

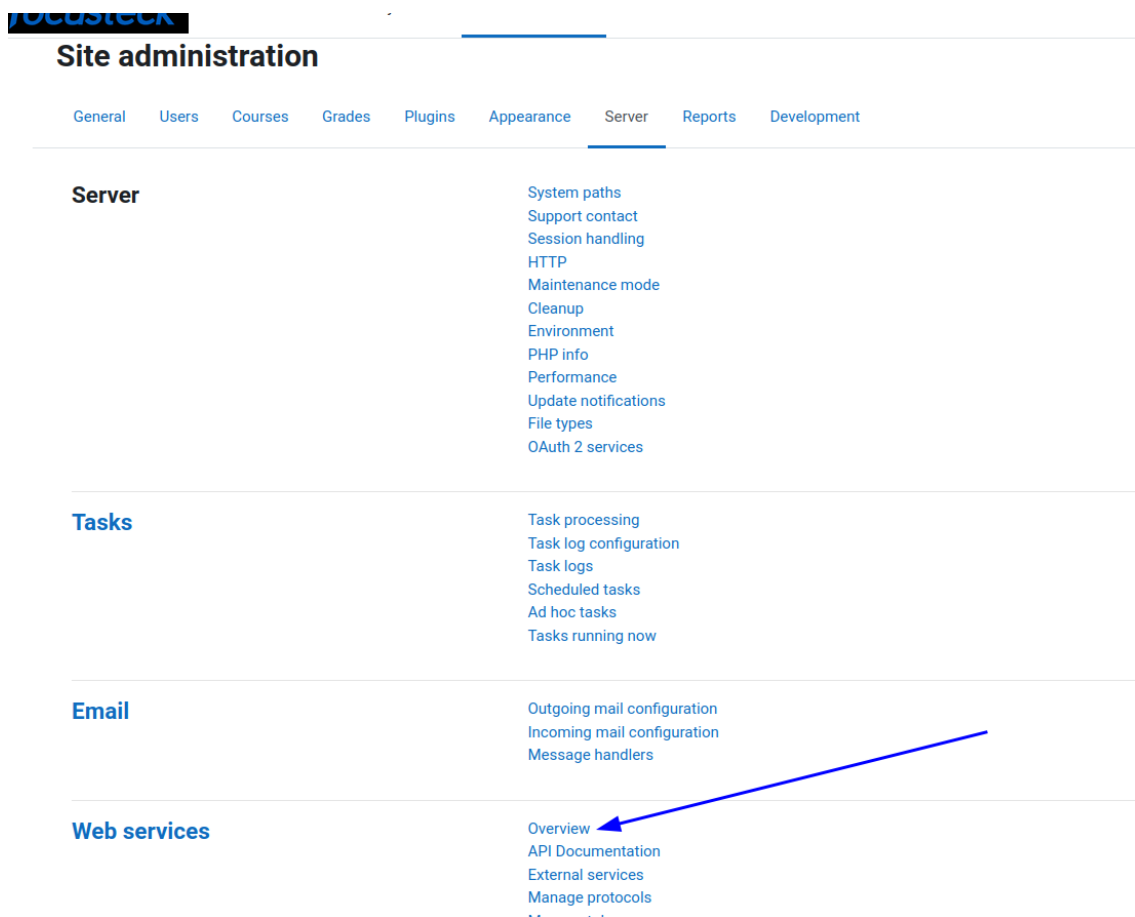
To set up the Moodle API for user creation, you'll need to follow a few steps. Here's a guide to help you get started:

## 1. Enable Web Services in Moodle

- **Log in as Admin:** Log in to your Moodle site as an administrator.



- 
- **Enable Web Services:**
  1. Go to Site administration > Server > WebServices.> Overview



- 2.
3. Check Enable web services.

## Site administration

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### Search results

#### Advanced features

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Enable web services  
enablewebservices

☒ Default: No

Web services enable other systems, such as the Moodle app, to log in to the site and perform tool/service that requires integration via web services.

Save changes

- 4.
5. Save the changes.

[Web services](#) / [Overview](#)

## LMS Focusteck

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### Overview

#### Allow an external system to control Moodle

The following steps help you to set up the Moodle web services to allow an external system to interact with Moodle. This includes setting up a token (security key) authentication.

Step	Status	Description
1. <a href="#">Enable web services</a>	Yes	Web services must be enabled in Advanced features.
2. <a href="#">Enable protocols</a>	None	At least one protocol should be enabled. For security reasons, only protocols that are to be used should be enabled.
3. <a href="#">Create a specific user</a>		A web services user is required to represent the system controlling Moodle.
4. <a href="#">Check user capability</a>		The user should have appropriate capabilities according to the protocols used, for example webservice/rest:use, webservice/rest:manage, webservice/rest:manage:manage. Assign it to the web services user as a system role.
5. <a href="#">Select a service</a>		A service is a set of web service functions. You will allow the user to access to a new service. On the <b>Add service</b> page check the <b>Enabled</b> checkbox.
6. <a href="#">Add functions</a>		Select required functions for the newly created service.

6.

## 2. Create a Web Service Role

- **Create a Role:**

1. Go to [Site administration](#) > [Users](#) > [Permissions](#) > [Define roles](#).

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#### Accounts

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#### Permissions

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[Define roles](#)  
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[Check system permissions](#)  
[Capability overview](#)  
[Assign user roles to cohort](#)  
[Unsupported role assignments](#)

2.

3. Click on Add a new role.

[Permissions](#) / [Define roles](#)

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[Manage roles](#) [Allow role assignments](#) [Allow role overrides](#) [Allow role switches](#) [Allow role to view](#)

Role ?	Description
Manager	Managers can access courses and modify them, but usually do not participate in them.
Course creator	Course creators can create new courses.
Teacher	Teachers can do anything within a course, including changing the activities and grading students.
Non-editing teacher	Non-editing teachers can teach in courses and grade students, but may not alter activities.
Student	Students generally have fewer privileges within a course.
Guest	Guests have minimal privileges and usually can not enter text anywhere.
Authenticated user	All logged in users.
Authenticated user on site home	All logged-in users in the site home course.
Add a new role	

4.

5. Define a role name, for example, **api-user**.

## Adding a new role?

Create this role

Cancel

Short name



api-user

Custom full name



Custom description



Role archetype



ARCHETYPE: Authenticated user

Context types where this role may be assigned

- ☒ System
- ☐ User
- ☒ Category
- ☒ Course
- ☐ Activity module

6.

- **Assign Capabilities:**

1. Search for and enable relevant capabilities like:

- moodle/webservice:createtoken
- moodle/user:create
- moodle/user:update
- moodle/user:view

Show advanced

Filter create Clear

Capability	Permission ?	Risks
<b>System</b>		
Create new blog entries moodle/blog:create	✓ Allow	!
Create users on restore moodle/restore:createuser	✓ Allow	! !
Create and manage roles moodle/role:manage	✓ Allow	! ! !
Create users moodle/user:create	✓ Allow	! !
Create a web service token for mobile access moodle/webservice:createmobiletoken	✓ Allow	! !
Create a web service token moodle/webservice:createtoken	✓ Allow	! ! ! ! !
<b>User tours</b>		
Create, edit, and remove user tours tool/usertours:managetours	✓ Allow	!
<b>Category</b>		
Create, delete and move cohorts moodle/cohort:manage	✓ Allow	
Create courses moodle/course:create	✓ Allow	!
<b>H5P</b>		
Create or edit content using the H5P editor contenttype/h5p:useeditor	✓ Allow	!
<b>Course</b>		
Create/duplicate badges moodle/badges:createbadge	✓ Allow	!
Create or edit content using a content type editor moodle/contentbank:useeditor	✓ Allow	!
Create group conversations		

## 2. Create this role

Create live sessions instance mod/bigbluebuttonbn:addinstancewithmeeting	✓ Allow	
Create instance with recordings mod/bigbluebuttonbn:addinstancewithrecording	✓ Allow	
<b>Activity: Feedback</b>		
Create private template mod/feedback:createprivatetemplate	✓ Allow	!
Create public template mod/feedback:createpublictemplate	✓ Allow	!
<b>Activity: Forum</b>		
Create attachments mod/forum:createattachment	✓ Allow	!
<b>Activity: Glossary</b>		
Create comments mod/glossary:comment	✓ Allow	!
Create new entries mod/glossary:write	✓ Allow	!
<b>Activity: Wiki</b>		
Create new wiki pages mod/wiki:createpage	✓ Allow	!
<div>Create this role Cancel</div>		
<a href="#">Back to the list of all roles</a>		

3.

## 3. Create a Web Service User

- Add a New User:

1. Go to Site administration > Users > Accounts > Add a new user.

**focusteck** Home Dashboard My courses Site administration

Accounts / Browse list of users

### LMS Focusteck

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Changes saved

	First name / Last name	Email address	Last access
<input type="checkbox"/>	AU Admin User	user@example.com	55 secs
<input type="checkbox"/>	api-user I	something@juma.com	Never

Download table data as Comma separated values (.csv) Download

With selected users... Choose...

> Interests

> Optional

Create user Cancel

2.

3. Fill in the required details for the user who will be assigned to handle the web services.

- **Assign the Role to the User:**

Back

### Assign role 'Manager' in System

Warning: Any roles you assign from this page will apply to users throughout the entire system, including the site home and all courses.

Existing users

Existing users (1)

api-user I (something@juma.com)

Potential users

Potential users (1)

Admin User (user@example.com)

◀ Add

Remove ▶

1. Go to Site administration > Users > Permissions > Assign system roles.

2. Assign the **api-user** role to the newly created user.

## 4. Enable the REST Protocol

- **Enable REST:**

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### Web services

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1. Go to Site administration > **Server** > Web services > Manage protocols.



[Web services](#) / [Manage protocols](#)

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### Manage protocols

#### Active web service protocols

Protocol	Version	Enable
REST protocol	2024042200	
SOAP protocol	2024042200	

For security reasons, only protocols that are in use should be enabled.

Web services documentation  
enablesdocumentation

☐ Default: No



Enable auto-generation of web services documentation. A user can access to his own documentation on his security keys page [More details](#). It only.

[Save changes](#)

2. Enable the REST protocol by clicking on the eye to enable and save changes

## Manage protocols

### Active web service protocols

Protocol	Version	Enable
REST protocol	2024042200	
SOAP protocol	2024042200	

For security reasons, only protocols that are in use should be enabled.

Web services documentation  
enablewsdocumentation

☐ Default: No

Enable auto-generation of web services documentation. A user can access to his own documentation on his secur only.


Save changes

3.

## 5. Create a Web Service

- **Add a New Service:**

1. Go to Site administration > **Server** > Web services > External services.



Home Dashboard My courses **Site administration**

### Server

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- Outgoing mail configuration
- Incoming mail configuration
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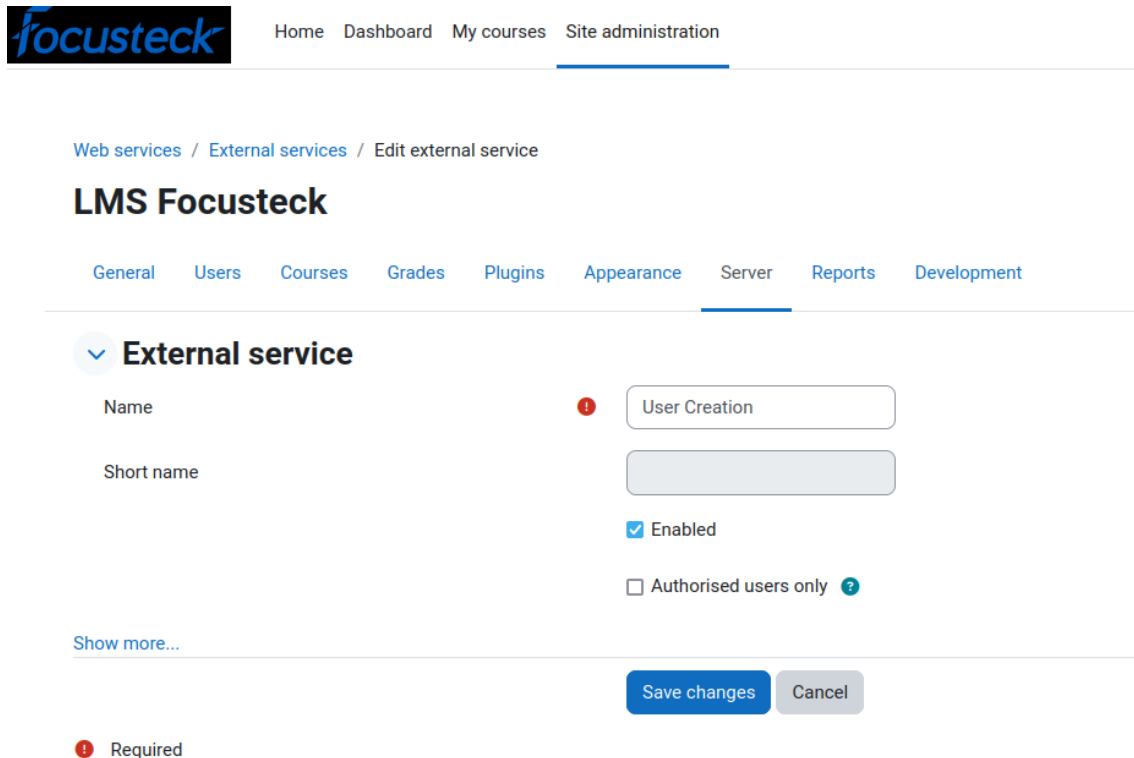
### Web services

- Overview
- API Documentation
-  External services
- Manage protocols
- Manage tokens

2.



3. Add a new service and name it, for example, User Creation Service.
- 4.
5. Ensure the service is enabled and is selected.



The screenshot shows the 'Edit external service' page for 'User Creation' in the LMS Focusteck. The breadcrumb trail is 'Web services / External services / Edit external service'. The page title is 'LMS Focusteck'. The navigation tabs are 'General', 'Users', 'Courses', 'Grades', 'Plugins', 'Appearance', 'Server', 'Reports', and 'Development'. The 'External service' section is expanded, showing the 'Name' field with 'User Creation', the 'Short name' field, and the 'Enabled' checkbox checked. There is a red warning icon next to the 'Name' field. Below the 'Enabled' checkbox is the 'Authorised users only' checkbox, which is unchecked. A 'Show more...' link is visible. At the bottom, there are 'Save changes' and 'Cancel' buttons. A red warning icon is also present next to the 'Required' label.

Web services / External services / Edit external service

## LMS Focusteck

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External service

Name ! User Creation

Short name

☒ Enabled

☐ Authorised users only ?

Show more...

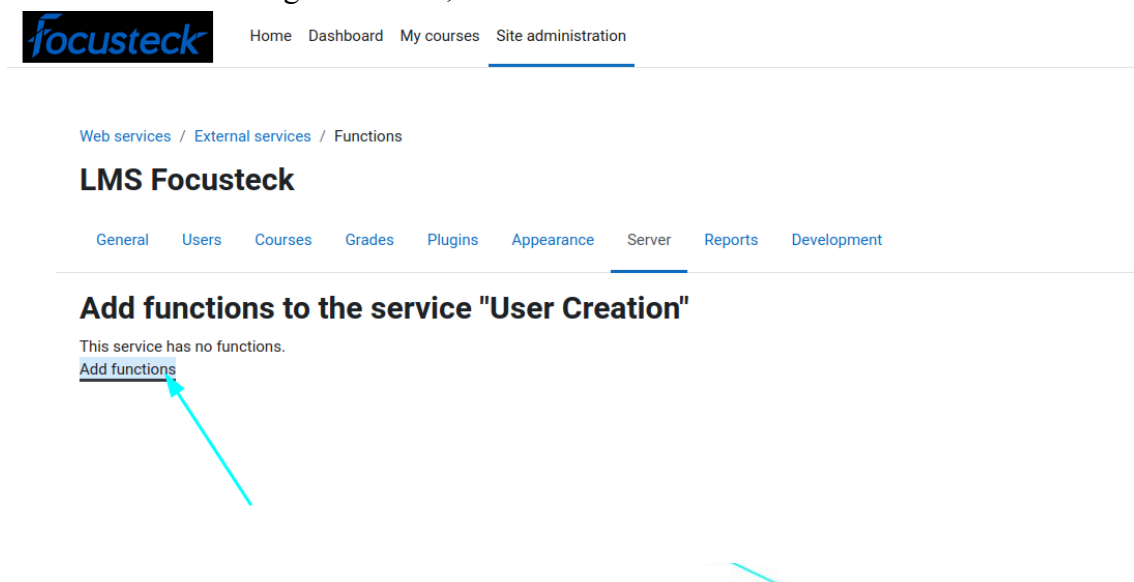
Save changes Cancel

! Required

6.

- **Add Functions:**

1. After creating the service, click on Functions next to the service name.



The screenshot shows the 'Functions' page for the 'User Creation' service in the LMS Focusteck. The breadcrumb trail is 'Web services / External services / Functions'. The page title is 'LMS Focusteck'. The navigation tabs are 'General', 'Users', 'Courses', 'Grades', 'Plugins', 'Appearance', 'Server', 'Reports', and 'Development'. The page title is 'Add functions to the service "User Creation"'. Below the title, it says 'This service has no functions.' and there is a link 'Add functions' with a red arrow pointing to it.

Web services / External services / Functions

## LMS Focusteck

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### Add functions to the service "User Creation"

This service has no functions.

[Add functions](#)

2.

3. Add the following functions to the service:

- `core_user_create_users` (for creating users)

## LMS Focusteck

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### User Creation

#### ▼ Add functions

Name ! No selection

core\_user|

core\_user\_add\_user\_device:Store mobile user devices information for PUSH Notifications.  
 core\_user\_add\_user\_private\_files:Copy files from a draft area to users private files area.  
 core\_user\_agree\_site\_policy:Agree the site policy for the current user.  
 core\_user\_create\_users:Create users.  
 core\_user\_delete\_users>Delete users.  
 core\_user\_get\_course\_user\_profiles:Get course user profiles (each of the profiles matching a course id and a user id).  
 core\_user\_get\_private\_files\_info>Returns general information about files in the user private files area.  
 core\_user\_get\_users:search for users matching the parameters  
 core\_user\_get\_users\_by\_field:Retrieve users' information for a specified unique field - If you want to do a user search, use  
 core\_user\_get\_user\_preferences:Return user preferences

! Required

- core\_user\_update\_users (for updating users)

! No selection

core\_user\_u|

core\_user\_update\_picture:Update or delete the user picture in the site  
 core\_user\_update\_users:Update users.  
 core\_user\_update\_user\_device\_public\_key:Store mobile user public key.  
 core\_user\_update\_user\_preferences:Update a user's preferences

- core\_user\_delete\_users (for deleting users)

focusteck

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LMS Focusteck

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🔍

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Add functions to the service "User Creation"

Function	Description	Required capabilities	Edit
core_user_create_users	Create users.	moodle/user:create	<a href="#">Remove</a>
core_user_delete_users	Delete users.	moodle/user:delete	<a href="#">Remove</a>
core_user_update_users	Update users.	moodle/user:update	<a href="#">Remove</a>

Add functions

## 6. Create a Token for API Access

### • Generate a Token:

1. Go to Site administration > Server > Web services > Manage tokens.

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2.

3. Click Add to generate a new token.

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## Manage tokens

Create token

> Tokens filter

Nothing to display

4.

5. Select the web service user you created earlier and the service (User Creation Service) to link the token to.

## LMS Focusteck

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### Manage tokens

Create token

Copy the token now. It won't be shown again once you leave this page.

api  
07cfc3b34bd4a6ce1322ba67cc145f3 [Copy to clipboard](#)

#### Tokens filter

Name	First name / Last name	Service	IP restriction	Valid until	Last access	Create
api	api-user   something@juma.com	User Creation		This token has no expiry date.	Never	Admin

IP restriction

Valid until

☒ Enable 20 September 2024

Save changes

Cancel

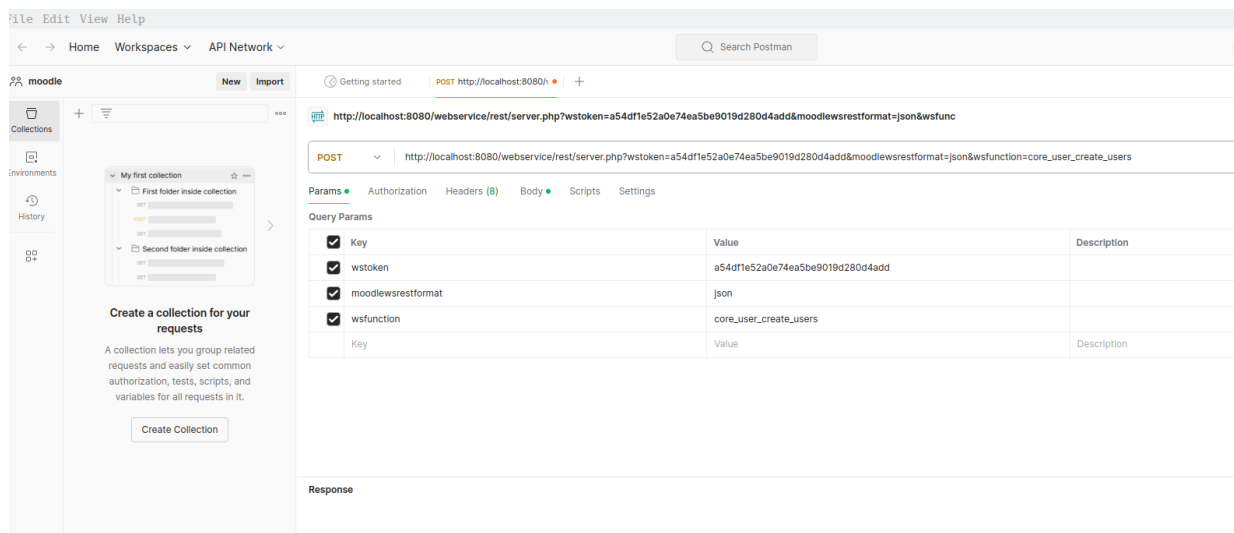
Required

6.

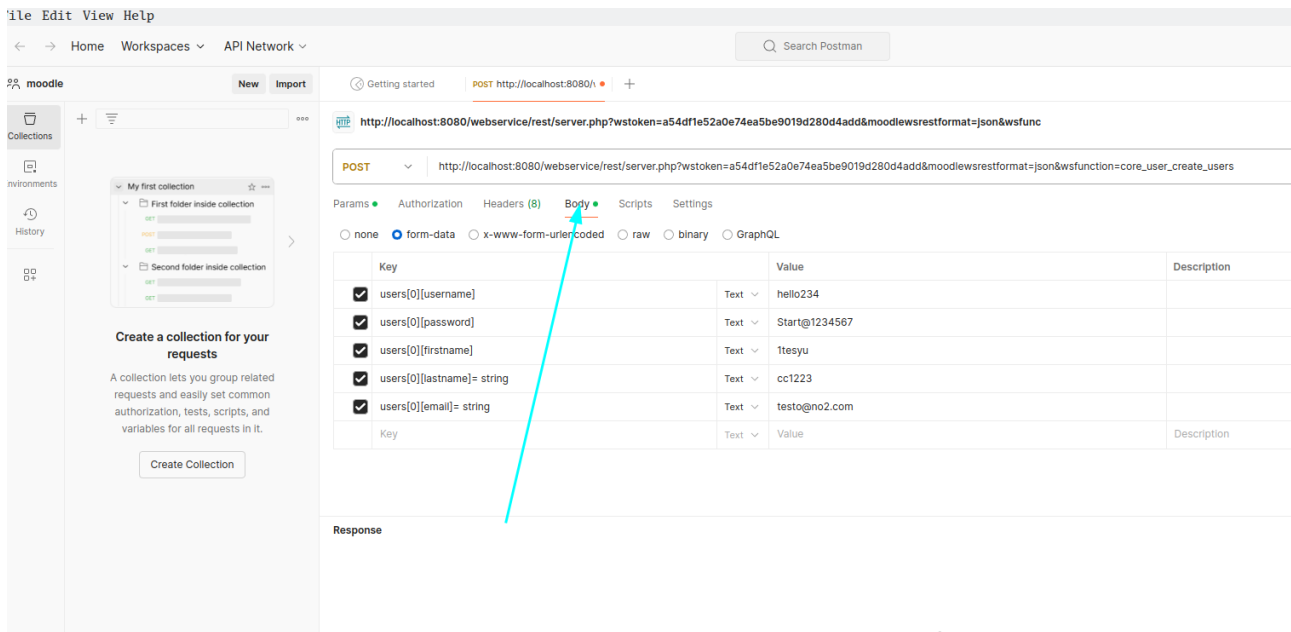
7. Copy the token as will be used later

## 7. Use the Moodle API to Create a User

- **Make a REST API Call:** To create a user, you need to send a POST request to the Moodle endpoint with the necessary parameters.



- I have Postman to test the functionality



## 8. Test the API

- Send a request to the Moodle server and check the response to ensure that the user creation is successful.

This setup allows you to create users via the Moodle API using a REST call. You can adapt this process for other functions and integrate it into your system as needed.