1.   MYSQL SETUP

Login to the VM:
vagrant ssh

Update OS with latest Patches:
yum update -y

Set Repository:
yum install epel-release -y

Install Maria DB Package:
yum install git mariadb-server maven -y

Starting & enabling mariadb-server
systemctl start mariadb
systemctl enable mariadb

RUN mysql secure installation script
mysql_secure_installation
Set db root password, Like I am using admin123

```
Set root password? [Y/n] Y
New password:
Re-enter new password:
Password updated successfully!
Reloading privilege tables..
 ... Success!


By default, a MariaDB installation has an anonymous user, allowing anyone
to log into MariaDB without having to have a user account created for
them.  This is intended only for testing, and to make the installation
go a bit smoother.  You should remove them before moving into a
production environment.

Remove anonymous users? [Y/n] Y
 ... Success!

Normally, root should only be allowed to connect from 'localhost'.  This
ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] n
 ... skipping.

By default, MariaDB comes with a database named 'test' that anyone can
access.  This is also intended only for testing, and should be removed
before moving into a production environment.

Remove test database and access to it? [Y/n] Y
 - Dropping test database...
 ... Success!
 - Removing privileges on test database...
 ... Success!

Reloading the privilege tables will ensure that all changes made so far
will take effect immediately.

Reload privilege tables now? [Y/n] Y
 ... Success!
```

Set DB name and users.

mysql -u root -padmin123

mysql> create database accounts;

mysql> grant all privileges on accounts.* TO 'admin'@'%' identified by 'admin123';

mysql> FLUSH PRIVILEGES;

mysql> exit;

Download Source code & Initialize Database.

git clone -b main https://github.com/iamshariqdevops/shariq_vprofile.git

cd shariq_vprofile

mysql -u root -padmin123 accounts < src/main/resources/db_backup.sql

mysql -u root -padmin123 accounts

mysql> show tables;

Restart mariadb-server

systemctl restart mariadb

Starting the firewall and allowing the mariadb to access from port no. 3306

systemctl start firewalld

systemctl enable firewalld

firewall-cmd --get-active-zones

firewall-cmd --zone=public --add-port=3306/tcp --permanent

firewall-cmd --reload

systemctl restart mariadb

2.   Tomcat Setup

Install Dependencies
Yum install dnf -y
dnf -y install java-11-openjdk java-11-openjdk-devel
dnf install git maven wget -y

Change dir to /tmp
cd /tmp/
Download Tomcat Package
wget https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.75/bin/apache-tomcat-9.0.75.tar.gz
tar xzvf apache-tomcat-9.0.75.tar.gz
Add tomcat user
useradd --home-dir /usr/local/tomcat --shell /sbin/nologin tomcat
Copy data to tomcat home dir
cp -r /tmp/apache-tomcat-9.0.75/* /usr/local/tomcat/
Make tomcat user owner of tomcat home dir

```
chown -R tomcat.tomcat /usr/local/tomcat
```

Setup systemctl command for tomcat
Create tomcat service file
```
vi /etc/systemd/system/tomcat.service
Update the file with below content :

[Unit]
Description=Tomcat After=network.target
[Service]
User=tomcat
WorkingDirectory=/usr/local/tomcat
Environment=JRE_HOME=/usr/lib/jvm/jre
Environment=JAVA_HOME=/usr/lib/jvm/jre
Environment=CATALINA_HOME=/usr/local/tomcat
Environment=CATALINE_BASE=/usr/local/tomcat
ExecStart=/usr/local/tomcat/bin/catalina.sh run
ExecStop=/usr/local/tomcat/bin/shutdown.sh
SyslogIdentifier=tomcat-%i
[Install]
WantedBy=multi-user.target
```

Reload systemd files
```
systemctl daemon-reload
```

Start & Enable service
```
systemctl start tomcat
systemctl enable tomcat
```

Enabling the firewall and allowing port 8080 to access the tomcat
```
systemctl start firewalld
systemctl enable firewalld
firewall-cmd --get-active-zones
firewall-cmd --zone=public --add-port=8080/tcp --permanent
firewall-cmd –reload
```

CODE BUILD & DEPLOY

Update configuration
```
vim src/main/resources/application.properties
```

Update file with backend server details

Build code

Run below command inside the repository (vprofile-project)

mvn install

Deploy artifact

systemctl stop tomcat

rm -rf /usr/local/tomcat/webapps/ROOT*
cp target/vprofile-v2.war /usr/local/tomcat/webapps/ROOT.war
systemctl start tomcat
chown tomcat.tomcat usr/local/tomcat/webapps -R
systemctl restart tomcat