



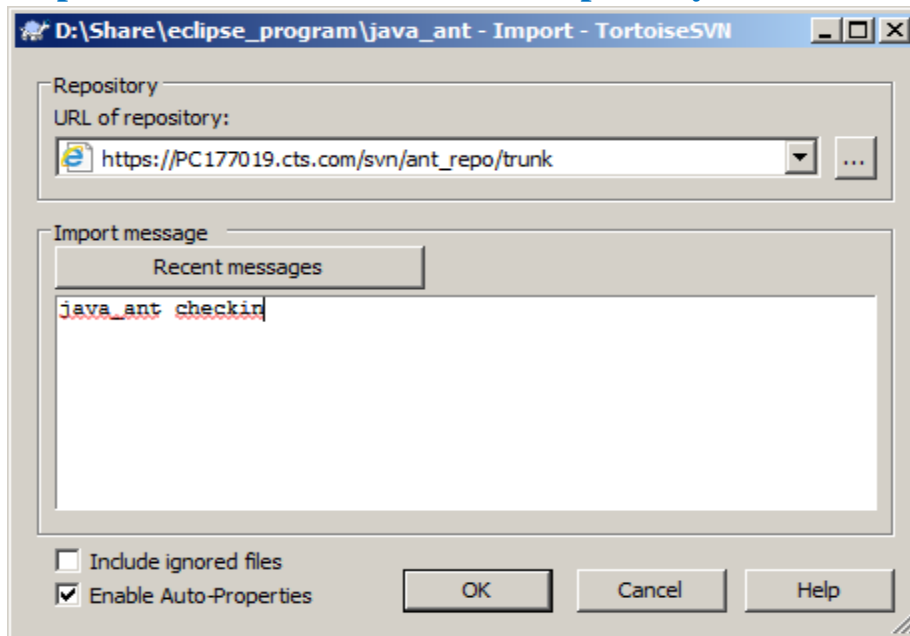
DEPLOYMENT IN WEBLOGIC USING IBM UDEPLOY

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Steps to deploy simple java project in web logic using IBM UDeploy

Step 1: Check-in the code in SVN repository



Step 2: Jenkins Configuration with Sonar and Ant

1. Create a freestyle Jenkins job.

Jenkins

Item name:

- Freestyle project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.
- Maven project
Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.
- External Job
This type of job allows you to record the execution of a process run outside Jenkins, even on a remote machine. This is designed so that you can use Jenkins as a dashboard of your existing automation system. See [the documentation for more details](#).
- Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.
- Copy existing Item
Copy from:

Build Queue: No builds in the queue.

Build Executor Status:

- master
 - 1 Idle
 - 2 Idle
 - 3 Idle
 - 4 Idle
 - 5 Idle
 - 6 Idle
 - 7 Idle
 - 8 Idle
 - 9 Idle
 - 10 Idle
- Seema (offline)
- Yavana (offline)
- seemaK (offline)

Page generated: Jun 27, 2016 2:48:18 PM

- For invoking ANT script you need to have **Ant Plugin** installed in the Jenkins so first install it (if it is already installed then just skip this step).
Now configure ant with your Jenkins, (Set the Name and ANT_HOME).

Ant

Ant installations

Name:

ANT_HOME:

Install automatically

List of Ant installations on this system

- Configure SVN in the Jenkins job

Source Code Management

- None
- CVS
- CVS Projectset
- File System

Subversion

Modules	Repository URL	<input type="text" value="https://PC177019.cts.com/svn/java_ant_repo/trunk"/>	?
---------	----------------	---	-------------------

Local module directory (optional)	<input type="text" value="."/>	?
-----------------------------------	--------------------------------	-------------------

Repository depth	<input type="text" value="infinity"/>	?
------------------	---------------------------------------	-------------------

Ignore externals	<input type="checkbox"/>	?
------------------	--------------------------	-------------------

Add more locations...

Check-out Strategy	<input type="text" value="Use 'svn update' as much as possible"/>	?
--------------------	---	-------------------

Use 'svn update' whenever possible, making the build faster. But this causes the artifacts from the previous build to remain when a new build starts.

Repository browser	<input type="text" value="(Auto)"/>	?
--------------------	-------------------------------------	-------------------

Advanced...

Build Triggers

- Trigger builds remotely (e.g., from scripts) [?](#)
- Build after other projects are built [?](#)
- Build periodically [?](#)
- Poll SCM [?](#)

Schedule	<input type="text" value="H/15 ****"/>	?
----------	--	-------------------

Would last have run at Monday, June 27, 2016 3:00:52 PM IST; would next run at Monday, June 27, 2016 3:00:52

Take the code from the SVN repository by providing the SVN repository URL and poll the SVN every 15 minutes this will check for any code change in SVN every 15 minutes.

4. Add Build-step Invoke Ant → give the appropriate apache ant version and set the target as the last target given in your build.xml (ant script).

Build

Invoke Ant ?

Ant Version ▼

Targets ▼ ?

Advanced...

Delete

5. Add the execute Sonar as different build step and give the name of the sonar and add the property file (make sure that you have added the sonar.project property file in the folder which hold the source code (src) and build.xml).

Execute SonarQube Scanner

SonarQube Installation: ▼ ?

Task to run ?

JDK ▼ ?

JDK to be used for this sonar analysis

Path to project properties ?

Analysis properties ?

Additional arguments ▼ ?

JVM Options ▼ ?

6. Build the Jenkins job.

- Back to Project
- Status
- Changes
- Console Output**
 - View as plain text
 - Edit Build Information
 - Delete Build
 - Tag this build
 - Previous Build

- Executed Ant Targets
- clean
 - compile
 - war
 - test

Console Output

```

Started by user admin
Building on master in workspace D:\Swati Jenkins\workspace\seema_web_logic_ant
Switching from https://pc177019.cts.com/svn/java_ant_repo/trunk to https://PC177019.cts.com/svn/java_ant_repo/trunk
Switching to https://PC177019.cts.com/svn/java_ant_repo/trunk at revision '2016-06-27T12:26:00.643 +0530'
U build\classes\java_ant\demo.class
U build\classes\java_ant\junit.class
U build\war\demo.war
At revision 2
no revision recorded for https://PC177019.cts.com/svn/java_ant_repo/trunk in the previous build
[seema_web_logic_ant] $ cmd.exe /C "D:\apache-ant-1.9.4\bin\ant.bat test && exit %ERRORLEVEL%"
Buildfile: D:\Swati Jenkins\workspace\seema_web_logic_ant\build.xml

clean:
[delete] Deleting directory D:\Swati Jenkins\workspace\seema_web_logic_ant\build
[mkdir] Created dir: D:\Swati Jenkins\workspace\seema_web_logic_ant\build\classes
[mkdir] Created dir: D:\Swati Jenkins\workspace\seema_web_logic_ant\build\jar
[echo] Clean done...

compile:
[javac] Compiling 2 source files to D:\Swati Jenkins\workspace\seema_web_logic_ant\build\classes
[echo] compile done

war:
[jar] Building jar: D:\Swati Jenkins\workspace\seema_web_logic_ant\build\war\demo.war
[echo] war file created

test:
[echo] test done

BUILD SUCCESSFUL
Total time: 0 seconds
[seema_web_logic_ant] $ D:\sonar-runner-2.4\bin\sonar-runner.bat -e -Dsonar.host.url=http://10.219.193.101:9000 *****
-Dsonar.language=java -Dsonar.projectName=Java ant -Dsonar.projectVersion=1.0 -Dsonar.sourceEncoding=UTF-8 -
-Dsonar.projectKey=org.sonarqube:java-simple-sq-scanner -Dsonar.sources=src "-Dsonar.projectBaseDir=D:\Swati
Jenkins\workspace\seema_web_logic_ant"
D:\sonar-runner-2.4
SonarQube Runner 2.4
Java 1.8.0_91 Oracle Corporation (64-bit)
Windows 7 6.1 amd64
INFO: Error stacktraces are turned on.
INFO: Runner configuration file: D:\sonar-runner-2.4\conf\sonar-runner.properties
INFO: Project configuration file: D:\Swati Jenkins\workspace\seema_web_logic_ant\sonar-project.properties
INFO: Default locale: "en_US", source code encoding: "UTF-8"
INFO: Work directory: D:\Swati Jenkins\workspace\seema_web_logic_ant\.sonar
INFO: SonarQube Server 5.4
12:26:04.273 INFO - Load global repositories
12:26:04.507 INFO - Load global repositories (done) | time=246ms
12:26:04.541 WARN - Property 'sonar.jdbc.url' is not supported any more. It will be ignored. There is no longer any DB
connection to the SQ database.
12:26:04.541 INFO - User cache: C:\Windows\system32\config\systemprofile\.sonar\cache
12:26:04.910 INFO - Load plugins index

12:26:08.708 INFO - Configured Java source version (sonar.java.source): none
12:26:08.713 INFO - JUnit classpath initialization...
12:26:08.713 WARN - Bytecode of dependencies was not provided for analysis of source files, you might end up with less
precise results. Bytecode can be provided using sonar.java.libraries property
12:26:08.713 INFO - JavaClasspath initialization done: 0 ms
12:26:08.713 INFO - JavaTestClasspath initialization...
12:26:08.713 WARN - Bytecode of dependencies was not provided for analysis of test files, you might end up with less
precise results. Bytecode can be provided using sonar.java.test.libraries property
12:26:08.713 INFO - JavaTestClasspath initialization done: 0 ms
12:26:09.157 INFO - Java Main Files AST scan...
12:26:09.158 INFO - 2 source files to be analyzed
12:26:09.574 INFO - Java Main Files AST scan done: 417 ms
12:26:09.574 INFO - 2/2 source files have been analyzed
12:26:09.574 WARN - Java bytecode has not been made available to the analyzer. The
org.sonar.java.bytecode.visitor.DependenciesVisitor@7ec08115,
org.sonar.java.checks.unused.UnusedPrivateMethodCheck@a09303 are disabled.
12:26:09.574 INFO - Java Test Files AST scan...
12:26:09.574 INFO - 0 source files to be analyzed
12:26:09.574 INFO - Java Test Files AST scan done: 0 ms
12:26:09.574 INFO - 0/0 source files have been analyzed
12:26:09.574 INFO - Sensor JavaSquidSensor (done) | time=1105ms
12:26:09.574 INFO - Sensor Lines Sensor
12:26:09.574 INFO - Sensor Lines Sensor (done) | time=0ms
12:26:09.574 INFO - Sensor QProfileSensor
12:26:09.584 INFO - Sensor QProfileSensor (done) | time=10ms
12:26:09.584 INFO - Sensor SurefireSensor
12:26:09.584 INFO - parsing D:\Swati Jenkins\workspace\seema_web_logic_ant\target\surefire-reports
12:26:09.584 INFO - Sensor SurefireSensor (done) | time=0ms
12:26:09.584 INFO - Sensor SCM Sensor
12:26:09.584 INFO - SCM Publisher is disabled
12:26:09.584 INFO - Sensor SCM Sensor (done) | time=0ms
12:26:09.584 INFO - Sensor Code Colorizer Sensor
12:26:09.584 INFO - Sensor Code Colorizer Sensor (done) | time=0ms
12:26:09.584 INFO - Sensor CPD Sensor
12:26:09.584 INFO - JavaCpdIndexer is used for java
12:26:09.594 INFO - Sensor CPD Sensor (done) | time=10ms
12:26:09.656 INFO - Analysis report generated in 53ms, dir size=21 KB
12:26:09.721 INFO - Analysis reports compressed in 65ms, zip size=10 KB
12:26:09.776 INFO - Analysis report uploaded in 55ms
12:26:09.776 INFO - ANALYSIS SUCCESSFUL, you can browse http://10.219.193.101:9000/dashboard/index/org.sonarqube:java-
simple-sq-scanner
12:26:09.776 INFO - Note that you will be able to access the updated dashboard once the server has processed the
submitted analysis report
12:26:09.776 INFO - More about the report processing at http://10.219.193.101:9000/api/ce/task?id=AVh0pNYLc7e3tUHK780
12:26:09.782 INFO - Executing post-job org.sonar.plugins.buildbreaker.ForbiddenConfigurationBreaker
12:26:09.782 INFO - Executing post-job org.sonar.plugins.buildbreaker.QualityGateBreaker
12:26:09.877 INFO - Waiting for report processing to complete...
12:26:19.930 INFO - Quality gate status: OK
INFO: -----
INFO: EXECUTION SUCCESS
INFO: -----
Total time: 16.427s
Final Memory: 16M/264M
INFO: -----
Finished: SUCCESS

```

The link there in console output will redirect you directly to the sonar analysis page where you can see the quality gate passed.

The screenshot shows the SonarQube dashboard for a project named 'Java_ant'. At the top, the navigation bar includes 'sonarqube', 'Dashboards', 'Issues', 'Measures', 'Rules', 'Quality Profiles', 'Quality Gates', and 'Administration'. The user is logged in as 'Administrator'. The project name 'Java_ant' is displayed, along with the date and time 'June 27, 2016 12:26 PM' and 'Version 1.0'. Below the navigation, there are tabs for 'Technical Debt', 'Coverage', 'Duplications', 'Structure', 'Dashboards', 'Code', 'Issues', and 'Administration'. A 'Quality Gate' section is highlighted with a red box, showing a 'Passed' status. The dashboard features three main metrics: 'Technical Debt' (2d Debt, 13 Issues), 'Duplications' (0.0% Duplications, 0 Duplicated Blocks), and 'Structure' (Java 100.0%, 26 Lines of Code). A 'Leak Period' section shows 'since 1.3 started a month ago' with '2d New Debt' and '13 New Issues'. A 'Quality Gate' section on the right shows 'Gate1' with 'Quality Profiles (Java) Sonar way'. The 'Events' section shows 'Quality Gate: Green (was Red)' and 'Quality Gate: Red (was Green)'. The footer contains the text 'SonarQube™ technology is powered by SonarSource SA' and 'Version 5.4 - LGPL v3 - Community - Documentation - Get Support - Plugins - Web Service API'.

Step 3: IBM UDeploy Configurations

1. Create a resource group, and then add the IBM UrbanCode Deploy agent to the resource group, as shown in the following screen capture(click top level group)

The screenshot shows the IBM UrbanCode Deploy interface. The top navigation bar includes Dashboard, Components, Applications, Configuration, Processes, Resources, Calendar, Work Items, Reports, and Settings. The breadcrumb trail is Home > Resources. Below the breadcrumb, there are tabs for Resource Tree, Resource Templates, Agents, Agent Pools, and Cloud Connections. A toolbar contains buttons for 'Create Top-Level Group', 'Select All...', 'Actions...', and 'Show'. The main area displays a table of resources with columns for Name, Inventory, Status, and Description. A modal dialog box titled 'Create Resource' is open in the foreground, containing fields for Name, Description, and a checkbox for 'Include Agents Automatically'. There are also 'Save' and 'Cancel' buttons at the bottom of the dialog. The background table shows a resource named 'seema_hello' selected, with a sub-agent 'seema (View Agent)' listed below it. The status of 'seema' is 'Offline'.

Name	Inventory	Status	Description
Resource Name	Tags		
Comcast-Dev			
HelloWorld_Sachin			
helloworldTutorial			
jpetstore_maven			
Ragavi_dotnet			Dotnet_project
sampleTutorial			
seema_hello			seema
seema (View Agent)		Offline	
stefi_agent			
Stefi_Hello			
Test			
UAT			
vehicle_store_seema			seema

2. Create components in IBM UrbanCode Deploy

- Click the **Components** tab and then click **Create Component**. In this window, you specify where the artifacts for the component are.
- In the **Name** field, give your component name.
- In the **Source Configuration Type** list, select **File System** and pass the required repository URL.
- Click **Save**.

The screenshot shows the 'Basic Settings' configuration window in IBM UrbanCode Deploy. The window title is 'Used By: seema_jpet_web_app'. The navigation bar includes 'Dashboard', 'Usage', 'Configuration', 'Calendar', 'Versions', 'Processes', and 'Changes'. The left sidebar lists various configuration options, with 'Basic Settings' selected. The main content area is titled 'Basic Settings' and contains the following fields and options:

- Name ***: seema_jpet_web
- Description**: (empty)
- Teams**: +
- Template**: None
- Component Type**: Standard
- Version Source Configuration**
 - Source Configuration Type**: File System (Versioned)
 - Base Path ***: D:\war_jpet
 - Preserve Execute Permissions**:
 - Text File Extensions**: txt,log,properties
 - Import Versions Automatically**:
 - Copy to Code Station**:
 - Default Version Type ***: Full
 - Use the system's default version import agent tag.
 - Import new component versions using a single agent.
 - Import new component versions using any agent with the specified tag.
 - Agent for Version Imports**: seema
- Cleanup Configuration**
 - Inherit Cleanup Settings**:
 - Run Process after a Version is Created**:

At the bottom of the form are 'Save' and 'Cancel' buttons.

3. Go to versions and import the new version

IBM UrbanCode Deploy

Home > Components > seema_jpet_web

Component: seema_jpet_web

Created By: admin
Created On: 6/28/2016, 2:58 PM
Used By: seema_jpet_web_app

Dashboard | Usage | Configuration | Calendar | **Versions** | Processes | Changes

Import New Versions

Version	Statuses	Type	Created By	Date	Description	Actions
2.0	Any	Full	admin	6/28/2016, 3:28 PM		Compare Delete
mike-lbatis-jpetstore-ant-master		Full	admin	6/28/2016, 3:23 PM		Compare Delete
1.0		Full	admin	6/28/2016, 3:05 PM		Compare Delete

3 records - Refresh Print

Currently Running Version Imports

Import Type	Agent	Start	End	Status	Actions
No executing version imports found.					

Refresh Print

4. Go to process and create a new process with following configurations:

IBM UrbanCode Deploy

Home > Components > seema_jpet_web > Processes > Process: jpet_seema

Process: jpet_seema

Version: 4 of 4

Design | Configuration | Changes

Start

Download Artifacts (v. 23)

Deploy (v. 6)

Finish

Step Palette

- Finish
- Clipboard
- Utility Steps
- Application Server
 - IIS
 - IIS MSDeploy
 - Delete
 - msdeploy
 - Recycle Application
 - Start Application
 - Stop Application
 - Synchronize
- Java

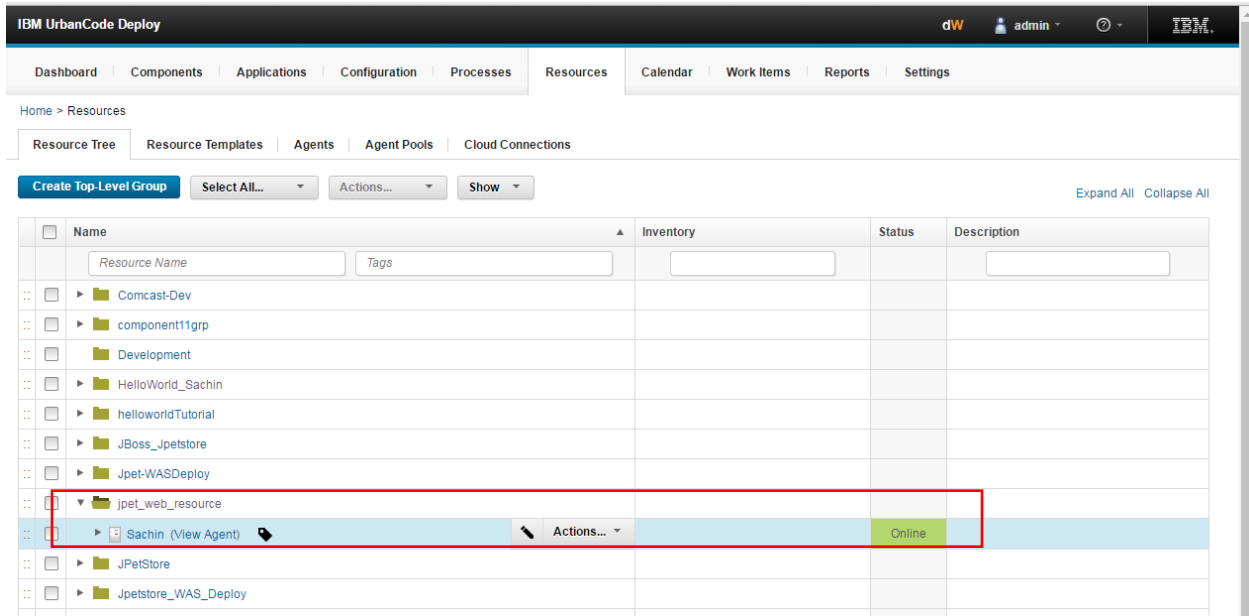
- Firstly, download the artifacts and apply the default properties.
- Then, add Deploy step with the below mentioned configurations:
 - **Deployment Name:** the name of the project with which it will get deployed.
 - **Admin URL:** Give the URL of the web logic you are using (like here, **t3://localhost:7001**).
 - **User Name & Password:** Give the username and password of the web logic server.
 - **Target & Source:** Pass the target as AdminServer and in source give the complete name of your war file.
 - **Deployment Classpath:** Set it as default (as given).

The screenshot shows the 'Edit Properties' dialog box for a Jenkins Deploy step. The fields are as follows:

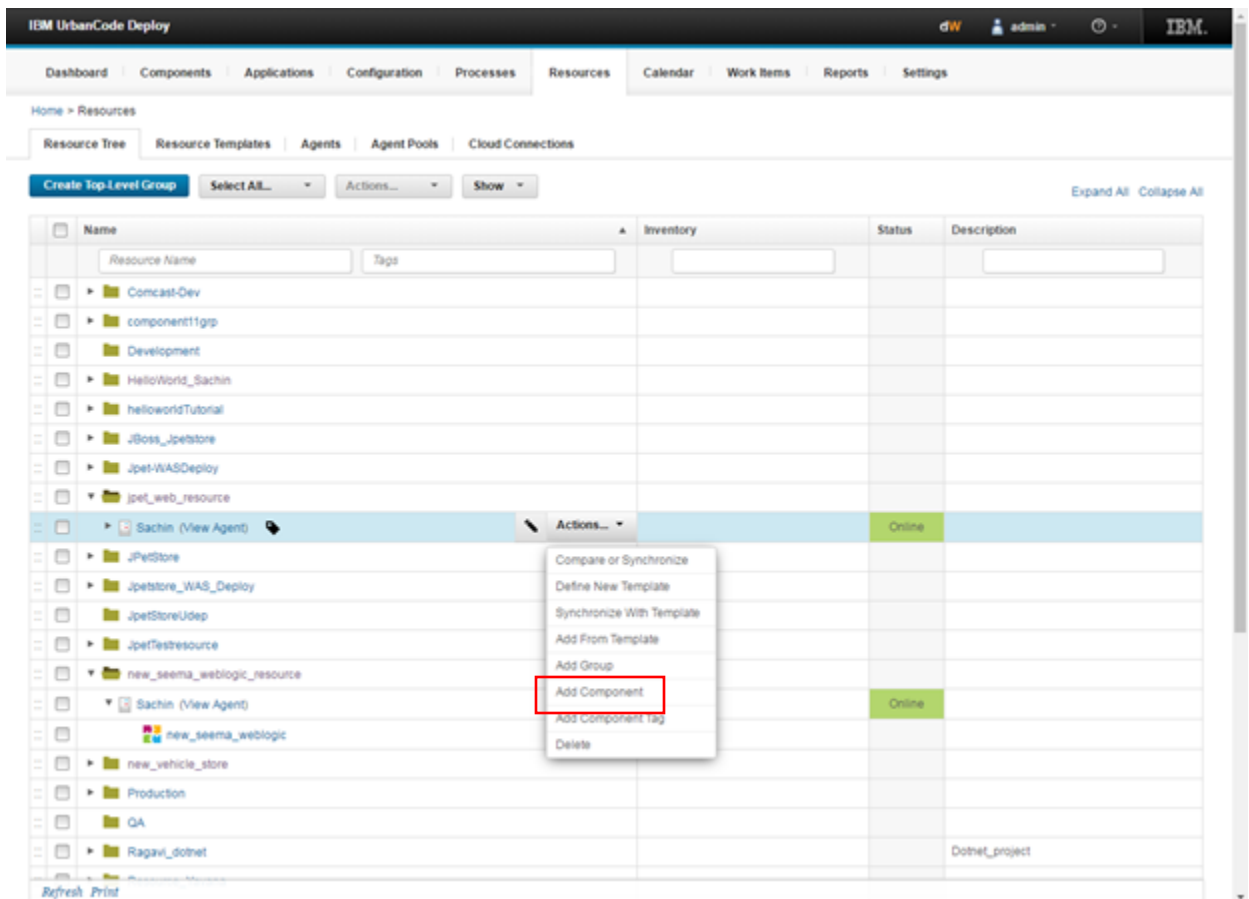
- Name ***: Deploy
- Deployment Name**: seema_jpetstore
- Admin URL ***: t3://localhost:7001
- User Name ***: Sachin
- Password ***:
- Targets**: AdminServer
- Source ***: jpetstore.war
- Deployment Classpath ***: \${p:resource/deployer-classpath}
- No Stage**:
- Library Job**:
- Additional Arguments**: (empty text area)
- Working Directory**: (empty text field)
- Post Processing Script**: Step Default (dropdown menu) with a **New** button below it.
- Precondition**: (empty text area)
- Use Impersonation**:
- Show Hidden Properties**:

At the bottom right, there are **OK** and **Cancel** buttons.

5. Go to Resources tab → Create Top Level Resource → Map the agent on which you want to run your application.



Then add the component to the agent.



IBM UrbanCode Deploy

Dashboard | Components | Applications | Configuration | Processes | Resources | Calendar | Work Items | Reports | Settings

Home > Resources

Resource Tree | Resource Templates | Agents | Agent Pools | Cloud Connections

Create Top-Level Group | Select All... | Actions... | Show

Expand All | Collapse All

Name	Inventory	Status	Description
Comcast-Dev			
component11grp			
Development			
HelloWorld_Sachin			
helloworldTutorial			
JBoss_jpetstore			
Jpet-WASDeploy			
jpet_web_resource			
Sachin (View Agent)		Online	
seema_jpet_web	2.0		
JPetStore			
Jpetstore_WAS_Deploy			
JpetStoreUdep			
JpetTestresource			
new_seema_weblogic_resource			
Sachin (View Agent)		Online	
new_seema_weblogic	1.0		
new_vehicle_store			
Production			
QA			

6. Go to applications and create an environment

Create Environment

Name * jpet_test

Description

Blueprint


Teams +

Require Approvals

Exempt Processes None

Lock Snapshots

Color



Red Violet (Light Purple)

Inherit Cleanup Settings

Save Cancel

7. Go to Processes in applications and create a new process → click on edit and complete the flowchart.

IBM UrbanCode Deploy

Dashboard | Components | Applications | Configuration | Processes | Resources | Calendar | Work Items | Reports | Settings

Home > Applications > seema_jpet_web_app

Application: seema_jpet_web_app

Created By: admin
Created On: 6/28/2016, 3:07 PM

Environments | History | Configuration | Components | Blueprints | Snapshots | Processes | Calendar | Changes

Create Process

Process	Description	Actions
jpet_app_process		Edit Duplicate Delete

1 record - Refresh Print

Rows: 10

Install the component over here (just drag the install component to this).

IBM UrbanCode Deploy

Dashboard | Components | Applications | Configuration | Processes | Resources | Calendar | Work Items | Reports | Settings

Home > Applications > seema_jpet_web_app > Processes > Process: jpet_app_process

Process: jpet_app_process

Version: 2 of 2

Design | Configuration | Inventory Changes | Changes

Step Palette

- Finish
- Install Component
- Install Multiple Components...
- Uninstall Component...
- Rollback Component...
- Run Process for Each Version...
- Run Process for Each Affected Resource...
- Apply Configuration
- Utility Steps
- Clipboard
- Configuration Discovery
- seema_jpet_web

Start

Install seema_jpet_web

Finish

8. Go to the components in the applications and add your component.

The screenshot shows the IBM UrbanCode Deploy interface. At the top, there's a navigation bar with 'Dashboard', 'Components', 'Applications', 'Configuration', 'Processes', 'Resources', 'Calendar', 'Work Items', 'Reports', and 'Settings'. Below this, the breadcrumb path is 'Home > Applications > seema_jpet_web_app'. The main heading is 'Application: seema_jpet_web_app'. Below that, it shows 'Created By: admin' and 'Created On: 6/28/2016, 3:07 PM'. A secondary navigation bar includes 'Environments', 'History', 'Configuration', 'Components', 'Blueprints', 'Snapshots', 'Processes', 'Calendar', and 'Changes'. A blue 'Add Component' button is visible. Below it is a table with columns 'Component', 'Description', and 'Actions'. The table contains one row for 'seema_jpet_web'. The 'Actions' column for this row has 'Run Process' and 'Remove' buttons. The 'Run Process' button is highlighted with a red box. At the bottom of the table, there are pagination controls showing '1 / 1' and 'Rows: 10'.

Click on **Run Process** (in versions select the appropriate version and click submit).

The screenshot shows the same IBM UrbanCode Deploy interface as above, but with a modal dialog box open. The dialog box has a close button (X) in the top right corner. It contains four dropdown menus: 'Environment' (selected: 'jpet_test'), 'Resource' (selected: '/jpet_web_resource/Sachin/seema_jpet_web'), 'Process' (selected: 'jpet_seema'), and 'Version' (selected: '2.0'). At the bottom of the dialog box are two buttons: 'Submit' and 'Cancel'.

RUN PROCESS for deployment success.

IBM UrbanCode Deploy dW admin IBM.

Dashboard Components Applications Configuration Processes Resources Calendar Work Items Reports Settings

Home > Components > seema_jpet_web > Process Request on seema_jpet_web

Deployment of Component: seema_jpet_web

Process: jpet_seema (Version 4)
Version: 2.0
Resource: seema_jpet_web
Agent: Sachin
Date: 6/28/2016, 3:33 PM
Requested By: admin

Log Properties

Execution Dock timeline at top

Start: 3:33:28 PM Progress: 2/2 Status: ● Success Duration: 0:00:57 End: 3:34:25 PM

[Download All Logs](#) [Expand All](#) [Collapse All](#)

Step	Progress	Start Time	Duration	Status
1. Download Artifacts	::	3:33:28 PM	0:00:06	■ Success
2. Deploy	::	3:33:34 PM	0:00:50	■ Success
Total Execution	2 / 2	3:33:28 PM	0:00:57	■ Success

Deployment in web logic server.

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, Sachin Connected to: base_domain

Home > Summary of Deployments > seema_jpetstore > Summary of Deployments

Summary of Deployments

Configuration Control Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain.

You can update (redeploy) or delete installed applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page.

To install a new application or module for deployment to targets in this domain, click **Install**.

Customize this table

Deployments

Showing 1 to 5 of 5 Previous Next

<input type="checkbox"/>	Name	State	Health	Type	Targets	Scope	Domain Partitions	Deployment Order
<input type="checkbox"/>	benefits	Active	OK	Web Application	AdminServer	Global		100
<input type="checkbox"/>	demo	Active	OK	Web Application	AdminServer	Global		100
<input type="checkbox"/>	FactNew	Active	OK	Web Application	AdminServer	Global		100
<input type="checkbox"/>	seema_jpetstore	Active	OK	Web Application	AdminServer	Global		100
<input type="checkbox"/>	state-management-provider-memory-rar	Active	OK	Resource Adapter	AdminServer	Global		100

Showing 1 to 5 of 5 Previous Next

WebLogic Server Version: 12.2.1.1.0
Copyright (c) 1996, 2015, Oracle and/or its affiliates. All rights reserved.
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Welcome to JPetStore 5

Enter the Store

Copyright Apache Software Foundation

Fish

Saltwater, Freshwater

Dogs

Various Breeds

Cats

Various Breeds, Exotic Varieties

Reptiles

Lizards, Turtles, Snakes

Birds

Exotic Varieties

