**Steps from "HAPI FHIR Install and Configuration\_complete (1).pdf"**

**1. Introduction**

HAPI-FHIR is an open-source FHIR server used for healthcare data exchange. This guide outlines its installation and configuration on a virtual machine using Docker.

**2. Log in to UPHIE VM & Verify Docker**

1. **Check Docker Status:**

sudo systemctl status docker

* + Ensure Docker is active (running).

1. **Start/Stop Docker (if needed):**

sudo systemctl stop docker # Stop Docker

sudo systemctl stop docker.socket

sudo systemctl restart docker # Restart Docker

**3. Docker Basics**

1. **List Containers:**

sudo docker ps # Show running containers

sudo docker ps -a # Show all containers (including stopped)

1. **List Docker Images:**

sudo docker images

**4. Install HAPI FHIR**

1. **Pull HAPI FHIR Docker Image:**

sudo docker pull hapiproject/hapi:latest

1. **Create Configuration Directory:**

mkdir ~/Desktop/fhirConfig

cd ~/Desktop/fhirConfig

1. **Download Default Configuration File:**

wget https://raw.githubusercontent.com/hapifhir/hapi-fhir-jpaserver-starter/master/src/main/resources/application.yaml

* + Edit application.yaml if needed (e.g., database settings, ports).

**5. Deploy HAPI FHIR Container**

1. **Run the Container:**

sudo docker run --name hapifhir -p 8090:8080 -itd \

-v /home/test/Desktop/fhirConfig:/configs \

-e "--spring.config.location=file:///configs/application.yaml" \

hapiproject/hapi:latest

* + **Parameters:**
    - -p 8090:8080: Maps host port 8090 to container port 8080.
    - -v: Binds the config directory to the container.
    - -e: Specifies the custom config file path.

1. **Verify Deployment:**

sudo docker ps # Check if container is running

sudo docker logs hapifhir # View logs for errors

**6. Access HAPI FHIR Portal**

1. Open a browser and navigate to:

http://localhost:8090/

* + Wait a few minutes for the server to start (check logs if it fails).

**7. Manage the Container**

1. **Stop/Start/Restart:**

sudo docker stop hapifhir # Stop container

sudo docker start hapifhir # Start stopped container

sudo docker restart hapifhir # Restart container

**8. Submission Requirements (Lab Tasks)**

1. **Screenshot** of HAPI-FHIR default web UI.
2. **Check System Memory:**

free -h

1. **Verify Open Port (8080):**

sudo ufw status | grep 8080

1. **Check Port 8080 Usage:**

sudo netstat -tulnp | grep 8080