



TEMPLATES

TOPICS



- **static vs dynamic files**
- **templates**
- **ERB Syntax**

STATIC FILE

dev

server.dev.xml



memory = 128mb

port = 8081

stage

server.stg.xml



memory = 4gb

port = 8888

prod

server.prod.xml



memory = 16gb

port = 8080

TEMPLATE

server.xml.erb



module



node



hiera



server.xml

```
memory = <%= @memory %>
```

```
port = <%= @port %>
```

ERB

ERB = EMBEDDED RUBY

ERUBIS



- Contains text with dynamic ruby code
- uses tags to mark dynamic code

ERB TAGS

<%=

%>

<%

%>



GROUP EXERCISE

TEMPLATIZE TOMCAT CONFIGS

STEPS

1. Create a Template
2. Define Parameters
3. Update file resource
to use template
function

*“ we always start with the original configs.
Good point to start with s copy over the
original config as is and start converting it
into a template by replacing parameter values*

Create file structure to store the templates

- Create a director modules/tomcat/templates
- Create a ERB template at
modules/tomcat/templates/tomcat.conf.erb
- Copy over the contents of the original
tomcat.conf. You could use the link below as
a sample content

<https://gist.github.com/initcron/01f8554fba3305a1bceee9df5ff0aa24>



GROUP EXERCISE

file: modules/tomcat/templates/tomcat.conf.erb

```
TOMCAT_CFG_LOADED="1"

JAVA_HOME="/usr/lib/jvm/jre"
JAVA_OPTS="-Xms64m -Xmx128m -XX:MaxPermSize=128M -Djava.security.

CATALINA_BASE="/usr/share/tomcat"
CATALINA_HOME="/usr/share/tomcat"
JASPER_HOME="/usr/share/tomcat"
CATALINA_TMPDIR="/var/cache/tomcat/temp"


TOMCAT_USER="tomcat"

SECURITY_MANAGER="false"

SHUTDOWN_WAIT="30"

SHUTDOWN_VERBOSE="false"

CATALINA_PID="/var/run/tomcat.pid"
```

```
TOMCAT_USER="tomcat"  
SHUTDOWN_WAIT="30"
```

becomes

```
TOMCAT_USER("<%= @user %>")  
SHUTDOWN_WAIT("<%= @shutdown_wait %>")
```

params.pp

```
$shutdown_wait = 30
```

TEMPLATIZE

- start replacing the values with template variables
- template variables are enclosed in the marker tags
- define the sane defaults in tomcat::params class



PRO TIP

TIP : Its always useful to define the params first in `params.pp` before replacing the values in the template with ERB tags. That way, you would not have to go figure what were the default values, as once replaces, those values are gone. Its also easir to just copy over the params back as template variables.



EXERCISE

EXERCISE

Update the following properties in `tomcat.conf` in the template, and define the defaults in `params.pp`

- `TOMCAT_CFG_LOADED`
- `JAVA_HOME`
- `xms`
- `xmx`
- `maxpermsize`
- `CATALINA_BASE`
- `JASPER_HOME`
- `CATALINA_TMPDIR`
- `SECURITY_MANAGER`
- `SHUTDOWN_VERBOSE`
- `CATALINA_PID`



SOLUTION

file: modules/tomcat/templates/tomcat.conf.erb

```
TOMCAT_CFG_LOADED=<%= @tomcat_cfg_loaded %>

JAVA_HOME=<%= @java_home %>
JAVA_OPTS="-Xms<%= @xms %> -Xmx<%= @mx %> -XX:MaxPermSize=<%= @r

CATALINA_BASE=<%= @catalina_base %>
CATALINA_HOME=<%= @catalina_home %>
JASPER_HOME=<%= @jasper_home %>
CATALINA_TMPDIR=<%= @catalina_tmpdir %>

TOMCAT_USER=<%= @user %>

SECURITY_MANAGER=<%= @security_manager %>

SHUTDOWN_WAIT=<%= @shutdown_wait %>

SHUTDOWN_VERBOSE=<%= @shutdown_verbose %>
```



SOLUTION

tomcat::params class

```
class tomcat::params {  
  
    $color = 'white'  
    $car    = 'figo'  
    $user   = 'tomcat'  
    $group  = 'tomcat'  
    $config_path = '/etc/tomcat/tomcat.conf'  
    $packages = [ 'tomcat', 'tomcat-webapps' ]  
    $service_name = 'tomcat'  
    $service_state = running  
    $tomcat_cfg_loaded = "1"  
    $java_home = "/usr/lib/jvm/jre"  
    $xms = "64m"  
    $xmx = "128m"  
    $maxpermsize = "128M"  
    $java_opts = " -Djava.security.egd=file:/dev/./urandom"  
    $catalina_base = "/usr/share/tomcat"  
    $catalina_home = "/usr/share/tomcat"  
    $jasper_home = "/usr/share/tomcat"  
    $catalina_tmpdir = "/var/cache/tomcat/temp"  
    $security_manager = "false"
```



GROUP EXERCISE

update file:

modules/tomcat/manifests/config.pp

FROM

```
source => 'puppet:///modules/tomcat/tomcat.conf',
```

TO

```
content => template('tomcat/tomcat.conf.erb'),
```




GROUP EXERCISE

file: modules/tomcat/manifests/config.pp

```
class tomcat::config inherits tomcat{

  file { $::tomcat::config_path:
    #source      => 'puppet:///modules/tomcat/tomcat.conf',
    content      => template('tomcat/tomcat.conf.erb'),
    owner        => $::tomcat::user,
    group        => $::tomcat::group,
    mode         => '0644',
    notify       => Service['tomcat']
  }

}
```



GROUP EXERCISE

APPLY