



# Moodle API Documentation

## Contents

Introduction.....	2
Users .....	3
Courses.....	4
Enable Moodle Web Services.....	5
Activate Moodle Web Service Protocols.....	5
Create Moodle Role .....	5
Create Moodle Service User .....	7
Create user .....	7
Assign user role.....	7
Remove Manager Archetype .....	7
Create Moodle Web Service .....	9
Create Moodle Token .....	10
Campus Café Custom Control .....	11
Sync enrollments.....	11
Campus Café Web App Config .....	12

# Introduction

The Campus Café to Moodle API will enroll and drop students when their enrollment changes in Campus Café. The API does not transfer assignment or final grades between systems. The API will not create users or courses in Moodle although Campus Café offers a report that may be imported into Moodle for bulk creation or update of users.

**These directions are written based on Moodle 3.7.4**

# Users

Users in Moodle include instructors and students. These users only need to be established once in Moodle and are connected to Campus Café by their Campus Café ID number. Regardless of how users are created in Moodle, each user must be associated with his or her Campus Café ID number. In the Moodle interface, the ID is added and edited on the user screen.

## **Individually create user or tie existing user to Campus Café ID**

1. Log in to Moodle
2. Navigate to Site administration → Users → Category: Accounts → Add a new user (To edit an existing user, find the user and click the gear for settings.)
3. Complete the general fields in agreement with your business processes
4. Click the Optional section to show additional fields
5. In the ID number box enter the Campus Café ID number
6. Click Create user or Update profile

## **Mass import users from Campus Café**

Campus Café provides a pre-defined report for a user upload. The report Moodle Student ID Number Listing is available in Base Reports under the Administrator Reports folder. Export the file as a .CSV file.

See Moodle Documentation at [https://docs.moodle.org/22/en/Upload\\_users](https://docs.moodle.org/22/en/Upload_users)

1. Log in to Moodle
2. Navigate to Site administration → Users
3. Click Category: Accounts
4. Click Upload users
5. Choose your file
6. For the CSV delimeter choose the comma
7. For the Encoding choose UTF-8
8. Click Upload Users
9. Configure your upload settings  
Pay special attention to the settings related to creating versus updating users. To have the ID merge into existing Moodle Users, set the upload type to “Add new and update existing users” or “Update existing users only”. In the existing user details choose “Override with file” or “Override with file and defaults”.
10. Click Upload users

# Courses

Each unique course requires a Course ID number to be associated with Campus Café. The Course ID number for a course in Moodle is constructed from the Term, Course Number, and Course Section with a tilde between each field. (Term~CourseNumber~CourseSection) For example, the course CIS 123, Section 1 offered in the term 202010 would be “202010~CIS123~1”.

## **Individually create course or tie existing course to Campus Café ID**

1. Log in to Moodle
2. Navigate to Site Administration → Courses
3. Click Add a New Course  
(To update an existing course, navigate to the course, click the gear and then click Edit Settings)
4. Complete the general fields in agreement with your business processes
5. In the Course ID number, enter the unique number to tie the course to Campus Café. For example, 202010~CIS123~1
6. Click Save

# Enable Moodle Web Services

Moodle must have Web Services enabled to make the connection to Campus Café.

1. Log in to Moodle
2. Navigate to Site administration → Advanced features
3. Next to Enable web services check the box
4. Click Save Changes

# Activate Moodle Web Service Protocols

1. Log in to Moodle
2. Navigate to Site administration → Plugins → Web services → Manage protocols
3. Ensure the REST protocol is enabled by looking at the eye icon (a slash means it is disabled, click the icon to enable) To enable, click the eye.
4. Click Save changes

# Create Moodle Role

This role in Moodle will tie to the Moodle user that will serve as the bridge between Moodle and Campus Café.

**Note:** Moodle allows the creation of a role based on an XML template. You may request the XML template from Campus Café and create the role by navigating to Site administration → Users → Permissions → Define Roles → Add a new role. Set role or archetype as manager and upload the file. Review and then click Create this Role.

## Assign Role Permissions

1. Log in to Moodle
2. Navigate to Site Administration → Users
3. Click Category: Permissions
4. Click Define Roles
5. Click Add a new Role
6. Leave the defaults blank
7. Click Continue
8. Give the role a short name (e.g. Campus Café)
9. Give the role a Custom full name (e.g. Campus Café)
10. Role archetype: Manager
11. Context types where this role may be assigned: Check System and User

12. Allow role assignments: Select Teacher, Non-editing teacher and student  
(Note this may need to be adjusted depending on your specific roles assigned to instructors and students)
13. In the Capability chart, check Allow for the following:
  - Configure custom fields moodle/course:configurecustomfields
  - View participants moodle/site:viewparticipants
  - Create users moodle/user:create
  - Update user profiles moodle/user:update
  - Create a web service token moodle/webservice:createtoken
  - View user full information moodle/user:viewalldetails
  - Manage categories moodle/category:manage
  - View list of courses you are not enrolled in moodle/category:viewcourselist
  - See hidden categories moodle/category:viewhiddencategories
  - Create courses moodle/course:create
  - Enroll users enrol/manual:enrol
  - Unenroll users from the course enrol/manual:unenrol
  - Change course category moodle/course:changeccategory
  - Change course full name moodle/course:changefullname
  - Change course ID number moodle/course:changeidnumber
  - Change course short name moodle/course:changeshortname
  - Change course summary moodle/course:changesummary
  - Delete courses moodle/course:delete
  - Control section visibility moodle/course:sectionvisibility
  - Update course settings moodle/course:update
  - Enable/disable email address moodle/course:useremail
  - View courses without participation moodle/course:view
  - View hidden courses moodle/course:viewhiddencourses
  - View hidden sections moodle/course:viewhiddensections
  - View hidden user fields moodle/course:viewhiddenuserfields
  - View participants moodle/course:viewparticipants
  - View scales moodle/course:viewscales
  - View suspended users moodle/course:viewsuspendedusers
  - Hide/show courses moodle/course:visibility
  - Assign roles to users moodle/role:assign
  - View user profiles moodle/user:viewdetails
  - View hidden details of users moodle/user:viewhiddendetails
  - Use REST protocol webservice/rest:use
  - Access all groups moodle/site:accessallgroups
14. Click Save

### **Allow Role Assignments**

1. Navigate to Site administration → Users → Permissions
2. Click Define Roles
3. Click the Role created earlier
4. Click Allow role assignments
5. Look for the line corresponding to the role you created
6. Check the boxes to allow the role to have access to the teacher, non-editing teacher and student roles (or your equivalent)
7. Click Save changes

## Create Moodle Service User

A user in Moodle must be created as part of the connection between Campus Café and Moodle. Campus Café recommends creating a generic user for this purpose (e.g. Campus Café). Although the user does not need administrative access, it requires specific permissions.

### Create user

1. Log in to Moodle
2. Navigate to Site Administration → Users
3. Click Category: Accounts
4. Click Add a new user
5. Complete at least username, authentication method, password, first name, last name and email
6. Click Create User

### Assign user role

1. Navigate to Site administration → Users → Permissions
2. Click Assign System Roles
3. Click the role you created earlier
4. Add the user you created earlier to the role

## Remove Manager Archetype

The role initially requires the manager archetype to assign the permissions. To take an extra step to ensure security, remove this archetype once the role is created and user assigned.

1. Navigate to Site Administration → Users
2. Click Category: Permissions
3. Click Define Roles
4. Click the Role you created



5. Click Edit
6. In Role archetype, select none
7. Click Save changes

# Create Moodle Web Service

This allows the function calls to cross the web and make a connection to Campus Café.

1. Log in to Moodle
2. Navigate to Site administration → Plugins
3. Click Category: Web services
4. Under Custom services click Add
5. Give the service a name (e.g. Campus Café)
6. Give the service a short name
7. Check Enabled
8. Check Authorized users only
9. Click Add service
10. Back on the web services page, click Functions next to the service just created
11. Click Add Functions
12. Add the following functions:
  - auth\_email\_signup\_user
  - core\_auth\_confirm\_user
  - core\_course\_check\_updates
  - core\_course\_create\_categories
  - core\_course\_create\_courses
  - core\_course\_delete\_courses
  - core\_course\_edit\_module
  - core\_course\_edit\_section
  - core\_course\_get\_categories
  - core\_course\_get\_courses
  - core\_course\_get\_courses\_by\_field
  - core\_course\_update\_categories
  - core\_course\_update\_courses
  - core\_enrol\_edit\_user\_enrolment – *Moodle versions previous to 3.8*
  - core\_enrol\_submit\_user\_enrolment\_form – *Moodle versions 3.8+*
  - core\_enrol\_get\_enrolled\_users
  - core\_enrol\_get\_users\_courses
  - core\_enrol\_unenrol\_user\_enrolment
  - core\_role\_assign\_roles
  - core\_role\_unassign\_roles
  - core\_user\_get\_users
  - core\_user\_get\_users\_by\_field
  - core\_webservice\_get\_site\_info
  - enrol\_manual\_enrol\_users

enrol\_manual\_unenrol\_users

13. Click Add Functions
14. Back on the web services page, click Authorized users next to the service just created
15. Add the user created to make the connection to Campus Cafe

## Create Moodle Token

1. Log in to Moodle
2. Navigate to Site administration → Plugins → Web Services
3. Under Manage Tokens click Add
4. In the User box, select the user created earlier
5. In the Service box, select the service created earlier
6. Leave IP restriction blank
7. Check Enable
8. Set the date the token will expire. (The Moodle-Campus Café connection will stop working on this date)
9. Click Save Changes
10. Copy the token for future use

# Campus Café Custom Control

## Sync enrollments

Typically, this should be activated (set to Y) but could be deactivated (set to N) during maintenance windows.

### **Moodle enrollments will be dropped when the enrollment is:**

- Dropped (MSPARM WEBDROPLGC can be set to anything)
- Withdrawn from (withdrawal date filled in)
- Added to wait list

### **Moodle enrollments will be added when the enrollment is:**

- Added
- Removed from waitlist
- Withdrawal date is removed.

### **These events can happen in:**

- Course basket (add/drop/replace)
- Course basket edit screen
- Enrollment history screen
- Course Roster (Can remove from wait list).

### **Set Sync**

1. Log in to Campus Café
2. Navigate to Admin → Custom Control Maintenance
3. Locate ProgramId Moodle, Seq 1, Parm 1
4. Click the pencil icon to edit
5. Set Parameter Value 1 to Y
6. Click Save
7. Refresh the cache by navigating to Admin → Admin Servlet → reload data

### **Notes about other parameters and sequences**

- Moodle sequence 2, parameters 1-3 are for legacy versions of Moodle and do not need to be completed if the Moodle version is at least 3.2.
- Sequence 1, parameters 5-7 are not presently supported. They are there for future development by Campus Café.

# Campus Café Web App Config

1. Log in to Campus Café
2. Navigate to Admin → Web App Config
3. In the search box, enter Moodle
4. Update the following Parameters
  - MOODLE\_BASE\_URL – Unique path to your Moodle installation webservice root.  
Typically `https://<your-Moodle-URL>/webservice/rest/server.php`
  - MOODLE\_EMAIL – Optionally enter an email address to receive emails when an enrollment fails
  - MOODLE\_TOKEN – The Moodle token generated in Moodle
  - MOODLE\_VERSION – 3.2 (set as 3.2 for any version 3.2 and beyond)
  - NOTE:* MOODLE\_USERNAME and MOODLE\_PASSWORD should be left empty for Moodle 3.2+ versions.
5. Refresh the cache by navigating to Admin → Admin Servlet → reload data