# Homework M5: Jenkins Advanced

## Assignment

You are expected to create the following

* A setup with two virtual machines – one with **Jenkins** and another with **Docker** installed just like on the practice

*\* You can adjust their parameters in order to fit within your available resources*

* On the **Docker** machine you must deploy **Gitea** (as we did during the practice)
  + Create a repository to host your version of the **BGApp** application
  + Enable **Webhooks**
* On the **Jenkins** machine create a pipeline to build the **BGApp** application. There should be steps for:
  + Downloading the project from your **Gitea** repository
  + Using one **Docker Compose** file to
    - Build the images
    - Create a common network
    - Run the containers (the web container to publish port on **8080**)
  + Testing the application for reachability and that (after a short wait) one of cities (for example Sofia) is displayed
  + Stopping the application and removing the containers
  + Publishing the images to **Docker Hub**
  + Using another **Docker Compose** file to
    - Create a common network
    - Run the containers (the web container to publish port on **80**)

As usual, try to do the infrastructure part as automated as possible. Of course, using **Vagrant**

For the **Jenkins** part, try to automate it as much as possible. Ideally, there should be a **Jenkinsfile** hosted in the repository from which you create the pipeline (try to use the **CLI** to automate this as well)