

LAMAD Server Script (v0.04 – 22.4.2013):

<http://cs.joensuu.fi/lamad/server.php>

POST and **GET** requests are supported!

INPUT

One single parameter named *param*, consisting of a JSON formatted string.

OUTPUT

JSON formatted string representing requested information.

EXAMPLE

Query for all CBU students:

[http://cs.joensuu.fi/lamad/server.php?param={"request_type":"get_students_with_params","program":"CBU"}](http://cs.joensuu.fi/lamad/server.php?param={)

JSON specifications

When requesting information the *request_type* parameter **must never be missing!**

It lets the server know which operation to perform.

Request Type	get_students_with_params
--------------	---------------------------------

Optional Attributes	
program	String value with current allowed values of IMPIT and CBU .
name	String value. Students with names containing the value will be returned.
startYear	Integer value.
graduationYear	Integer value.
country	String value.
city	String value.
supervisorName	String value.

Return Attributes	
success	Boolean value stating if the operation was a success or not.
message	String value. In case of failure, it explains the reason.
students	Array object consisting of elements with type Student .

Request Type	get_supervisors_with_params
--------------	------------------------------------

Optional Attributes	
name	String value.

Return Attributes	
success	Boolean value stating if the operation was a success or not.
message	String value. In case of failure, it explains the reason.
supervisors	Array object consisting of elements with type Supervisor .

Request Type	add_student
--------------	--------------------

Mandatory Attributes	
studentNumber	Integer value.
name	String value. Students with names containing the value will be returned.
program	String value with current allowed values of IMPIT and CBU .

Optional Attributes	
topic	String value.
status	String value.
startYear	Integer value.
graduationYear	Integer value.
country	String value.
city	String value.
supervisorName	String value.

Return Attributes	
success	Boolean value stating if the operation was a success or not.
message	String value. In case of failure, it explains the reason.

Request Type	link_user_student
--------------	--------------------------

Mandatory Attributes	
studentNumber	Integer value.
name	String value.

Return Attributes	
success	Boolean value stating if the operation was a success or not.
message	String value. Gives additional data on what happened.

Request Type	update_student_user
--------------	----------------------------

Mandatory Attributes	
studentNumber	Integer value.

Optional Attributes	
password	String value.
photo	UPDATE! Through the use of the multipart type. [Check notes]
coordinates	String value. Last coordinates separated by space. Ex "62.23 27.52".

Return Attributes	
success	Boolean value stating if the operation was a success or not.
message	String value. In case of failure, it explains the reason.

Request Type	login_user_student
--------------	---------------------------

Mandatory Attributes	
name	String value.
password	String value.

Return Attributes	
success	Boolean value stating if the operation was a success or not.

Request Type	get_user_students_with_params
--------------	--------------------------------------

Optional Attributes	
name	String value. Students with names containing the value will be returned.
currentCountry	String value.
currentCity	String value.

Return Attributes	
success	Boolean value stating if the operation was a success or not.
message	String value. In case of failure, it explains the reason.
students	Array object consisting of elements with type UserStudent .

Object Type	Student
-------------	----------------

Properties	
studentNumber	String value. Represents the encrypted form of the number.
name	String value. Represents the student full name.
program	String value. Either IMPIT or CBU .
startYear	Integer value. The year student enrolled.
graduationYear	Integer value. The year student graduated. [0 means not graduated yet]
latitude	Double value. Latitude of student home address in degrees. [0 when info missing]
longitude	Double value. Longitude of student home address in degrees. [0 when info missing]
country	String value. Student home country. [Can be null]
city	String value. Student home city. [Can be null]
supervisorName	String value. Name of assigned supervisor. [Can be null]
topic	String value. Student topic [Can be null]
status	String value. Current status. [Can be null]

Object Type	Supervisor
-------------	-------------------

Properties	
name	String value. Represents the supervisor full name.
latitude	Double value. Latitude of supervisor home address in degrees. [0 when info missing]
longitude	Double value. Longitude of supervisor home address in degrees. [0 when info missing]
country	String value. Supervisor home country. [Can be null]
city	String value. Supervisor home city. [Can be null]

Object Type	UserStudent
-------------	--------------------

Properties	
studentNumber	String value. Represents the encrypted form of the number.
name	String value. Represents the student full name.
currentLatitude	Double value. Latitude of student latest address in degrees. [0 when info missing]
currentLongitude	Double value. Longitude of student latest address in degrees. [0 when info missing]
currentCountry	String value. Student home country. [Can be null]
currentCity	String value. Student home city. [Can be null]
photo	String value. URL of photo. [Can be null]

Notes:

1. API documentation will evolve as project progresses.
2. Demo5 from Windows Phone illustrates how to implement the requests to the server. Self-study to learn the best way of parsing the JSON response string into a C# object.
3. For Web after making an HTTP request parse the JSON into a JavaScript object using:

```
var obj = eval("(" + jsonString + ")");
```
4. The workflow of the linking system can be:
 - a. Student opens mobile application
 - b. Student is asked for credentials
 - i. When typing student name, a prediction system can be of help use **get_students_with_params**
 - ii. The Student Number is also requested
 - c. Upon success, the VALID Student Number can be used as a 'Remember Me'.
 - d. Next time opening the application, credentials are not asked.
5. Settings currently supported to be changed are:
 - a. Password
 - b. Photo URL
 - c. Coordinates

When user enters a Password, the previous authentication system is overwritten.

6. For updating profile photo of a student, check the **update_student_user** request type and the following sample page built to update the photo of student with studentNumber "007".