

# Roles

Roles allow you to conveniently encapsulate the run lists and attributes required for a server to "be" what you already think is  
Makes it easy to configure many nodes identically without repeating yourself each time

Create role	Create "webservers.rb" under roles
	<pre>name 'webserver' description "web servers" run_list "recipe[apache2], recipe[motd]" default_attributes ({   "Team" =&gt; "testing Team" })</pre>
Ubuntu.rb	<pre>name 'ubuntu' description 'Role for all ubuntu servers' run_list 'recipe[apt]'</pre>
Upload role	knife role from file webservers.rb knife role from file ubuntu.rb

An environment is a way to map an organization's real-life workflow to what can be configured and managed when using Chef server.

Every Organization starts with a single environment

Environments reflect your patterns and workflow

- Development
- Test
- Staging
- Production
- Etc.,

Each attribute may include attributes necessary for configuring the infrastructure in the environment

- Production needs certain Yum repos
- QA needs different Yum repos
- The version of cookbook is used to

Best practice: if you want to share cookbooks or roles, you likely want an environment rather than an organization

Environments allow for isolating resources within a single organization

Creation of Environments	Create new folder "Environmets"
Create a file under Environmets with name dev.rb	name "Dev" description "Development" cookbook "apache", "=0.1.1"
Create a file "test.rb"	name "test" description "test env" cookbook "apache", "=0.1.2"
Upload the environments	Knife environment from file dev.rb knife environment from file test.rb
See list of environments	knife environment list
Update Node Attributes to change the environment from _default to "Dev"	

Creation of environment using JSON file	Example 15-1. chef-playground/environments/dev.json <pre>{   "name": "production",   "description": "For developers!",   "cookbook_versions": {     "apache": "= 0.2.0"   },   "json_class": "Chef::Environment",   "chef_type": "environment" }</pre>	
	knife environment from file dev.json	