Overview
This document is to provide you with the guidelines and processes required for committing web code in the hub environment.

Code Flow - HUB

VM / Dev
Code should be developed here - HUB components, modules, and plugins (*not for super groups). Please make sure you have the most update-to-date code from stage as you will not be able “git push” from a terminal there.

Updating dev/VM with new hubzero code from stage
1) Change directory to the web root repo, usually /www/dev and run:
   “git pull --rebase”
2) Run migrations to keep the database updated.
   https://hubzero.org/documentation/1.3.0/webdevs/migrations

Submit a ticket on production for help setting this up on personal VMs.

Check-in code.
1) “git status” to see what files have been added or modified. **There is one repository for web code, please check with other developers before committing their code and provide and appropriate commit message if working in a common dev environment.

2) “git commit” from the git repo folder will prompt your for a commit message. The commit message must be prefixed with [HUBNAME][COMPONENT NAME].

Create migration scripts for database changes (if needed).
https://hubzero.org/documentation/1.3.0/webdevs/migrations
**It is essential that checks are done to test if a table, etc. already exists. Each migration script should be able to run independently and should not rely on another script to prevent script failures and issues that may change the database unexpectedly.

Push code to stage for review.
1) “git push” from a terminal.
**Stage**
Code will be scanned and reviewed here for standards and security. This host may be used for testing and demonstrations before promoting to production. Code can only be promoted to production when all stakeholders of projects agree it is time to publish new versions of projects that wish to be updated (**There is one repository for web code**). Testing must also be completed. Submit a request to promote code to production at least one week (5 business days) prior to the due date.

**Production**
Code here is thoroughly testing and stable. For updates here, please start in dev.

**Code Flow – Super Groups**
Using Gitlab ([https://gitlab.hubzero.org](https://gitlab.hubzero.org))

**VM / Dev**
Code should be developed here – Super Group components, modules, and plugins (*not for overall HUB*). Make sure you have the most update-to-date code from GitLab (*required*) to prevent manual merges in GitLab.
Fork and Clone.
See [https://hubzero.org/documentation/current/webdevs/supergroups_gitlab](https://hubzero.org/documentation/current/webdevs/supergroups_gitlab).


Create migration scripts for database changes (if needed).
[https://hubzero.org/documentation/1.3.0/webdevs/supergroups.migrations](https://hubzero.org/documentation/1.3.0/webdevs/supergroups.migrations)

**It is essential that checks are done to test if a table, etc. already exists. Each migration script should be able to run independently and should not rely on another script to prevent script failures and issues that may change the database unexpectedly.**

Push code to Gitlab.
[https://hubzero.org/documentation/current/webdevs/supergroups_gitlab](https://hubzero.org/documentation/current/webdevs/supergroups_gitlab)

Request Merge.
Please, submit a merge request (Gitlab) to promote code to stage at least one week (5 business days) prior to the due date.
Details: [https://hubzero.org/documentation/current/webdevs/supergroups_gitlab](https://hubzero.org/documentation/current/webdevs/supergroups_gitlab)

Coordinate with your team lead.
After a merge request has been reviewed and granted by HUBzero, your team leader is required to pull the new code into the appropriate group for coordination purposes.
[https://hubzero.org/documentation/1.3.0/webdevs/supergroups_gitlab.developing](https://hubzero.org/documentation/1.3.0/webdevs/supergroups_gitlab.developing)

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only be promoted to production when all stakeholders of projects agree it is time to publish new versions of projects that wish to be updated (**There is one repository for web code). Testing must also be completed. Please, submit a request (hub support ticket) to promote code to production at least one week (5 business days) prior to the due date.

Production
Code here is thoroughly testing and stable. For updates here, please start in dev.

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