Pre-requisites must know.

Below given summary of DevOps tools Being used in this project.

Github:

- GitHub is a source code repository where a developer will develop the code and push to the GitHub.

GitHub

Docker Hub:

- Docker Hub is a repository where we store the docker images.
- Docker hub is default registry of docker.

HUB

Ansible:

- Ansible is an automation tool.
- Ansible is used for automate task on several servers at the same time.
- we can perform various tasks and automate through ansible.

Jenkins:

- Jenkins is a CI/CD tool to automate the build, testing and deployment process.
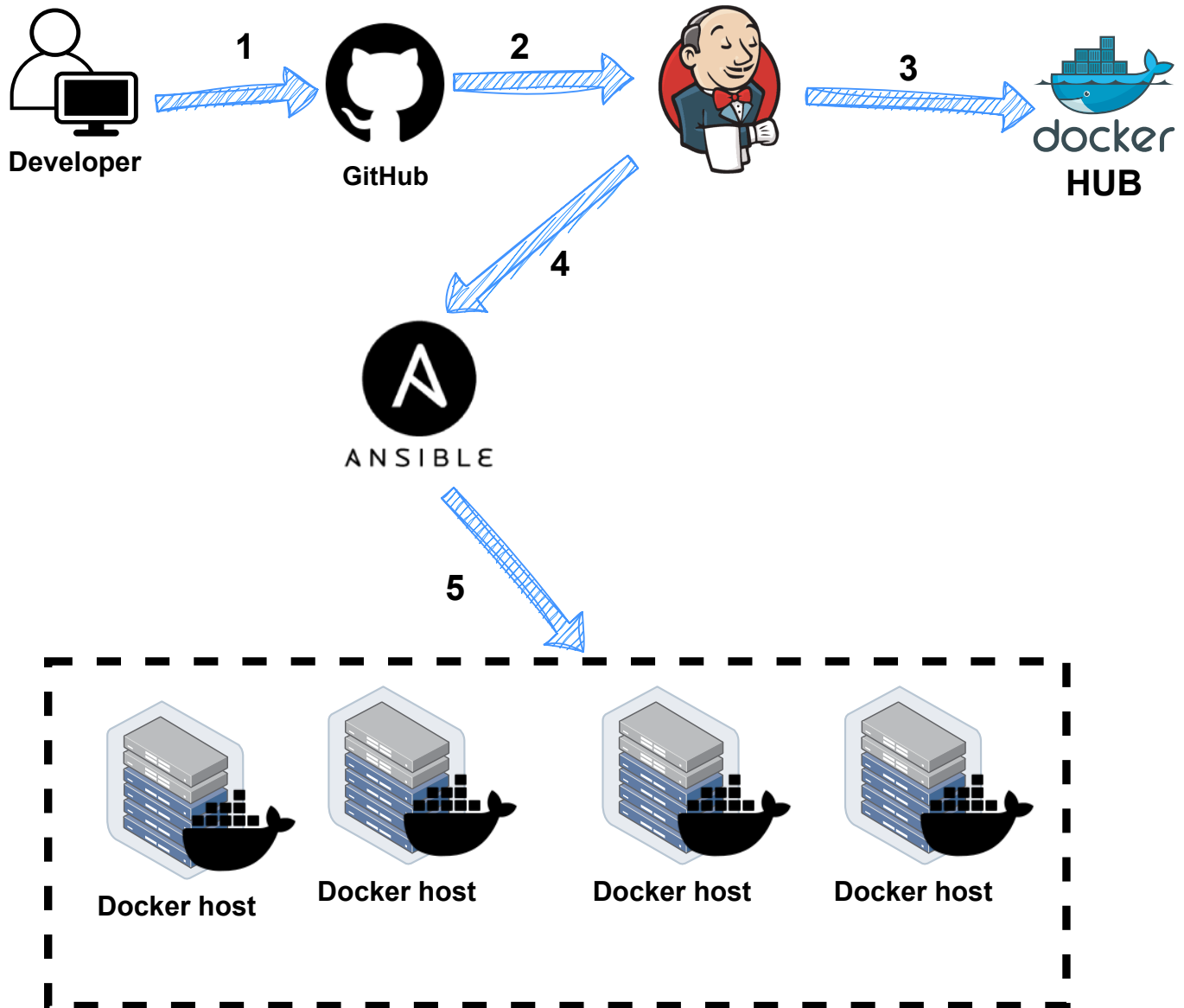
Docker:

- Docker is a container technology where application runs on docker-container.

Linux:

- Linux is an unix based operating system.
- Must have knowledge of linux

Jenkins docker deployment project flow

Developer   **1**   **GitHub**   **2**   **3**   docker **HUB**

4

ANSIBLE

5

Docker host   Docker host   Docker host   Docker host

1. Developer will push the code to the GitHub.

- *git add .*
- *git push origin main*

2. Jenkins will pull the code and compile then build the docker image.

- *docker build -t username/myapp:v1.0 .*

3. Jenkins will push the docker image to docker registry.

- *docker push username/myapp:v1.0*

4. Jenkins will trigger ansible server and run the playbook.

- *ansible-playbook deploy-container.yml*

5. ansible will deploy the containers to the servers

- *docker run --name my-webserver -p 80:80 myapp:v1.0*