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Steps to Integrate Jenkins with Gitlab

The below steps details, how to build maven project(specifically a spring boot project) and create a image out of it and publish the image to NEXUS.

A sample spring boot project with Jenkins declarative pipeline and Dockerfile can be accessed from here

Import the above project to gitlab server directly and configure the project detailed through in previous section to integrate gitlab and Jenkins.

> 💡 Make sure while setting up webhook to select the trigger when merge request is created.

Add NEXUS deployer credentials.

Goto `manage jenkins` → `configure credentials` → `credentials` → `system` → `global credentials` → `Add credentials`. choose kind username and password and add all details.

> ⛔ set the id to `Deployer` as it is hardcoded to Jenkinsfile.(The hardcode is required since we will be using multiple docker registry for release and snapshots. If a single registry is used we can directly configure the docker registry url and credentials in `configure system` → `docker` section.)

Add Environment variables related to docker registry.

Goto `manage jenkins` → `configure system`, environment section. add below environment variables.

Field	Value
DOCKER_RELEASE_REGISTRY	kp-ci:8185
DOCKER_RELEASE_REGISTRY_URL	http://kp-ci:8185/
DOCKER_SNAPSHOTS_REGISTRY	kp-ci:8186
DOCKER_SNAPSHOTS_REGISTRY_URL	http://kp-ci:8185/

> ℹ️ We are configuring here release and snapshot registry urls.

Testing.

- Clone the project from the gitlab.
- Make any dummy change.
- Push the changes to gitlab.
- A Jenkins job should get triggered as soon as you pushed the changes to Gitlab.
- Create a merge request.
- Merge the change.

- Another Jenkins job should get triggered as soon as merged to master.

- At the end of the job a docker image must be pushed to NEXUS.

- Now use below command to pull the image and run the container.

```
$ docker pull kp-ci:8184/apps/k-ci-sample
```

💡 Here we are using public port to access the image not release/snapshot port.

❗ Job might fail while running stage build images with error message related to version security issue. Goto `manage jenkins` → `In-proccess script approval`, approve any pending approvals.