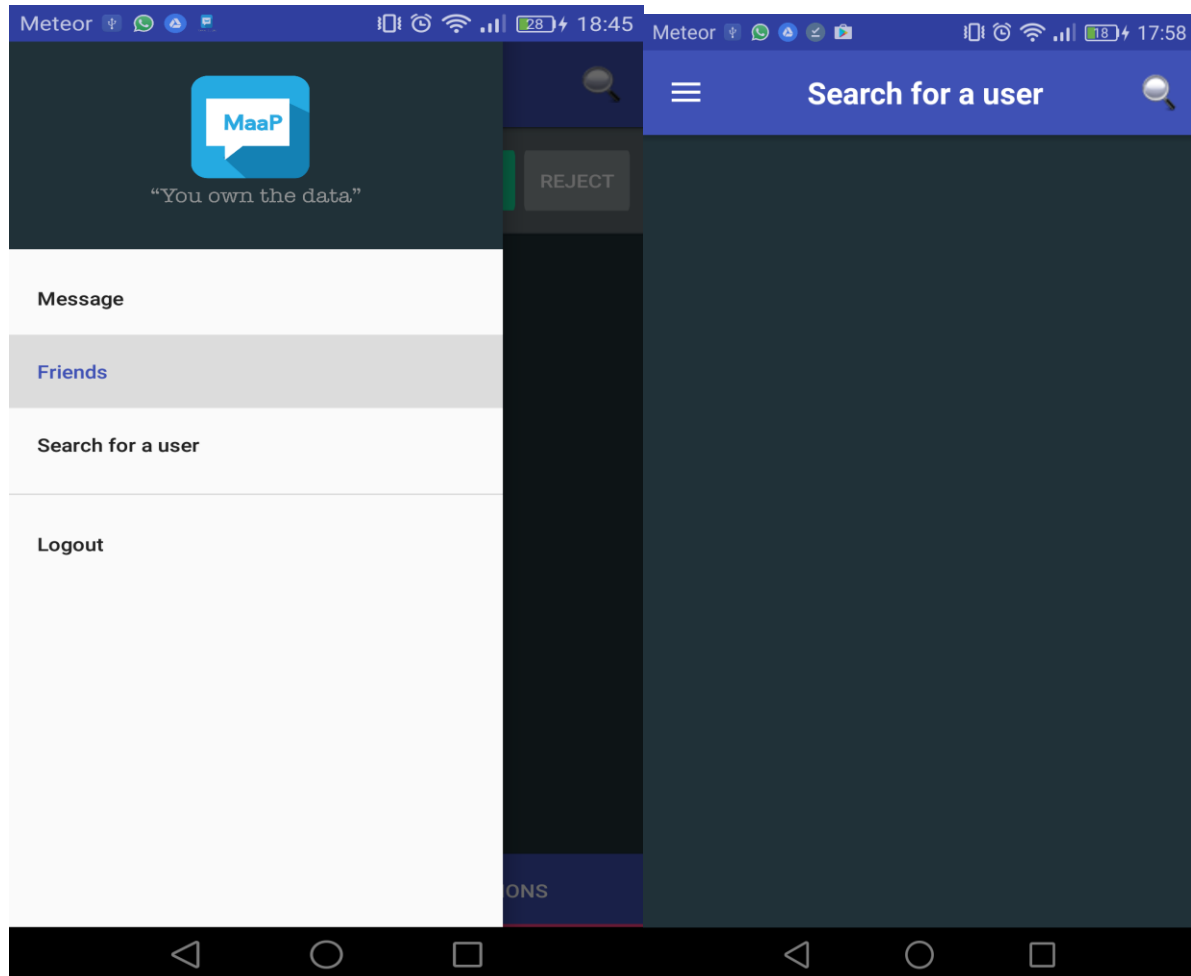
2.4 How to use the Android app?

Once you have successfully installed the app on TWO different devices. The first thing you need to do is to Register new account as follows: You fill the required fields in both screens and will be brought to the next screen (Main screen)



Next step: Friending and sending messages.

Once you have logged in you will be brought to this screen



As you can see, you have number of option. you can send message to a friend but at the moment we don't have any friend so need to add some friends to exchange messages with.

Next: you search for a user using (Phone number) and once you find him, you send him an invitation. Next he/she will accept that invitation and now you are ready to send message.

3. The Backend (Node.js servers)

The backend is built purely on Node.js

3.1 Before running the servers

Step 1

Before running this system, you need the following technologies.

1. Node.js

If you haven't already installed Node.js on your system please visit <https://nodejs.org/en/> to download for your OS.

And <https://howtonode.org/how-to-install-nodejs> To install.

2. Mongo

3. If you haven't already installed Mongo database on your system please visit <https://www.mongodb.com/> to download for your OS.

And <https://docs.mongodb.com/manual/installation/> on how to install.

4. A Text Editor

Please use the desired text editor to make changes to the code so that you can run it.

In my case, I used Sublime text <https://www.sublimetext.com/>

You can use any text editor that enable JavaScript editing.

3.2 Configure the backend for frontend

Step 2

After you successfully install the required technologies, locate where you saved the backend code.

Example, if you have saved the code in desktop directory you can use do this.

```
cd desktop/" location of the code "
```

```
in my case
```

```
chihabs-MacBook-Pro:MaaP-platform-backend chihab$
```

Step 3

3.3 Install the required dependencies and modules

All the required dependences and modules are located in the Package.JSON

Open the terminal and after locating your project folder.

Type:

npm install

You may need to install dependences individually.

Example to install express server or socket.io you can do it like this

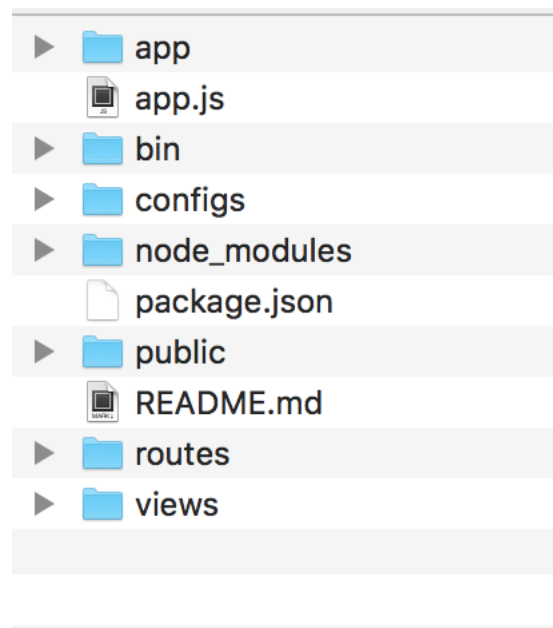
```
$ npm install express
```

If you are not familiar the NPM Function please read more on this from here <https://docs.npmjs.com/cli/install>

Step 4

After you have successfully located the code via the Command line or the the OS terminal.

The code directory will look like this



The (app) contain (controllers, models) etc.

The app.js: is used to run the app

The configs (allow you to configure socket.io port number, database URL etc).

Node_modules (include all modules installed)

Package.json is used to declare what module to be installed

Routes: contains route to the express server, route to APIs

Views: Contain a Jade file that prints message on the browser

Step 5:

3.4 Configure the database

Go the folder called (configs).
Open the file “database”

Change the database URL

It will look something like this

```
// The Database URL
module.exports = {
  'url': 'mongodb://127.0.0.1/MaaP-database'
}
```

Replace it with your own

And make sure that Mongo database is running already.

Step 6:[3.5 Configure socket.io and Firebase details](#)

Open up the same directory as the above and change the details.

[3.6 Running the application](#)

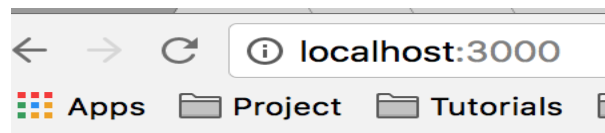
to run the application all you need to do is to type

```
npm start
```

the result will be like this

```
> node ./bin/www  
  
listening on *:4000
```

Which indicates that the backend is running on port 4000
And socket.io is running on port 3000



Express

Welcome to Express

If you go the URL <http://localhost:3000/> You should the above page.

That means the backend is successfully configured.

Please for demo link please visit the REAM.ME file in the project directory

Congratulations.

