Deploy A Java Application on a Tomcat Server Using Maven, Jenkins and AWS

Github Link: https://github.com/NiteeshManne?tab=repositories

1)Login to the AWS Console

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2)Go to EC2 instance and create two instances one for master and another one is for slave

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3)Add port no:8080 to the instances master:8080,slave:8082

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4)Connect to master slave and install Jenkins in the instance

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5)Copy the public IPV4 address of the master and paste it in browser and last add “:8080” and enter and complete the setup of Jenkins in browser.

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6)Now open another command prompt and connect the slave instance install java and maven

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7)Open Tomcat in browser and copy the link of tar.gz file

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8)Install tomcat in instance using the commands in below image and extract the file

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A screen shot of a computer

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9)Now navigate to extracted tomcat file and navigate to the path “cd webapps/manager/META-INF” and open the open the context.xml file and edit it.

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10)Now go back to tomcat file and edit server.xml,tomcat\_user.xml files

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11)Now navigate to bin in tomcat and start it by running startup.sh file “/.startups.sh”

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12)Create a slave in the instance , login as the slave and generate ssh key and change permissions of the file

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13)Copy the IPV4 address the Slave instance and paste it in browser.

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14)Now change permissions of the instance visudo and sshd\_config files

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15)Once restart the ssh key using the command “sudo systemctl restart sshd”

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16)Copy the slave nodes public key to master node known\_host file and change its permission

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17)Now go to Jenkins in browser and click on “manage Jenkins”.

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18)Click on “nodes and clouds”.

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19)Click on new node and give a name to the node and select the “permanent node” and click on “ok”. Give a name and root directory

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20)In launch method select the launch agent via ssh and give ip address of slave and credentials of the slave and click on “save”.

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21)In the left navigation panel click on log now you can see the agent is online.

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22)Now go to dashboard and click manage Jenkins.

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23)Select plugins.

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24)Select the below plugins in the image and click in “install without restart”.

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25)Now go back to manage Jenkins and click on “tools” option.

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26)Go below and add maven details and click on save.

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27)Click on create job and give a name to the job, select “freestyle project” and click on “ok”.

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28)Enable “Restrict where the project can be run” and give the name of your slave.

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29)Select “Git” in source code management and give repo url and edit the branch name i.e., same name in the repo is saved.

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30)In build steps select “Invoke top-level maven target” and give the details of your maven.

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31)Post-Build Actions select: “Deploy war/ear to container – “\*\*/\*.war”

“Tomcat 9.x remote – user details(details given in user file) and tomcat url” and click on “save.

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32)Click on “Build now” you can see the project is executed and go to the builded on see the console output.

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33)Go to tomcat browser “manager🡪sign in 🡪 webapp” you can see the repo.

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34)Create another slave user in the slave in another or same instance if it is different instance repeat the all the installation(git,maven,tomcat,java) and adding user to tomcat and share the details to the master or you can give the above slave details also.

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