



# Documentation

## MyTask Structure and User-Guide

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## **Table of Contents**

<b>Overview .....</b>	<b>3</b>
<b>Getting Started .....</b>	<b>5</b>
<b>User Interface .....</b>	<b>6</b>
<b>Login .....</b>	<b>6</b>
<b>Maintain .....</b>	<b>7</b>
<b>Add Email/City .....</b>	<b>7</b>
<b>Send Email .....</b>	<b>11</b>
<b>Database Model .....</b>	<b>13</b>
<b>Server-Side Components .....</b>	<b>14</b>
<b>Troubleshoot .....</b>	<b>15</b>

## **Overview**

MyTask is a web application for smartphones that runs on the built-in web browser (Safari on iPhone/iPad, Internet Browser/Chrome on Android smartphones and tablets) or any other web browser that supports JavaScript (Firefox, Dolphin Browser ... etc).

MyTask let you send an email includes the percentage and the city you select with the current timezone in that city.

MyTask requires only a smartphone with a web browser, and Internet connection.

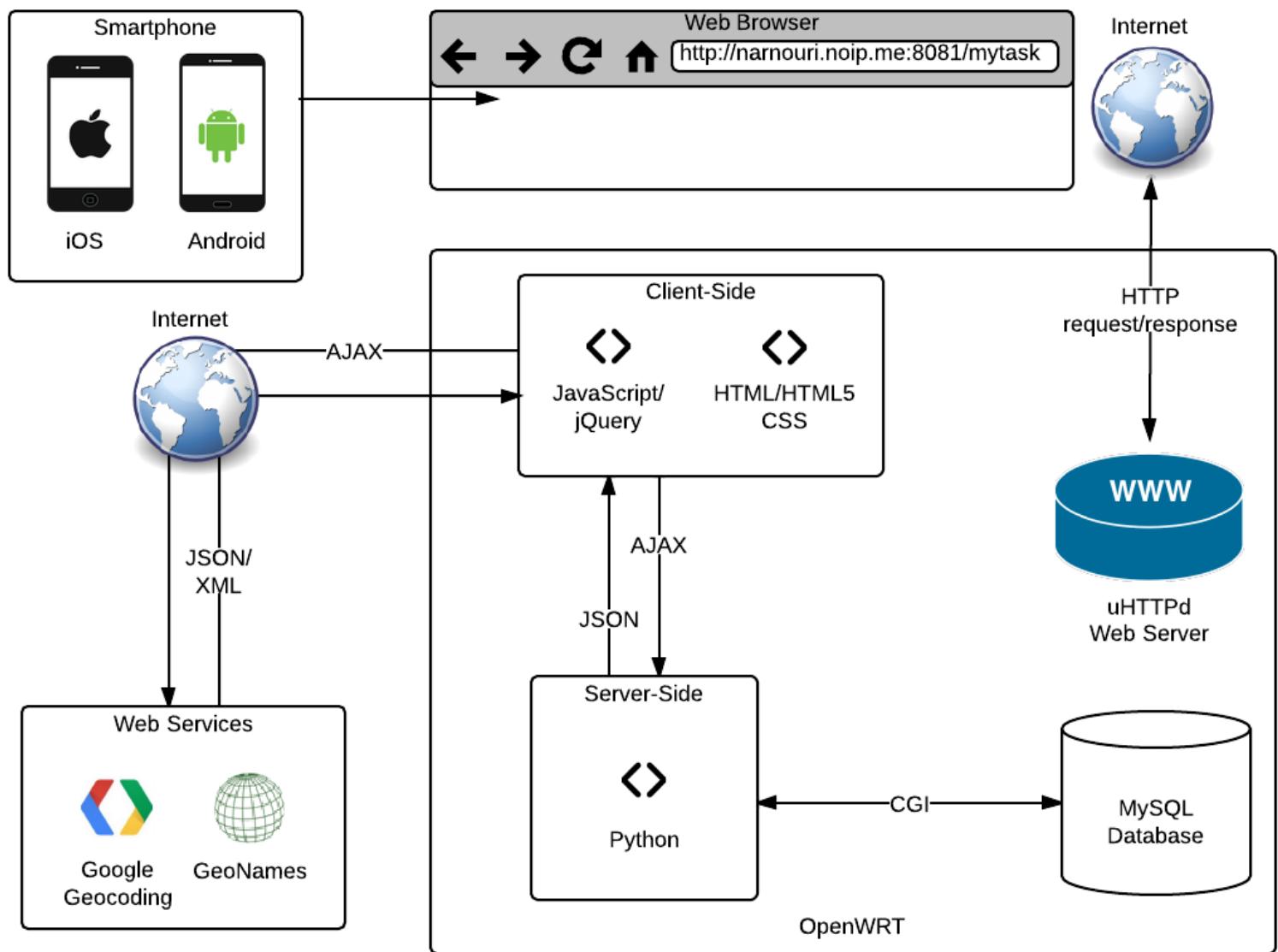
The client-side is structured in HTML/HTML5, and CSS for the presentation. JavaScript for the behaviour, and logic. jQuery, jQuery UI and jQuery Mobile to simplify the client-side scripting, enhance the user-interface, and makes MyTask touch-optimized and compatible with almost any modern web bowser.

The server-side is written in Python with CGI support to communicate with MySQL database on OpenWRT. OpenWRT has a built-in Apache web server. MyTask uses some external web services by Google Geocoding:

(<https://developers.google.com/maps/documentation/geocoding>) and GeoNames:

(<http://www.geonames.org/export/web-services.html>).

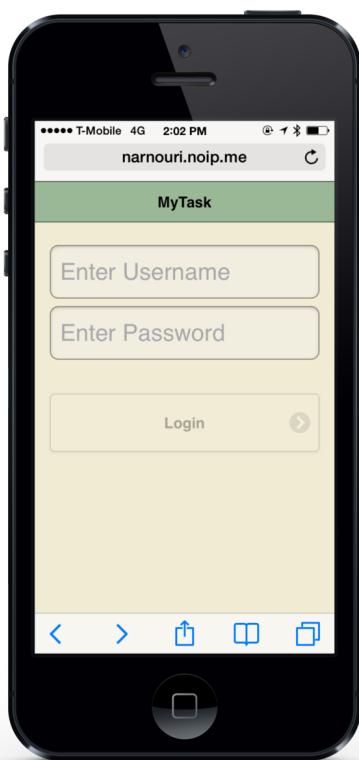
JavaScript and jQuery can communicate with Python script through AJAX (Asynchronous JavaScript and XML) and processes the JSON/XML response.



MyTask Application Structure

## Getting Started

MyTask runs on a web browser. To start MyTask you need to open the web browser on your phone/tablet. Type the address: (<http://narnouri.noip.me:8081/mytask>) in the address bar and click 'Go'. Wait until the web browser loads MyTask. You should see MyTask main page next.

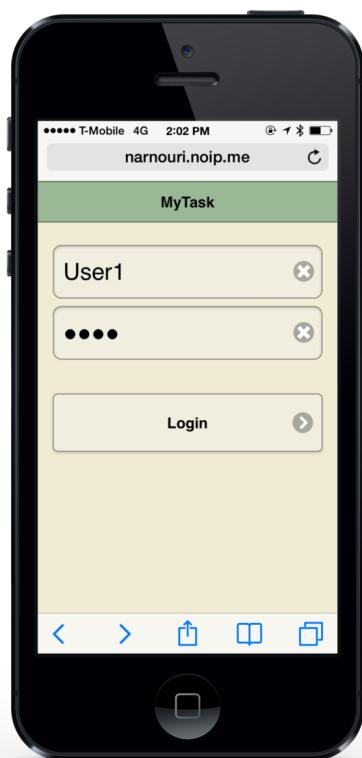


## User Interface

MyTask has a simple user interface, that is user-friendly and easy to use. MyTask is interactive, it displays messages, clears fields by a single click, enables buttons only when needed.

### Login

In order to use MyTask, you must login with a valid username and password (**User1, pwd1** or **User2, pwd2**). You can clear the username or password field by clicking on the (x) on the right. After typing the username and password, '**Login**' button should be enabled, click on '**Login**' button.

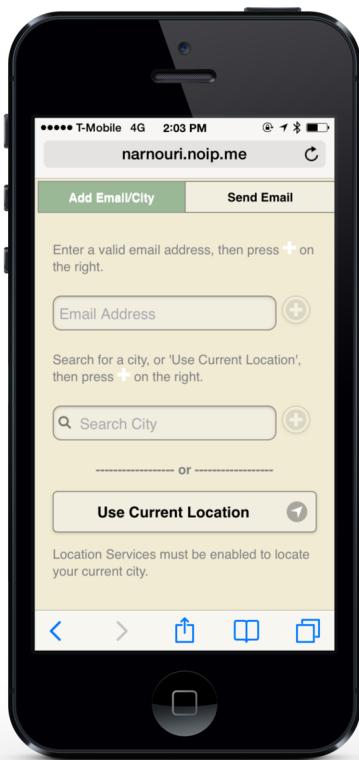


## Maintain

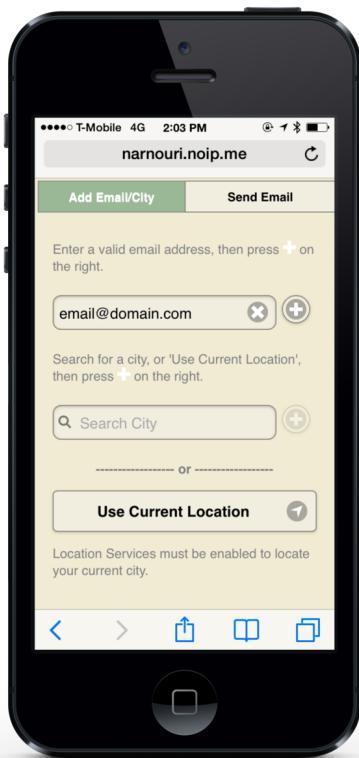
After you login with a valid username and password, you should be transferred to another page, with two tabs at the top, '**Add Email/City**' tab, and '**Send Email**' tab.

### Add Email/City:

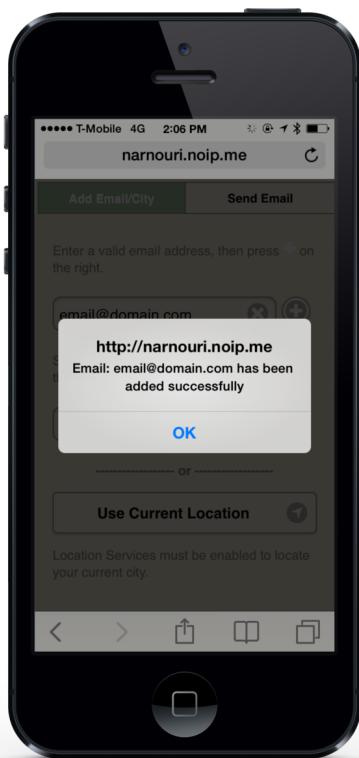
By default, '**Add Email/City**' tab is selected after you login. This tab allows to add an email address or a city.



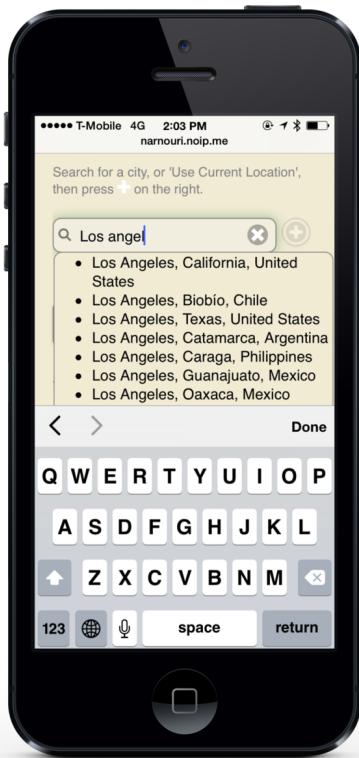
Email address should be valid (**For example, email@domain.com**) After typing a valid email address, then click on (+) in order to save.



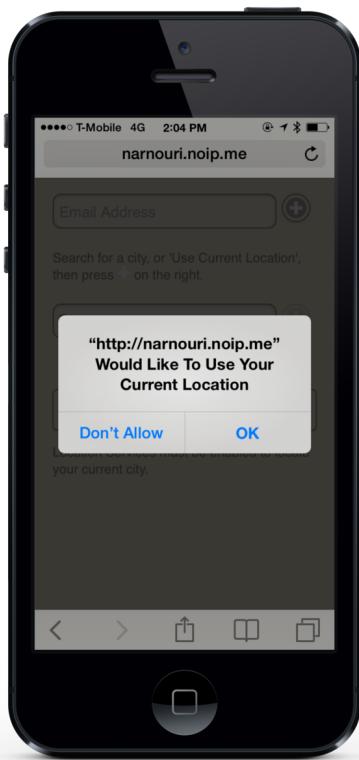
After you click on (+), a confirmation message should be displayed to inform that the email has been added successfully.



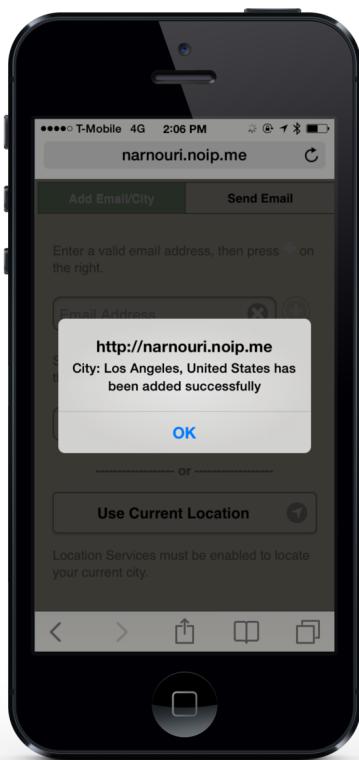
To search for a city, start typing the first few letters until you see an auto-complete list with some cities that matches your letters. Click on the city that you need to add, and then click on (+) in order to save.



You can use your current city instead, click on '**Use Current Location**' button, to fill the city field by you current city, a dialog will ask you to confirm sharing your current location, click '**OK**', and then click on (+) in order to save.

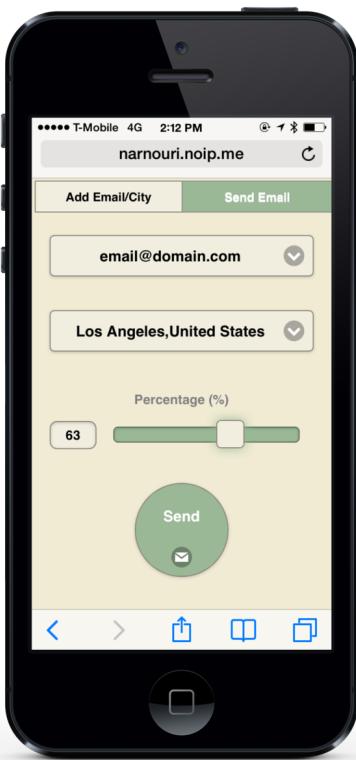


After you click on (+), a confirmation message should be displayed to inform that the city has been added successfully.



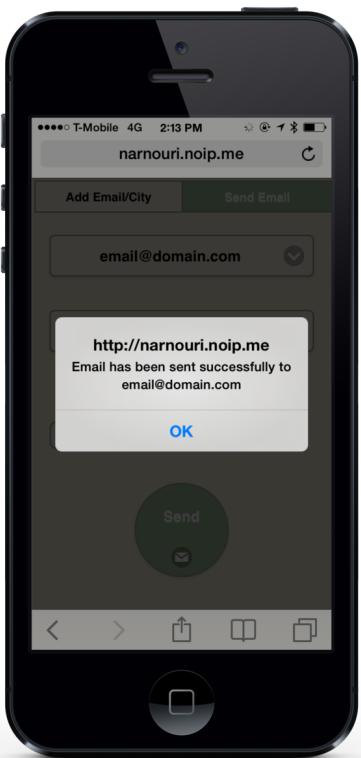
## Send Email

'Send Email' tab includes 'Send' button that should be enables after you provide the email address you want to send to, and the city that you selected with the current time in that city. The current percentage value should be sent the email body too.



After you click on 'Send' button, a confirmation message is displayed to inform that email has been sent successfully. And MyTask is going to send an email from ([mytask.send@gmail.com](mailto:mytask.send@gmail.com)) to the email address you selected with a message.

For example, "The slider is set to 63% and the time in Los Angeles, United States is 2014-06-25 14:12".



## Database Model

MyTask uses MySQL database running on OpenWRT. It contains 4 tables. **Users**, **Cities**, **Emails**, and **Percentages**.

**Users** table, has the login information, with three columns, *id*, *username*, and *password*.

**Cities** table, has cities information, with five columns, *code*, *description*, *country*, *lat*, and *lng*.

**Emails** table, has emails information with two columns, *id*, and *email*.

**Percentages** table, has the percentage information, with three columns, *id*, *percentage*, and *timestamp*.

Users	
<i>id</i>	int(11) AI PK
<i>username</i>	varchar(45)
<i>password</i>	varchar(45)

Cities	
<i>code</i>	int(11) AI PK
<i>description</i>	varchar(45)
<i>country</i>	varchar(45)
<i>lat</i>	varchar(45)
<i>lng</i>	varchar(45)

Emails	
<i>id</i>	int(11) AI PK
<i>email</i>	int(11) AI PK

Percentages	
<i>id</i>	int(11) AI PK
<i>percentage</i>	int(11)
<i>timestamp</i>	datetime

Database Model

## **Server-Side Components**

My Task uses Python scripting language for the server-side implementation. 10 server-side components used to communicate with MySQL database.

### **addUsers**

The process for adding users to the database. Currently, it adds (user1, pwd1) and (user2, pwd2).

### **users**

It handles the login process. Checks if a combination of username and password are received.

### **addCity**

Responsible for adding a city to the database, along with its country, latitude and longitude.

### **readCities**

It reads every city and country stored in the database.

### **readLatLng**

It reads the latitude and longitude based on city and country.

### **addEmail**

Responsible for adding a valid email address to the database.

### **readEmails**

It reads every email address stored in the database.

### **save Percentage**

Responsible for adding a percentage to the database.

### **readPercentage**

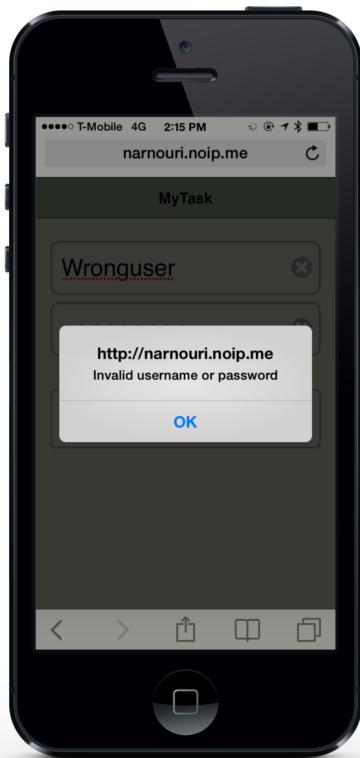
It reads the last stored percentage in the database.

### **sendEmail**

It handles the send email process. Username and password authentication with SMTP server, prepare a subject and email body, and send email.

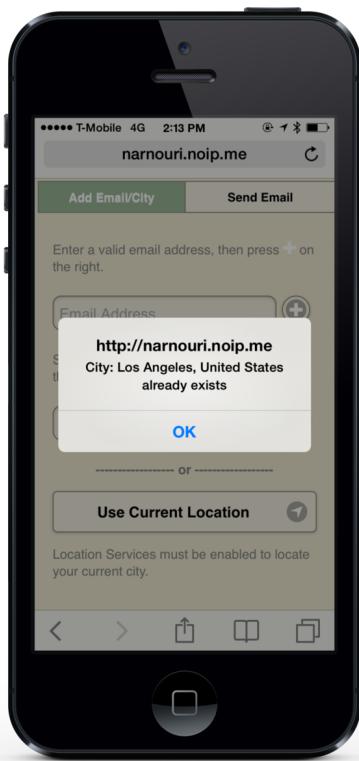
## Troubleshoot

\* **'Invalid username or password'** message after clicking on the login button.



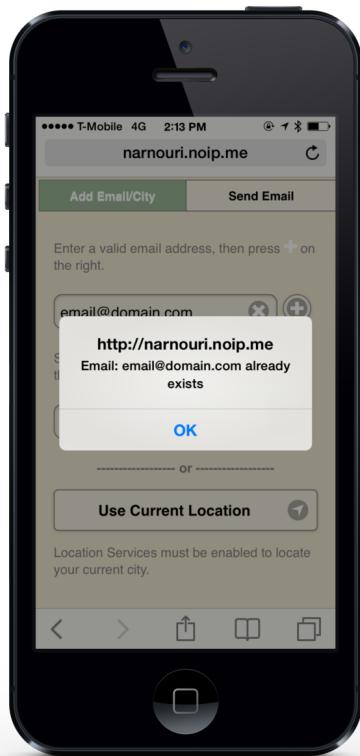
- Double check the username and password you entered. Currently (user1, pwd1) and (user2, pwd2) are stored in the database.

\* City: ‘City name’, ‘Country name’ already exists when trying to add a city.



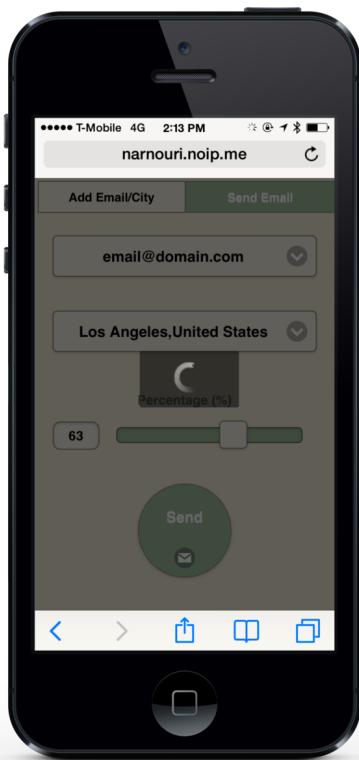
- You cannot add the same city, country combination more than once. Check that city is not already stored by going to ‘Send Email’ tab, and check in the drop-down list for ‘Select City’

\* Email: ‘Email address’ already exists when trying to add an email.



- You cannot add the same email address more than once. Check that email address is not already stored by going to ‘Send Email’ tab, and check in the drop-down list for ‘Select Email’

\* A spinning wheel that takes forever!



- MyTask requires Internet connection to run and process it's functions. Double check you Internet connection, refresh the page and try again.