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