Automate build and deployment on Docker container

Update existing job

≡ **Send build artifacts over SSH** ?

SSH Publishers

≡ **SSH Server**

Name ?

dockerhost

Advanced ⌄

Transfers

≡ **Transfer Set**

Source files ?

webapp/target/webapp.war

Remove prefix ?

webapp/target

Remote directory ?

//opt//docker

Exec command ?

```
cd /opt/docker;
docker build -t regapp:v1 .;
docker run -dit --name registerapp -p 8086:8080 regapp:v1
```

All of the transfer fields (except for Exec timeout) support substitution of **Jenkins environment variables**

Advanced ⌄

Build the job


```
[root@docker docker]# docker images
REPOSITORY    TAG       IMAGE ID       CREATED         SIZE
regapp        v1        bae85fc6e34a   3 minutes ago   460MB
tomcat        latest    5a4ee0c8ccbe   2 days ago      455MB
[root@docker docker]#
[root@docker docker]#
[root@docker docker]# docker ps
CONTAINER ID   IMAGE        COMMAND            CREATED         STATUS         PORTS                                            NAMES
d6e5ef6fc3cc   regapp:v1    "catalina.sh run"  3 minutes ago   Up 3 minutes   0.0.0.0:8086->8080/tcp, :::8086->8080/tcp       registerapp
[root@docker docker]#
[root@docker docker]#
[root@docker docker]# ls
1  Dockerfile  webapp.war
[root@docker docker]#
[root@docker docker]#
[root@docker docker]#
```

New user Register

Please fill in this form create an account.

Enter Name [Enter Name]
Enter Mobile [Enter moible number]
Enter Email [Enter Email]
Password [Enter Jayaj username for ins]
Repeat Password [Repeat Password]

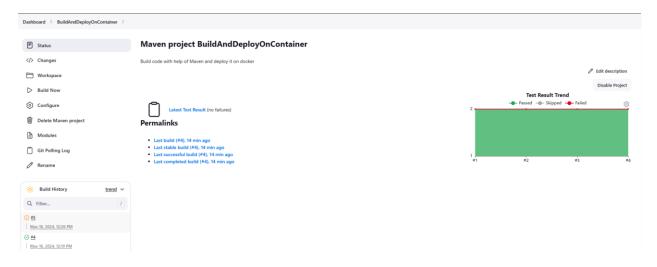By creating an account you agree to our Terms & Privacy.

[Register]

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Happy Learning student

Now update the code push on git hub again run the job

It will be giving the error

Dashboard > BuildAndDeployOnContainer >

Maven project BuildAndDeployOnContainer

Build code with help of Maven and deploy it on docker

Status
Changes
Workspace
Build Now
Configure
Delete Maven project
Modules
Git Polling Log
Rename

Latest Test Result (no failures)

Permalinks

- Last build (#4), 14 min ago
- Last stable build (#4), 14 min ago
- Last successful build (#4), 14 min ago
- Last completed build (#4), 14 min ago

Edit description
Disable Project

Test Result Trend
Passed — Skipped — Failed

Build History   trend ∨

Q Filter...

#5
May 16, 2024, 12:26 PM

#4
May 16, 2024, 12:10 PM

```
[INFO] Finished at: 2024-05-16T12:26:28Z
[INFO] ------------------------------------------------------------------------
Waiting for Jenkins to finish collecting data
[JENKINS] Archiving /var/lib/jenkins/workspace/BuildAndDeployOnContainer/webapp/pom.xml to com.example.maven-project/webapp/1.0-SNAPSHOT/webapp-1.0-SNAPSHOT.pom
[JENKINS] Archiving /var/lib/jenkins/workspace/BuildAndDeployOnContainer/webapp/target/webapp.war to com.example.maven-project/webapp/1.0-SNAPSHOT/webapp-1.0-SNAPSHOT.war
[JENKINS] Archiving /var/lib/jenkins/workspace/BuildAndDeployOnContainer/server/pom.xml to com.example.maven-project/server/1.0-SNAPSHOT/server-1.0-SNAPSHOT.pom
[JENKINS] Archiving /var/lib/jenkins/workspace/BuildAndDeployOnContainer/server/target/server.jar to com.example.maven-project/server/1.0-SNAPSHOT/server-1.0-SNAPSHOT.jar
[JENKINS] Archiving /var/lib/jenkins/workspace/BuildAndDeployOnContainer/pom.xml to com.example.maven-project/maven-project/1.0-SNAPSHOT/maven-project-1.0-SNAPSHOT.pom
channel stopped
SSH: Connecting from host [jenkins-server]
SSH: Connecting with configuration [dockerhost] ...
SSH: EXEC: completed after 400 ms
SSH: Disconnecting configuration [dockerhost] ...
ERROR: Exception when publishing, exception message [Exec exit status not zero. Status [125]]
Build step 'Send build artifacts over SSH' changed build result to UNSTABLE
Finished: UNSTABLE
```

To verify run those commands and check into on terminal.

After that you find problem what was the problem while running the job

```
[root@docker docker]# docker build -t regapp:v1 .
Sending build context to Docker daemon  6.144kB
Step 1/3 : FROM tomcat:latest
 ---> 5a4ee0c8ccbe
Step 2/3 : RUN cp -R /usr/local/tomcat/webapps.dist/* /usr/local/tomcat/webapps
 ---> Using cache
 ---> c451fe326edb
Step 3/3 : COPY ./*.war /usr/local/tomcat/webapps
 ---> Using cache
 ---> f3b1691bd9fc
Successfully built f3b1691bd9fc
Successfully tagged regapp:v1
[root@docker docker]#
[root@docker docker]# docker images
REPOSITORY    TAG       IMAGE ID       CREATED          SIZE
regapp        v1        f3b1691bd9fc   4 minutes ago    460MB
<none>        <none>    bae85fc6e34a   19 minutes ago   460MB
tomcat        latest    5a4ee0c8ccbe   2 days ago       455MB
[root@docker docker]#
[root@docker docker]# docker ps -a
CONTAINER ID   IMAGE          COMMAND            CREATED          STATUS          PORTS                                              NAMES
d6e5ef6fc3cc   bae85fc6e34a   "catalina.sh run"  19 minutes ago   Up 19 minutes   0.0.0.0:8086->8080/tcp, :::8086->8080/tcp   registerapp
[root@docker docker]#
[root@docker docker]# docker run -dit --name registerapp -p 8086:8080 regapp:v1
docker: Error response from daemon: Conflict. The container name "/registerapp" is already in use by container "d6e5ef6fc3cc939b54df1a9a9627dda898108654c060941800ce678348542e6c".
me) that container to be able to reuse that name.
See 'docker run --help'.
[root@docker docker]#
[root@docker docker]#
```

So we need to update our jenkins job

Exec command ?

```
cd /opt/docker;
docker build -t regapp:v1 .;
docker stop registerapp;
docker rm registerapp;
docker run -dit --name registerapp -p 8086:8080 regapp:v1
```

All of the transfer fields (except for Exec timeout) support substitution of **Jenkins environment variables**

Now build job again change the push on GitHub again build the job we achieve docker automation.