

Title: Install Docker in container for use by GitLab CI build

Post Body:

I'm new to Docker, but have a Java web app project for which my Maven build produces and installs a Docker image. i.e.

```
mvn clean install
```

Produces:

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE	registry.gitlab.com/m
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I'm making use of Spotify's Maven plugin to build this, which I can then deploy to the repository using:

```
mvn docker:push
```

Which works great. **However:** I'm using GitLab for CI, and my `.gitlab-ci.yml` file contains:

```
image: maven:3.3.9-jdk-8  build:    script: 'mvn clean install && mvn docker:push'
```

This nearly works, but fails as Docker is not installed *in my container* which is running the build:

```
[INFO] Building image registry.gitlab.com/me/myapp Dec 31, 2016 8:30:45 PM org.apache.http.impl.execchain.RetryExec execute IN
```

It seems the solution here is to install Docker into the container. I can't find a pre-built image that has Java, Maven *and* Docker, but I did try configuring Docker as a service:

```
services:  - docker:1.13-rc
```

But the result is the same - it seems services are meant to be used as external services that can be *connected to*, but that are not immediately installed within the same container.

**How should I go about** updating my `.yml` file so that the GitLab build can build and push a Docker image?

Accepted Answer:

I think you're very close.

Gitlab works in *stages*, and you've correctly defined a proper `build` stage for your java app. However, you need another stage that will then build your docker image. I'm not all that familiar with Maven and what's configured for your `mvn docker:push` step, but I'm going to assume that it's a pretty simple wrapper around the `docker build` and `docker push` commands.

I'd recommend separating things out into different stages and using artifacts to transfer the built files between containers.

I'd imagine your `.gitlab-ci.yml` file should look something like this:

```
image: maven:3.3.9-jdk-8  stages:    - build_application    - build_image  # This stage builds your application  build_application
```

Highest Rated Answer: None