

# Templates



# Static Files

- Inflexible
- Repetitive
- Content Explosion
- Manageability



# **Dynamically Generated Files**

**== Templates**



## **Lets see it in action..**

- We will create a template to manage the vhosts instead of static config
- This will take site\_name and site\_domain variables for each vhost and generate files dynamically.



# Vhost.conf.erb

```
$ mkdir modules/nginx/templates
```



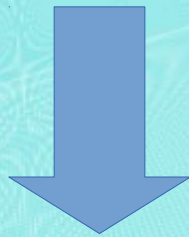
# nginx/templates/vhost.conf.erb

```
server {  
    listen 80;  
    root /var/www/<%= @site_name %>;  
    server_name <%= @site_domain %>;  
}
```



# Change file resource in configure.pp

```
file { '/etc/nginx/conf.d/default.conf':  
    source => 'puppet:///modules/nginx/cinema.conf',  
    notify => Service['nginx'],  
}
```



```
file { '/etc/nginx/conf.d/default.conf':  
    content => template('nginx/vhost.conf.erb'),  
    notify => Service['nginx'],  
}
```



## Create Webroot for the Site

Wherever there is **cinema**, change it to `${site_name}`  
Make sure to enclose the complete string containing variables in double quotes.

```
file { "/var/www/cinema":  
    ensure => directory,  
}
```



```
file { "/var/www/${site_name}":  
    ensure => directory,  
}
```



## Update file resource that servers index.html

- Modify  
/var/www/cinema/index.html  
to
- /var/www/\$  
{site\_name}/index.html

**cinema**



**\${site\_name}**

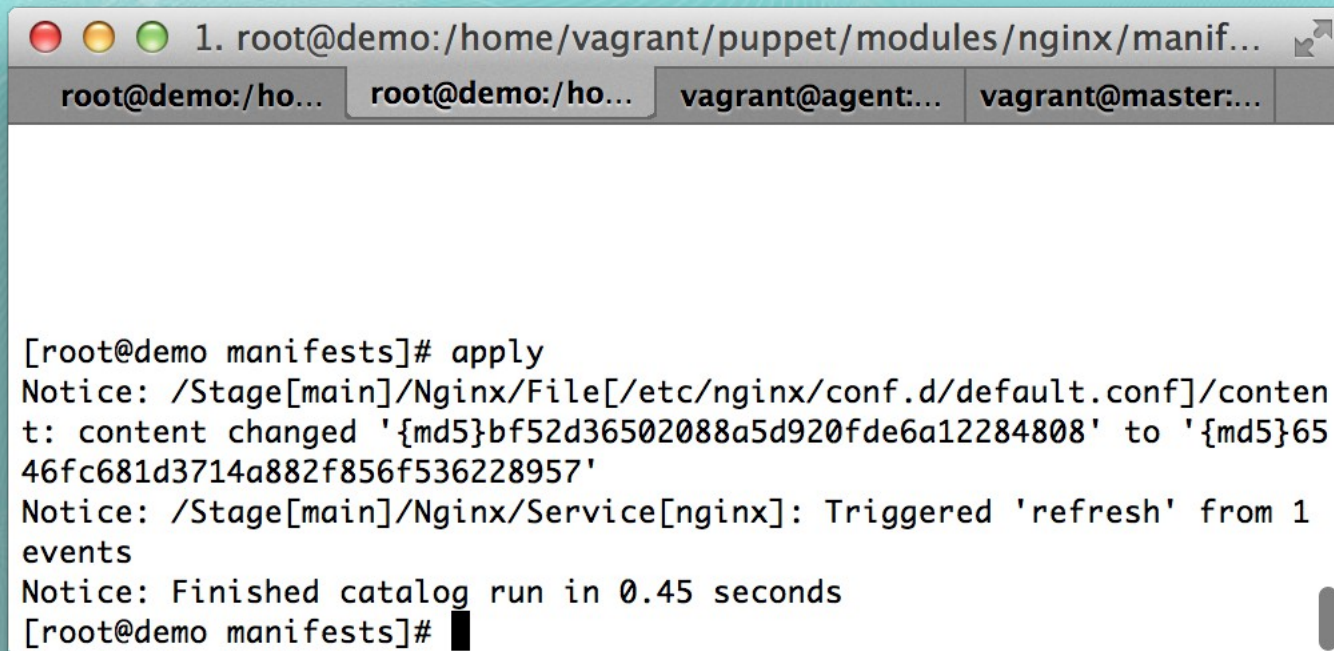


# nodes.pp

```
node 'demo' {  
    $site_name = 'bollywood'  
    $site_domain = 'bollywood.in'  
    include nginx  
}
```



```
$ puppet apply /vagrant/puppet/manifests/
```

A terminal window with a title bar showing the path '1. root@demo:/home/vagrant/puppet/modules/nginx/manif...'. The window has four tabs: 'root@demo:/ho...', 'root@demo:/ho...', 'vagrant@agent:...', and 'vagrant@master:...'. The main content area shows the output of a Puppet apply command. The prompt is '[root@demo manifests]#'. The output includes a notice about a file content change and a service refresh, followed by a completion message and a new prompt line.

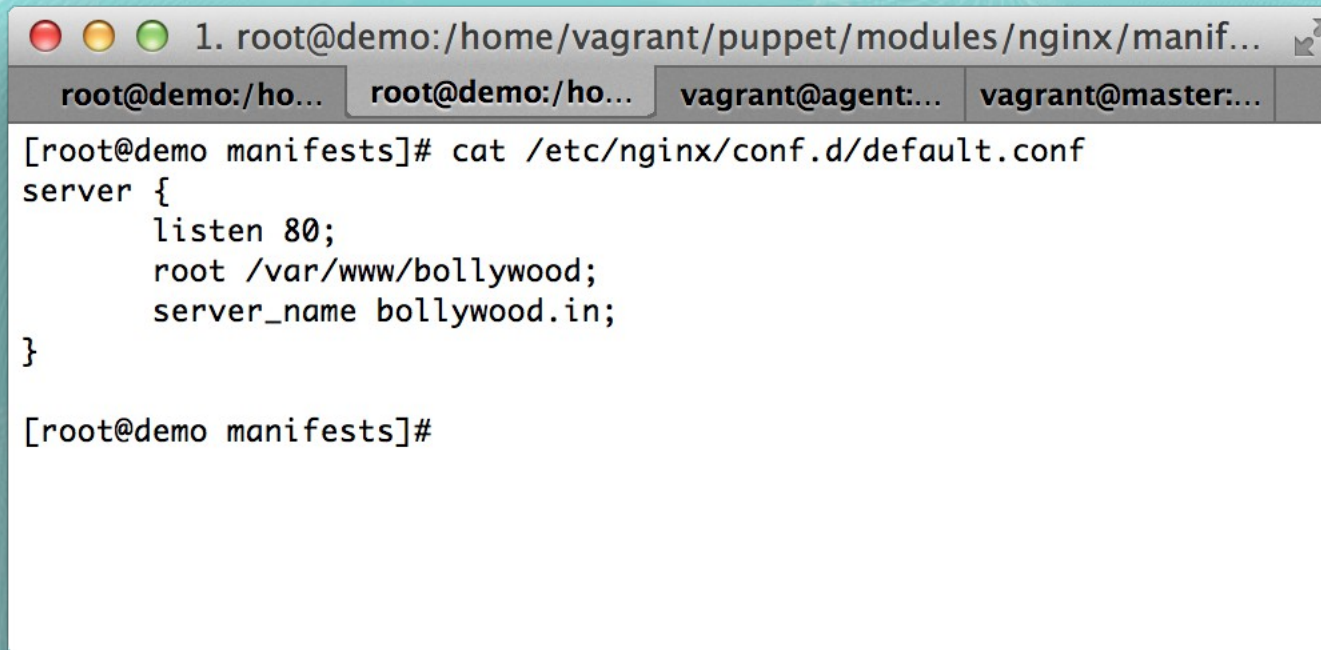
```
1. root@demo:/home/vagrant/puppet/modules/nginx/manif...
root@demo:/ho... root@demo:/ho... vagrant@agent:... vagrant@master:...

[root@demo manifests]# apply
Notice: /Stage[main]/Nginx/File[/etc/nginx/conf.d/default.conf]/content: content changed '{md5}bf52d36502088a5d920fde6a12284808' to '{md5}6546fc681d3714a882f856f536228957'
Notice: /Stage[main]/Nginx/Service[nginx]: Triggered 'refresh' from 1 events
Notice: Finished catalog run in 0.45 seconds
[root@demo manifests]#
```



# Validate

\$ cat /etc/nginx/conf.d/default.conf



```
1. root@demo:/home/vagrant/puppet/modules/nginx/manif...
root@demo:/ho... root@demo:/ho... vagrant@agent:... vagrant@master:...
[root@demo manifests]# cat /etc/nginx/conf.d/default.conf
server {
    listen 80;
    root /var/www/bollywood;
    server_name bollywood.in;
}

[root@demo manifests]#
```



# Dynamic Configurations

Now that we have template, we could drive configs using parameters alone.

```
node 'demo2' {  
    $site_name = 'kollywood'  
    $site_domain = 'kollywood.in'  
    include nginx  
}
```



# Facts in Templates

Facts can be used just like variables inside templates.

Whats even better is you dont need to define values for the facts ! Those are automatic.



# ERB

- Stands for Embedded Ruby
- We are embedding ruby into the text files.

Lets now look at the ERB Tags that we have added to the template.



# ERB

- ERB is a common ruby based template language
- Looks similar to normal config files
- Contains occasional tags `<% %>`

.



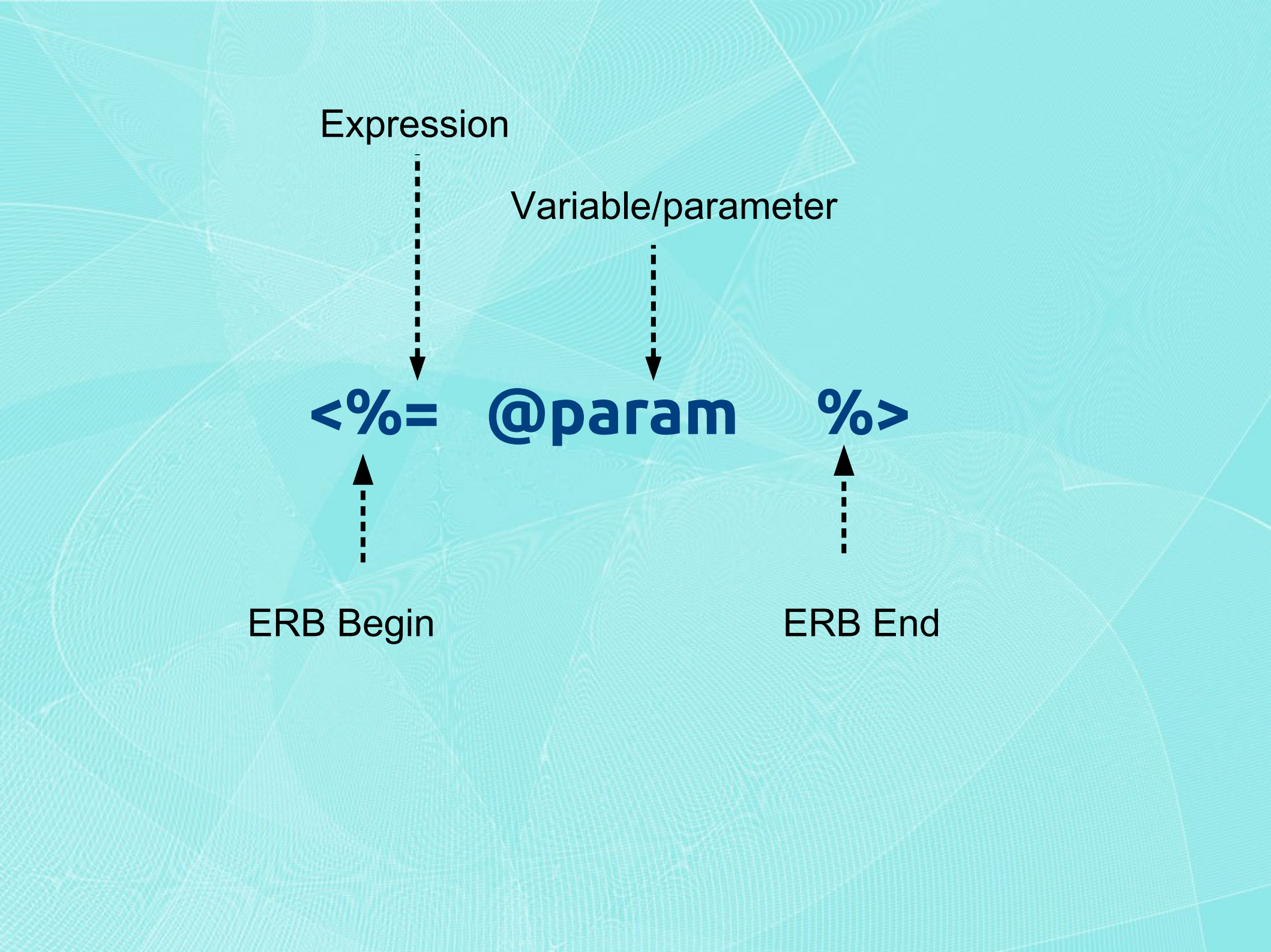
Expression

Variable/parameter

**<%= @param %>**

ERB Begin

ERB End





# Expression

`<%= expression %>`

Print the value of the expression e.g.  
variables/facts.



# Code

```
<% Ruby code %>
```

Execute the code, but do not print the value



`<% Ruby code -%>`



Suppress blank lines



# Exercise

Extend the nginx module by templating index.html and include some facts, erb logic etc.



# Exercise

## Templatize

index.html which will display the following,

- IP Address
- Operating System
- System Memory

## Steps

- Create index.html.erb
- Add ERB Logic
- Update file resource to use template



# Validate

- Edit /etc/hosts and add an alias “**bollywood.in**” to 127.0.0.1 or 127.0.0.2

Run the following command to validate your changes

```
# curl bollywood.in
```