

# Lab 6. Creating multiple environments

We're now going to change our architecture. Previously we set up and monitored a webserver and a database minion. Now we're going to create two environments, a *dev* and a *qa* environment that we will be controlling with Saltstack.

## Before we start

We will need to change the name of our minions. Currently the minions are using the nomenclature:

```
<servername>-s<sid>.
```

We'll change this to `<dev|qa>-<servername>-s<sid>`

To do this, you will need to do several things:

1. Change the minion id in `/etc/salt/minion_id`
2. Restart the minion
3. Delete the original key on the salt master for that minion
4. Accept the new key for the changed minion.

## Starting the Lab.

First, you will need to change the `/etc/salt/master` file and create two new directory entries `/srv/salt/dev` and `/srv/salt/qa` under the `file_roots:` directive.

Next, create the two directories `/srv/salt/dev` and `/srv/salt/qa`

Create a `top.sls` file for each one of those. Put in a `dev` or a `qa` id for each respective `top.sls` file

Now, we're going to create a new pillar.

Make a directory `/srv/salt/pillar`.

We will create two files in each, a `top.sls` file and a `systems_env.sls` pillar.

Don't be confused by the `.sls` extension. These aren't states, they're pillars that contain static information.

The `top.sls` file will simply contain three lines:

```
base:
```

```
  '*':
```

```
    - system_envs
```

Your system env will contain two pillars: dev\_systems and qa\_systems. Each will be a list that contains three entries:

```
<dev|qa>-webserver-s<#>
```

```
<dev|qa>dbserver-s<#>
```

```
<dev|qa>-midserver-s<#>
```

Your dev and qa top.sls files will need to contain some Jinja code that does the following:

1. Iterate over the correct pillar
2. If the servername contains 'web', run the apache state.
3. if the server name contains 'postgres', run the postgres formula.