**Automation of NGINX and PostgreSQL using Chef**

**Introduction:**

This document contains the installation of Ruby/RVM, Nginx and PostgreSQL .Post installation, have automated the configuration and deployment of Nginx, creation of user and database in Postgresql. Using Chef-solo, one can automate the Software installation &configuration tool by executing the cookbooks [PostgreSQL, Nginx].

**Pre-requisites:**

- Ubuntu-14.04

- Chef

- RVM/Ruby/Rails

- PostgreSQL

- NGINX

**List of Cookbooks:**

* **PostgreSQL :** Includes the recipes for TRA and RV dependent binaries installations and

Clean up scripts passed as part of installation process.

* **Nginx**  : Includes the recipes of installation of postgreSQL ,create the user and

Database using postgresql commands.

**Run\_list in Chef-solo**:

* Install the chef-client in Ubuntu .Post install chef-client ,creating the solo.rb contains the cookbook path and the solo.json file as below containing the order of execution ,

Run\_list solo.json json file:

{

"run\_list": [ "recipe [postgresql]", “recipe[nginx]” ]

}

**Run the Chef Cookbook:**

**/usr/bin/chef-solo -c solo.rb -j solo.json.**

Once run the cookbook, one can automated the installation and configuration of nginx & postgresql in Ubuntu server.

**Challenges Faced:**

* [Rails: rake db:create:all fails to connect to PostgreSQL database](http://stackoverflow.com/questions/10263821/rails-rake-dbcreateall-fails-to-connect-to-postgresql-database).
* For creating the rails application, have tried the database creation in PostgreSQL.At that point, have faced the issue as “[Rails: rake db: create:all fails to connect to PostgreSQL database](http://stackoverflow.com/questions/10263821/rails-rake-dbcreateall-fails-to-connect-to-postgresql-database)”. By changing the database.yml file and giving the database details created, have resolved the issues.
* Challenges faced during the automation of creating database and user in postgreSQL cookbook.
* Issues facing in openstreetmap application deployment on nginx server. Not known the exact index files to map the endpoint in nginx.conf file. As of now, deployed the sample webpage in nginx server and trying to resolve.