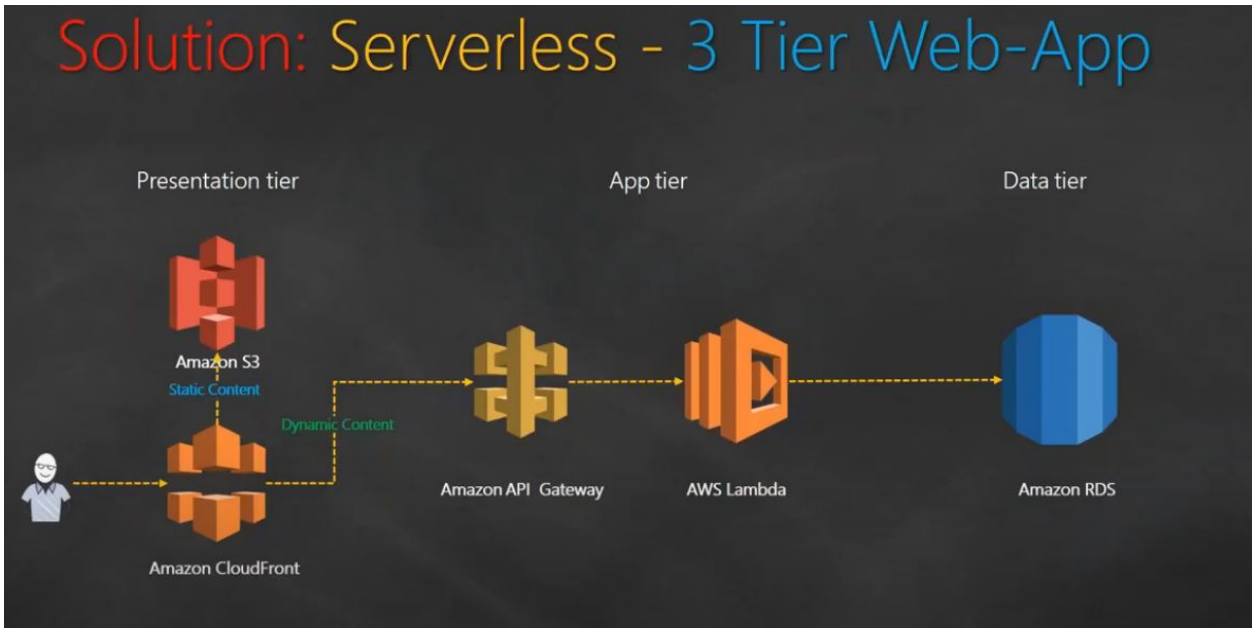
Challenge 1

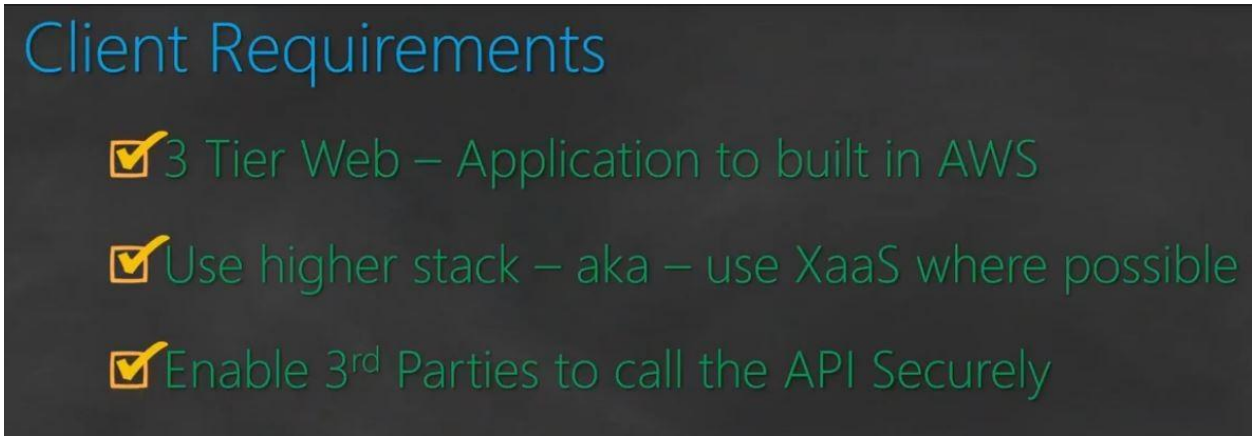
A 3 tier environment is a common setup. Use a tool of your choosing/familiarity to create these resources.

Tool - AWS Cloud Ecosystem

Using the AWS cloud ecosystem as a Tool we can create a 3 Tier environment setup.
We are going to use AWS resources like S3 Bucket, CloudFront, Amazon API Gateway, AWS Lambda & Amazon RDS to build a 3 tier system consisting of Presentation, Application & DB Tier.

Solution: Server less - 3 Tier Web - App





Reusability/Reproducibility Features are something which can be used with AWS Templates for the resources that we want to **reuse** and then save that template in an Amazon S3 bucket. Whenever we want to add those resources in another template, use the AWS::**CloudFormation**::Stack resource to specify the S3 URL of the nested template**.**

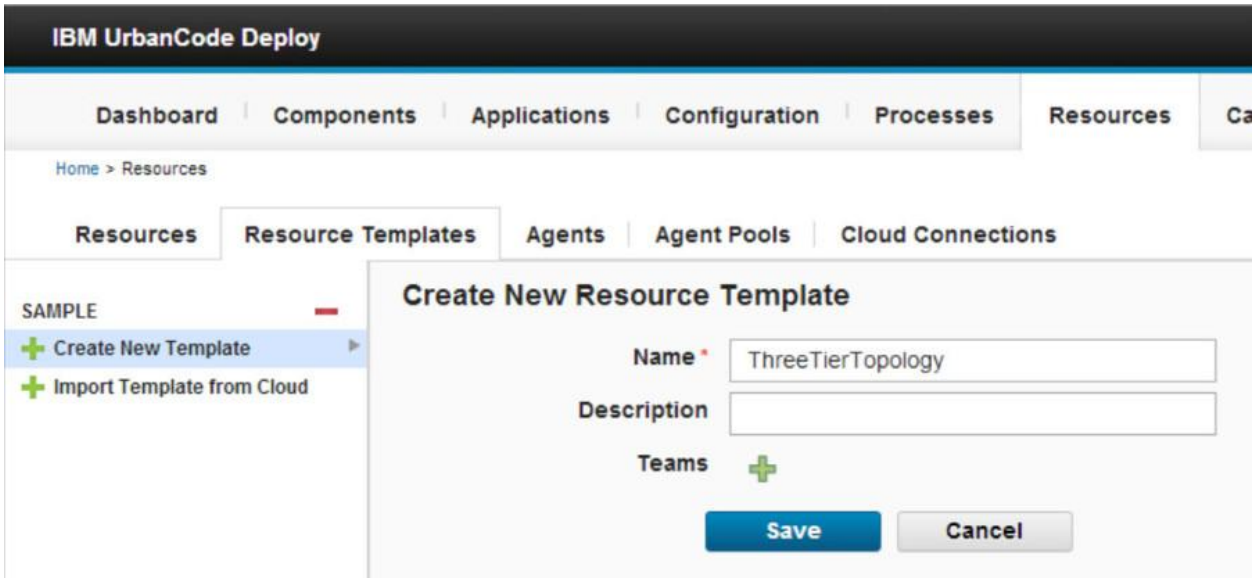
Using IBM RationalUrbancode Deploy Tool

Everything is a Resource – Resource Templates

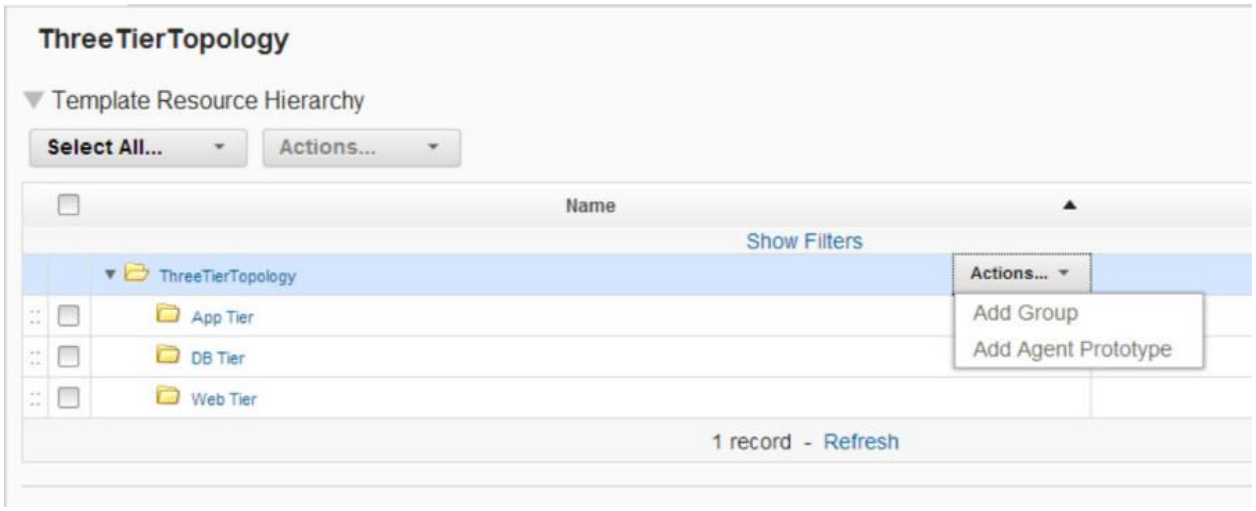
UrbanCode Deploy 6.0 introduced the concept of a resource tree. It takes some getting used to, but overall it gives a nice OPs-centric view of the landscape of things. But buried in the resource topic is the little known yet powerful concept of resource templates. Let's walk through the process of creating and using one.

Note: My examples below use UrbanCode Deploy 6.0. I am hoping things look a bit better in 6.0.1 from a user interface standpoint.

First, let's create a new template. On the Resources main tab, click on the Resource Templates sub-tab. Click the Create New Sample link. You will also notice that you can create a new resource template by connecting to a Cloud provider. This I believe was the original reason for this feature. Cloud patterns essentially define resource templates. So by connecting to a Cloud provider, UrbanCode Deploy creates a resource template from the Cloud pattern. Luckily for us, they also generalized that feature and let us create resource templates from scratch.

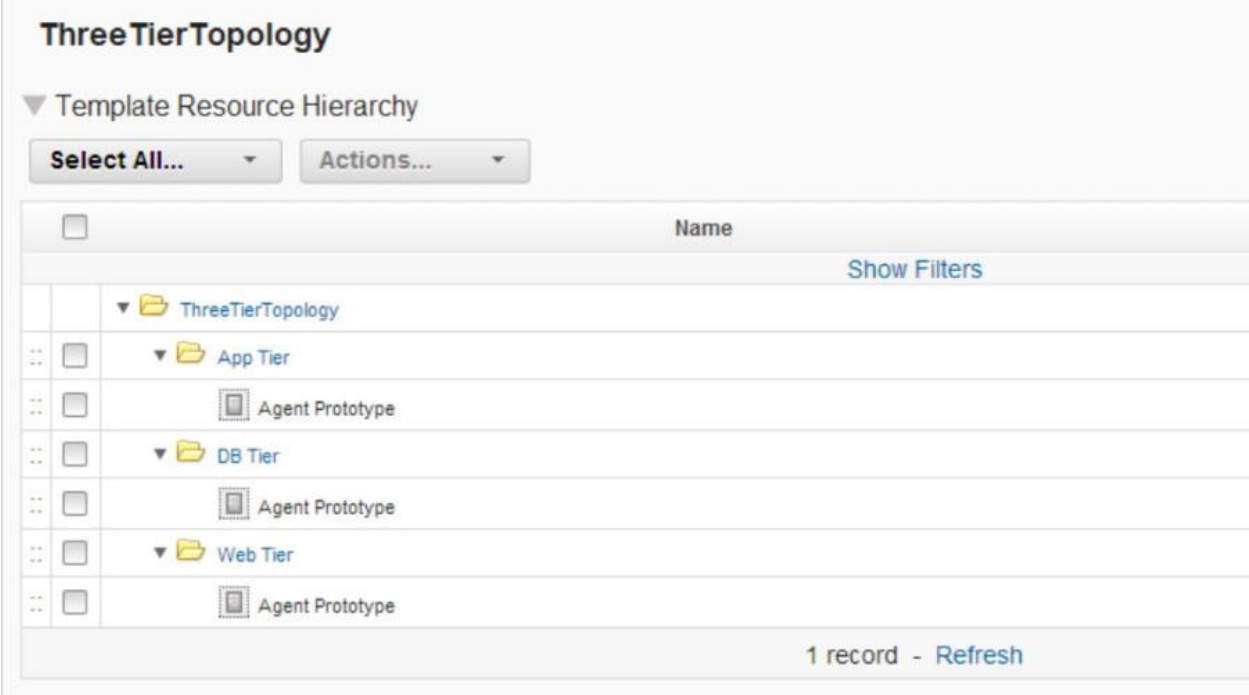


In this case, we are going to create a new 3 tier topology resource template that can be used to deploy a 3 tiered application (ok its just made up but good for an example). Once I click Save, I get to define my template. Using the Action menu on the base resource that gets created, we can create a series of sub-resources to represent the tiers.



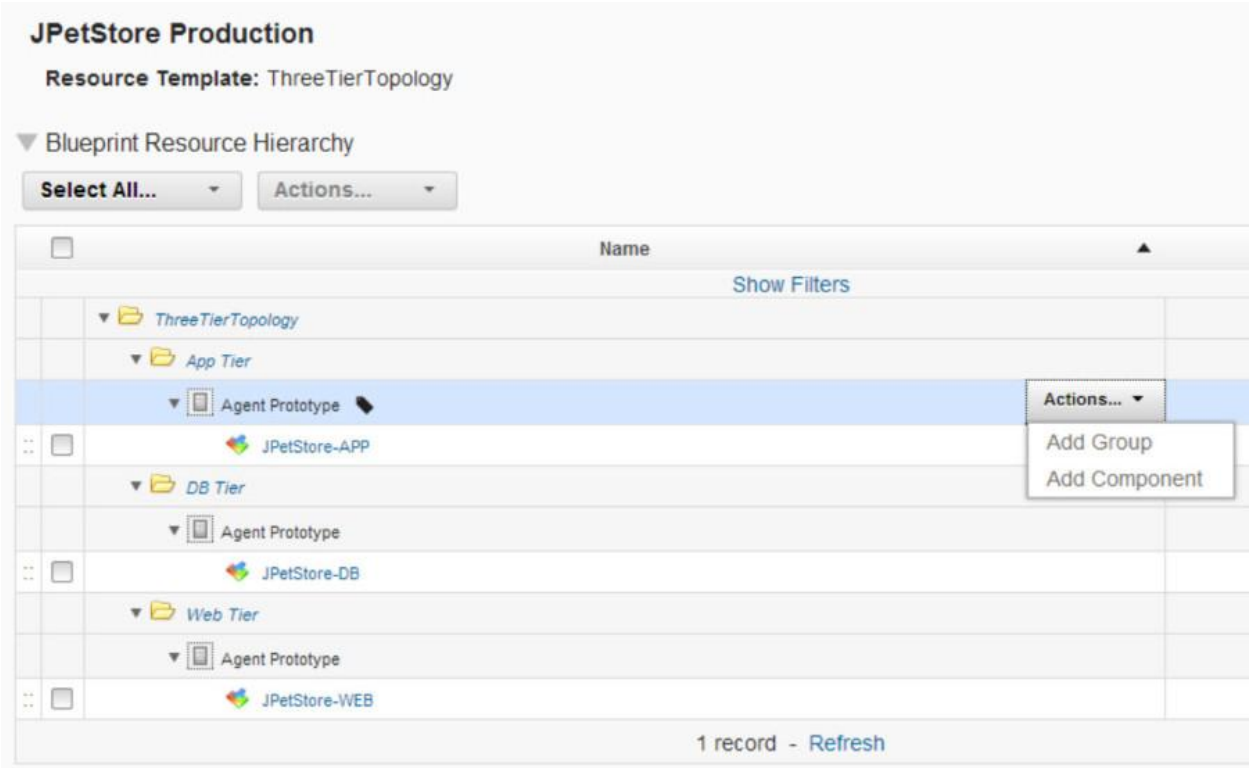
And finally, we can add Agent Prototypes to each sub-resource as placeholders for real agents.

Note: You will notice that you can add a component to an agent prototype. Why in the world would you want to do that? In the rare case where you may have some generic component that should be applied to every instance of this template, you can define it here.

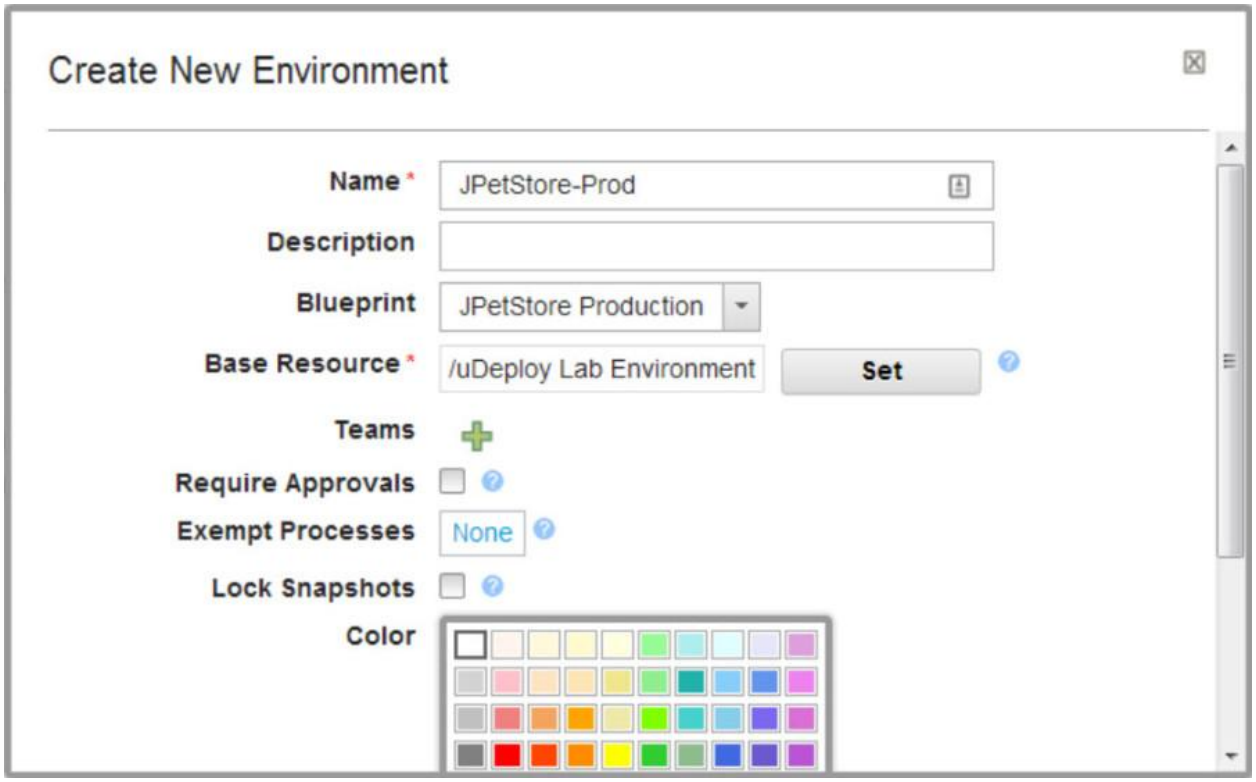


We now have our completed template. This template is now available as a basis for an application environment. But first we need to create an Application Blueprint, which inserts this application template into a location in an application's resource tree. Moving over to the Application Main tab, selecting our application (JPetStore) and finally the Blueprints sub-tab, we can create our new blueprint. During the creation process, we select the resource template that we want to use, which is the one we just created.

Once the blueprint is created, we can again use the Action menu for each agent prototype and assign the component from our application to the agent prototype. This process is now mapping our application to an existing resource template, as shown below.

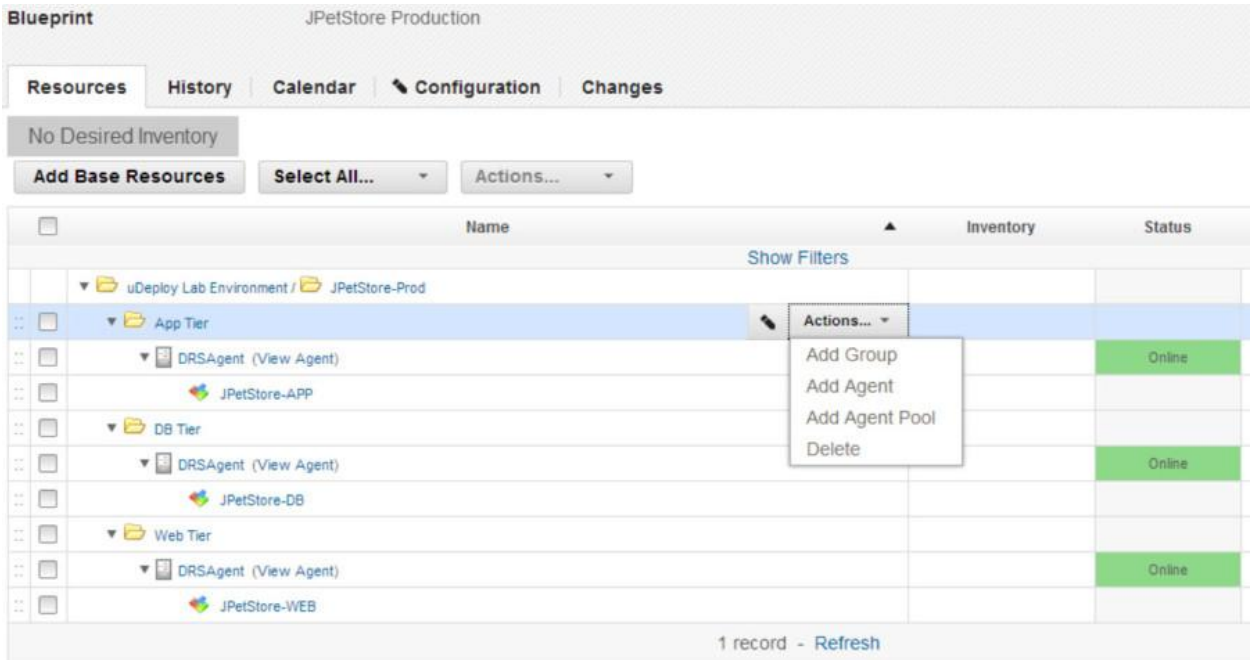


Now that we have our application mapped to the resource template in the blueprint, we can create a new application environment from the blueprint. Back to the JPetStore application environments page, we can create a new environment.



We give the environment a name, choose the blueprint we just created, and select the base resource where we want to insert this resource template. This base resource is key and depends on how you have organized your resource tree. If you organize things well, you can insert this new resource alongside the other resource nodes that define other environments for this application.

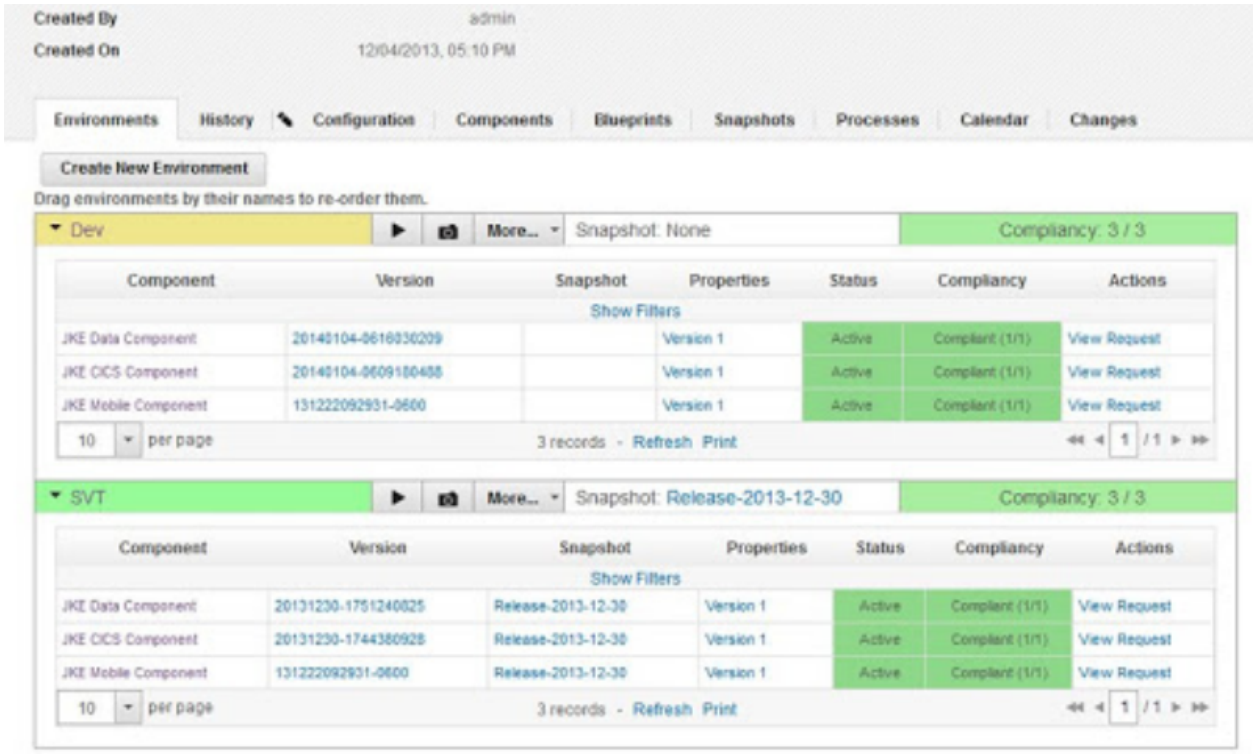
When you click save, you get an error (that is horribly named) but it helps you to know that you have a step to perform yet. We have to assign real agents to where we had agent prototypes. Click on the newly created environment and we see its resource tree. We can assign a real agent to each node in our tree using the Action menu.

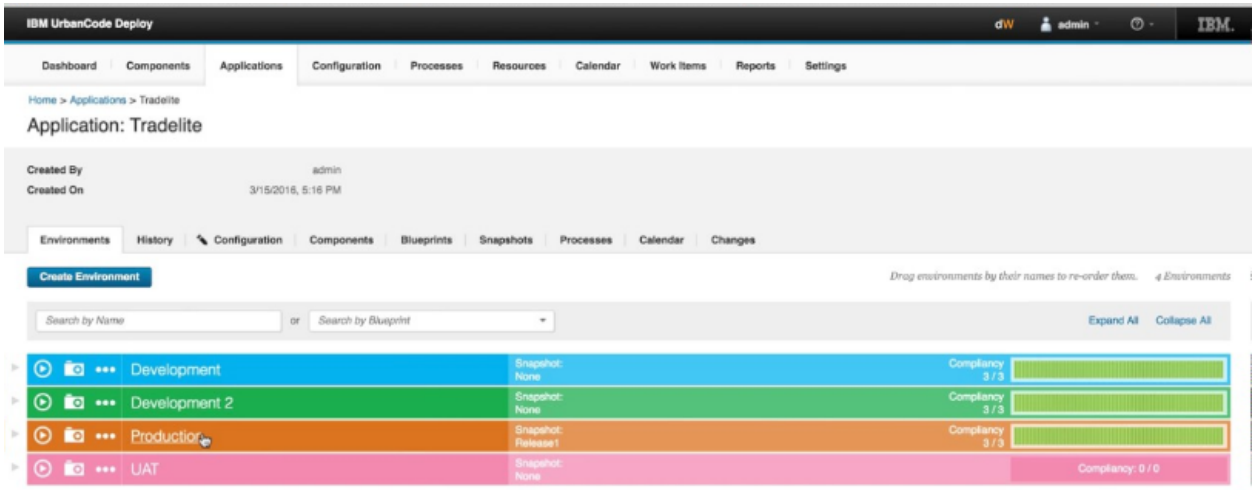


We now have a new environment with real agents assigned to our components, ready for deploy.

Here We can use a feature called Snapshots which we can reuse multiple times to create many similar environments like SIT,DEV,QA etc as under.

There is a shortcut option of Camera to be used which helps in taking snapshots of any particular environment and quickly create a copy of it.


Created By admin
Created On 12/04/2013, 05:10 PM
Environments History Configuration Components Blueprints Snapshots Processes Calendar Changes
Create New Environment
Drag environments by their names to re-order them.
Dev More... Snapshot: None Compliancy: 3 / 3
Component Version Snapshot Properties Status Compliancy Actions
Show Filters
JKE Data Component 20140104-0616030209 Version 1 Active Compliant (1/1) View Request
JKE CICS Component 20140104-0609180458 Version 1 Active Compliant (1/1) View Request
JKE Mobile Component 131222092931-0600 Version 1 Active Compliant (1/1) View Request
10 per page 3 records - Refresh Print 1 / 1
SVT More... Snapshot: Release-2013-12-30 Compliancy: 3 / 3
Component Version Snapshot Properties Status Compliancy Actions
Show Filters
JKE Data Component 20131230-1751240825 Release-2013-12-30 Version 1 Active Compliant (1/1) View Request
JKE CICS Component 20131230-1744380928 Release-2013-12-30 Version 1 Active Compliant (1/1) View Request
JKE Mobile Component 131222092931-0600 Release-2013-12-30 Version 1 Active Compliant (1/1) View Request
10 per page 3 records - Refresh Print 1 / 1


IBM UrbanCode Deploy
admin
IBM.
Dashboard Components Applications Configuration Processes Resources Calendar Work Items Reports Settings
Home > Applications > Tradelite
Application: Tradelite
Created By admin
Created On 3/15/2016, 5:16 PM
Environments History Configuration Components Blueprints Snapshots Processes Calendar Changes
Create Environment
Drag environments by their names to re-order them. 4 Environments
Search by Name or Search by Blueprint
Expand All Collapse All
Development Snapshot: None Compliancy 3 / 3
Development 2 Snapshot: None Compliancy 3 / 3
Production Snapshot: Release1 Compliancy 3 / 3
UAT Snapshot: None Compliancy: 0 / 0