# **Ansible Syntactic Sugar ("a2s")**

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a2s is a non-official Syntactic Sugar for Ansible, which without extensions already is an "Simple, agentless IT automation that anyone can use".

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# CHAPTER 1

Installation

If you are new to Ansible, we recommend read our Installation guides. TL;DR:

# "a2s is installable as an Ansible role and is distributed over Ansible Galaxy ansible-galaxy install fititnt.syntactic\_sugar

# CHAPTER 2

Quickstart

And then, look at our Ansible Syntactic Sugar APIs and a2s Example Playbooks. TL;DR:

## Listing 1: playbook-basic.yml

```
# TODO: improve this quickstart example (fititnt, 2020-01-17 01:11 BRT)
   # $ ansible-playbook -i myserver.com, playbook-basic.yml
2
   - hosts: all
     remote_user: root
     vars:
6
7
       # Create operational system group (if already does not exist)
8
       a2s_groups:
9
         - name: 'www-data'
10
11
12
       # Create operational system users
       a2s_users:
13
          - name: app
14
           groups: ['www-data']
15
       # Create/delete directories
17
       a2s_directories:
18
          - path: /var/www/my-app
19
           owner: app
20
           group: www-data
21
         - path: /var/www/my-old-app-folder-to-delete
22
           state: absent
23
24
       # Install PHP with packages that allow run popular softwares like
25
        # Drupal, Joomla, Wordpress & Laravel
26
       a2s_install_php:
27
          - php7.4-fpm
28
         - php7.4-common
29
         - php7.4-mbstring
```

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```
- php7.4-mysql
31
          - php7.4-bcmath
32
          - php7.4-curl
33
          - php7.4-gd
34
          - php7.4-xml
35
          - php-imagick
36
37
        # Uncomment next variable only for Windows hosts.
38
        # a2s_iswindows: true
39
     roles:
40
        - { role: fititnt.syntactic_sugar }
```

But playbook-basic.yml, while may help you to undestand a2s (or even Ansible) may be less powerfull than a2s offer. One tricky that a2s uses to avoid be too optionated on defaults is simply create an equivalent to most a2s\_APINAME as a2s\_APINAME definitions:

Listing 2: playbook.yml

```
# TODO: improve this quickstart example (fititnt, 2020-01-17 01:11 BRT)
   # $ ansible-playbook -i myserver.com, playbook.yml
2
   - hosts: all
4
     remote_user: root
6
     vars:
        # Create operational system group (if already does not exist)
       a2s_groups:
          - name: 'www-data'
10
11
        # Create operational system users (with some defaults)
12
       a2s_users_defaults:
13
          groups: ['www-data']
15
       a2s_users:
16
          - name: app
17
          - name: drupal-site
18
          - name: joomla-site
19
          - name: laravel-site
20
          - name: wordpress-site
21
          - name: fititnt
22
            authorized_keys:
23
              - key: https://github.com/fititnt.keys
24
25
        # Create folders (with some defaults)
26
        # "{{ item.myspecialvar }}" is an example of valid default
27
       a2s_directories_defauts:
28
         path: "/var/www/{{ item.myspecialvar }}"
29
         owner: "{{ item.myspecialvar }}"
30
         group: www-data
31
         mode: '0755'
32
          state: present
33
34
       a2s_directories:
35
          - path: /var/www/my-app
36
            owner: app
37
          - path: /var/www/my-old-app-folder-to-delete
```

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```
state: absent
39
         - myspecialvar: "drupal-site"
40
         - myspecialvar: "joomla-site"
41
         - myspecialvar: "laravel-site"
42
         - myspecialvar: "wordpress-site"
45
       # Install PHP with packages that allow run popular softwares like
46
       # Drupal, Joomla, Wordpress & Laravel
47
       a2s_install_php: "{{ a2s_php74 }}"
48
       # Uncomment next variable only for Windows hosts.
51
       # a2s_iswindows: true
     roles:
52
       - { role: fititnt.syntactic_sugar }
```

**Important:** a2s by design have to explicitly choose not respect some specific Ansible best practices related to large scale projects to allow implement more even more concise Infrastructure As Code. An notable anti-pattern is a2s allowing you bootstrap some features that would be better be done to additional Asible Role with a2s\_templates.

a2s by design may implement implement features that would never be accepted on the Ansible standard modules because would be redundant with more lines of code or would be better implemented by external extensions.

We may explicitly warn you in some cases, and even help you on how to migrate from a2s to more enterprise approach. We by default namespace our rules using a2s\_ to make it easier.

## Dedicated to the public domain

The a2s codebase is dedicated to public domain to estimulate your creativity and allow sub parts of a2s be reused freely.

# 2.1 Quickstart

**Warning:** This page is a draft.

```
Table of Contents of APIs
```

- Quickstart
  - New to Ansible
  - a2s step by step
    - \* Topico 1
    - \* Topico 2

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# 2.1.1 New to Ansible

• https://www.ansible.com/resources/videos/quick-start-video

# 2.1.2 a2s step by step

## Topico 1

Listing 3: todo.yml

# TODO...

# Topico 2

Listing 4: todo2.yml

# TODO...

# 2.2 Why a2s may be useful for you

Warning: a2s still an apha release. This page is not complete.

### **Table of Contents of APIs**

- Why a2s may be useful for you
  - Who are likely to NOT need a2s
    - \* Who don't need to deploy changes on servers
    - \* Who don't need (and do not want learn) how to automate IT
  - I'm new to IT automation
    - st Ansible is a friendly IT automation tool
  - I'm new to Ansible
    - \* a2s as jack of all trades Ansible Role
    - \* a2s have great examples of common tasks
  - I'm a experienced Ansible user
    - \* a2s only when you have no better option
    - \* a2s...
  - I'm a Ansible extensions developer
    - \* a2s is dedicated to public domain
    - \* a2s...

# 2.2.1 Who are likely to NOT need a2s

### Who don't need to deploy changes on servers

**Warning:** This pages assumes that you or already work or want to learn how to automate IT and already have some experience on how to do without automation. A great example if you are someone who would be able implement alone (ok use help of search engines) tutorials like How To Install WordPress with LAMP on Ubuntu 18.04 but now want to abstract/automate this.

If you already use software that someone else configure the operational system for you, it's very likely that **at this moment** a2s may not be useful.

#### Who don't need (and do not want learn) how to automate IT

Ansible can be used even for who does not work as sysadmin, DevOps or IT infrastructure in general and, compared to alternatives, may actually save your time even if you don't work full time on a position that benefits from automation.

> TODO: comment more about (fititnt, 2020-01-21 02:53 BRT)

#### 2.2.2 I'm new to IT automation

> TODO: comment more about (fititnt, 2020-01-21 01:26 BRT)

## Ansible is a friendly IT automation tool

"It turned out our group of 15 or so people spent about six months trying to automate OpenStack with Puppet, and I spent a lot of time banging my head into a desk. (Later, once AnsibleWorks was founded, one of our Solutions Architects built content to automate OpenStack, similar in scale, in a single week, by himself!)"

-Michael DeHaan - In The origins of Ansible

#### 2.2.3 I'm new to Ansible

**Tip:** Even if you are very skilled, know some basic automation ("bash history", docker, etc or even Chef/Puppet/Saltstack) **but are in a hurry to implement an infrastructure in production** (think like have just a 2~5 days), in special if this infrastructure it not simple (could be replaced later if you on a code refactoring), dont use a2s.

Ok, you can use, but a2s starting point. a2s can make some implementations simpler, in ones related to filesystem and users/groups manangement.

But in a very short time to learn both Ansible and implement something complex like (here just as example) clusters of FreeIPA, GlusterFS & Galera Cluster (MariaDB/MySQL) you may find ready to use Ansible Roles *near plug and play*. Check out https://galaxy.ansible.com/.

a2s as jack of all trades Ansible Role

a2s have great examples of common tasks

# 2.2.4 I'm a experienced Ansible user

a2s only when you have no better option

a2s...

# 2.2.5 I'm a Ansible extensions developer

#### a2s is dedicated to public domain

In short: while atribution is welcome from ansible users (most because it may help to find documentation) you as open source contributor is free to take take parts of a2s source code without mention.

a2s...

# 2.3 Installation guides

```
# Too long didn't read:
# "a2s is installable as an Ansible role and is distributed over Ansible Galaxy
ansible-galaxy install fititnt.syntactic_sugar
```

**a2s** extends **Ansible**. Ansible uses **Python** on the "control node" (for example your notebook running Linux, Mac or Windows via WSL) to control remote machines over **SSH** (these machines could be Windows, Linux, BSD, Raspbery Pi, your home router, etc).

Both **a2s** and Ansible does not require to be installed on controlled nodes, but they require that the control node can be acessed over SSH and have any version of Python installed (even older Python 2 would work fine, the versions installed on control node are more important).

# 2.3.1 Python

**Note:** Maybe you already have Python installed on your system. And even if you don't have maybe by installing Ansible your package mananger will install python for you.

**Tip:** If you system already does not have python installed, but you could choose between python 2 or python 3, **please select python 3**. Ansible actually can work on python 2, but it's older.

Since you already is installing python 3, if some guide guide explain how to install pip3, its may be a good idea do it. Neither Ansible or a2s require pip eventually you may want to install pip and acidentaly install pip for python 2 instead of pip3 because most guides may teach you do with the older one.

You can check how to install python via the official Python documentation. But maybe is easier to just look on your prefered search engine for "how to install python 3 on *name of my operational system*",

# 2.3.2 Ansible

Note: TODO: we should document some basic explanation on how to install Ansible

Check the complete guide on how to install Ansible.

# 2.3.3 Ansible Galaxy

Note: TODO: we should document some basic explanation on how to install Ansible Galaxy

# 2.3.4 Ansible Syntactic Sugar ("a2s")

a2s is installable as one Ansible role. You can install the lastest version with the command:

```
ansible-galaxy install fititnt.syntactic_sugar
```

Note: Ansible roles does not automatic update without you explicitly force this. This behavior may actually not be a bad default behavior.

# 2.4 Philosophy

**Note:** a2s still a pre-release. But a TL;DR: to explain the idea behind is "'a2s' be to Ansible what jQuery is to JavaScript". So it means:

- a2s still YAML and still Ansible.
  - It should not require Python knowledge for one averange Pull Request with a new feature.
  - Ideally should be easy to reuse parts of this code by others.
- a2s "most common data structure" is a List "of something" to be executed in order
  - If "this something" is an abstraction to an Ansible Module
    - \* The name should be plural form
    - \* The same way Ansible modules may implement parameter aliases (e.g. file\_module have dest and name as aliases for path), a2s may implement entire API aliases (e.g a2s\_directories, a2s\_links are alises to file\_module).
    - \* We point to the official documentation instead of repeating all options, and (if any) document what a2s add to the underlining API.
    - \* if uses more than one API, both documentation and execution should mention.
  - If "this something" is a very customized implementation, it should explain all options. And very likely warn the user if is an API that could be changed on a next major version
- a2s should be "be otimized for humans" and simpler usages.
  - It does not means that more than simpler usages cannot be otimized, but they may require read more documentation, in special ones related on how to run just part of the a2s per play run.

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- What may be more complex than simple to medium implementation is out of scope and we recommend users to use dedicated Ansible roles.
- a2s should be namespaced to avoid conflict with Ansible underling modules, with other Ansible Roles and maybe even with more than one version of itself (or someone elses fork) installed.
  - How this could be done, we're open to ideas.
  - a2s should respect SemVer and may have major versions more often than most averange software.

#### 2.4.1 Overview of a2s APIs

a2s, released as Ansible role, when not restricted with special variables, will convert the instructions of your Ansible inventory defined on variables started with a2s\_.

With some exceptions, most of the time, you can expect that:

#### Naming

- a2s\_APINAMEs that end with letter s accept a list of values, all the others may accept a single value, that may be a string, boolean or a dictionaly (e.g. an "object" like { key: 'valye', key2: 'value2 })

#### Standard APIs reuse same Ansible documentation

- If you know that the APINAME on an a2s\_APINAME(s) is have and exact Ansible core module, this a2s API will implement the same parameters from the official API
- a2s by default will ignore instead of fail if a param that does not exist on the underlinging Ansible module was defined. Please pay attention to wrong parameters names.

#### • Idempotent by default

- Using a2s will have at least the same idempotency of the Ansible underlining modules (which already is very good)
- "An operation is idempotent if the result of performing it once is exactly the same as the result of performing it repeatedly without any intervening actions. Ansible Glossary for idempotency

# 2.4.2 Antipatterns of a2s

Note: Undocumented at this moment.

# 2.5 Ansible Syntactic Sugar APIs

**Warning:** a2s still an apha release. This page is not complete.

#### Table of Contents of APIs

• Ansible Syntactic Sugar APIs

#### - Standard APIs

- \* a2s\_copies
- \* a2s\_crons
- \* a2s\_directories
- \* a2s\_etchosts
- \* a2s\_fetches
- \* a2s\_files
- \* a2s\_groups
- \* a2s\_hostname
- \* a2s\_mysql\_dbs
- \* a2s\_mysql\_users
- \* a2s\_templates
- \* a2s\_users
- \* a2s\_users[n]authorized\_keys

#### - Extra APIs

- \* a2s\_install\_adminer
- \* a2s\_rclone
- Devel APIs
  - \* a2s\_devel\_nginx
- Installers
  - \* a2s\_install\_adminer
  - \* a2s\_install\_composer
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  - \* a2s\_install\_php
- Groups of a2s APIs
  - \* a2s-devel
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  - \* notifications
  - \* packaging-languages
  - \* packaging-os
  - \* system
- Control a2s workflow
  - \* a2s\_except\_apis

```
* a2s_except_apis_groups

* a2s_only_apis

* a2s_only_apis_groups
```

# 2.5.1 Standard APIs

## a2s\_copies

**Note:** Undocumented at this moment. Check source code at <a href="https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/copy/main.yml">https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/copy/main.yml</a>

#### a2s\_crons

**Note:** Undocumented at this moment. Check source code at <a href="https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/cron/main.yml">https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/cron/main.yml</a>

#### a2s\_directories

- Short Description: Manange directories
- Ansible Modules: file\_module
- **Type of values**: list of dictionaries accepted by the underlining Ansible module. state value will default directory. Other missing values will be ommited.

Listing 5: a2s\_directories\_example.yml

```
# Create directories. a2s directories default allows create custom variables
   # like (var1 in item.var1) or reuse one variable (like owner in item.owner)
2
   a2s_directories_default:
     path: "/var/www/html/{{ item.var1 }}/"
     owner: "{{ item.var1 }}"
     group: "www-data"
   a2s_directories:
     - path: /var/www/html
       recurse: yes
10
       owner: root
11
       group: root
12
13
       var1: null
     - var1: "app"
14
     - var1: "site-a"
15
     - var1: "site-b"
16
     - var1: "cdn-site-a"
17
     - var1: "cdn-site-b"
```

#### a2s etchosts

- Short Description: List of strings to be added on /etc/hosts file. The current implementation will not will not replace older values.
- Ansible Modules: None. This is a custom implementation.
- Type of values: List of strings.

```
a2s_etchosts:
    - "127.0.0.1 site-a.local"
    - "198.51.100.0 example.org example.com"
```

Note: a2s\_etchosts is very likely to be improved before a2s stable release.

#### a2s fetches

- Short Description: Fetch files from remote machines and storing them locally in a file tree, organized by hostname.
- Ansible Modules: fetch module
- Type of values: list of dictionaries accepted by the underlining Ansible module. Missing values will be ommitted.
- Special defaults override: a2s\_fetches\_default

Listing 6: a2s\_fetches\_example.yml

```
a2s_fetches_default:
     dest: /backup/
2
   a2s_fetches:
3
     - src: /etc/ssh/ssh_host_rsa_key # File required on a new node to keep the_
   → fingerprint
     - src: /home/root/.ssh/id_rsa
     - src: /home/root/.ssh/id_rsa.pub
6
   ## For each host, files will be downloaded prefixed with inventory name
   ## Paths will be respected. E.g for node "host.example.com" you get:
   # /backup/host.example.com/etc/ssh/ssh_host_rsa_key
10
   # /backup/host.example.com/home/root/.ssh/id_rsa
   # /backup/host.example.com/home/root/.ssh/id_rsa.pub
```

#### a2s\_files

- Short Description: Manange files. Exlusive feature: Allows create file content from string
- Ansible Modules: file\_module and win\_file\_module or, if a2s\_files[n]content is defined, copy\_module and win\_copy\_module
- Type of values: list of dictionaries accepted by the underlining Ansible module. Other missing values will be ommitted.
- Special defaults override: a2s\_files\_default

You can consider a2s\_files with the same parameters of Ansible file\_module & win\_file\_module. The only exception to this rule is if you define a non-empty value to a2s\_files[n]content: in this case a2s\_files will use Ansible copy\_module & win\_copy\_module.

#### Listing 7: a2s\_files\_example.yml

```
a2s_files_default:
    group: "www-data"

a2s_files:
    - path: "/var/www/html/app/index.html"
    content: "Hello world, app!"
    owner: "app"
```

### a2s\_groups

- Short Description: group Add or remove groups / win\_group Add and remove local groups
- Ansible Modules: [group](https://docs.ansible.com/ansible/latest/modules/group\_module.html) [win\_group](https://docs.ansible.com/ansible/latest/modules/win\_group\_module.html)
- Type of values: list of dictionaries accepted by the underlining Ansible modules. Missing values will be ommited.
- Examples

```
a2s_groups:
    - name: "www-data"
    - name: "haproxy"
    - name: "user-to-remove"
    state: "absent"
```

#### a2s\_hostname

- Short Description: hostname Manage hostname, enforcing [RFC822](https://www.w3.org/Protocols/rfc822/format to avoid fail
- Ansible Modules: [hostname](https://docs.ansible.com/ansible/latest/modules/hostname\_module.html)
- Type of values: Dictionary. Same values of Ansible module hostname.

To add to /etc/hosts, check [a2s\_etchosts](#a2s\_etchosts).

```
a2s_mysql_dbs
```

**Note:** Undocumented at this moment. Check source code at <a href="https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/mysql/main.yml">https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/mysql/main.yml</a>

#### a2s\_mysql\_users

**Note:** Undocumented at this moment. Check source code at <a href="https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/mysql/main.yml">https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/mysql/main.yml</a>

#### a2s\_templates

**Note:** Undocumented at this moment. Check source code at <a href="https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/template/main.yml">https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/template/main.yml</a>

#### a2s\_users

- Short Description: user Manage user accounts / win\_user Manages local Windows user accounts
- Ansible Modules:

   [user](https://docs.ansible.com/ansible/latest/modules/user\_module.html)
   [win\_user](https://docs.ansible.com/ansible/latest/modules/win\_user\_module.html)
- Type of values: list of dictionaries accepted by the underlining Ansible modules. Missing values will try a2s\_users\_default, then will be ommitted.
- Special defaults override: a2s\_users\_default

Listing 8: a2s\_users\_example.yml

```
a2s_users_default:
     create_home: no
2
     groups: ["www-data"]
   a2s_users:
5
     - name: "app"
6
     - name: "site-a"
7
     - name: "site-b"
     - name: "cdn-site-a"
       groups: ["cdns", "www-data"]
     - name: "cdn-site-b"
11
       groups: ["cdns", "www-data"]
12
     - name: "php-demo"
13
     - name: "fititnt"
14
       create_home: yes
15
       authorized_keys:
         - key: https://github.com/fititnt.keys
```

#### a2s\_users[n]authorized\_keys

- Short Description: authorized\_key Adds or removes an SSH authorized key
- Ansible Modules: [authorized\_key](https://docs.ansible.com/ansible/latest/modules/authorized\_key\_module. html)
- Type of values: list of dictionaries accepted by the underlining Ansible modules. Missing required user (a2s\_users[n]authorized\_keys[m]user) will default to name (a2s\_users[n]name). Other missing values will be ommited

#### 2.5.2 Extra APIs

```
a2s_install_adminer
```

a2s rclone

### 2.5.3 Devel APIs

```
a2s_devel_nginx
```

Install NGinx with a2s\_devel\_nginx: true. Used for testing.

**Note:** This is an internal feature and may not be documented because is not planned to be used for end users. The source code is at: <a href="https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/devel-nginx/main.yml">https://github.com/fititnt/ansible-syntactic-sugar/blob/master/tasks/devel-nginx/main.yml</a>

#### Example:

```
- hosts: all
  remote_user: root
  vars:
    a2s_devel_nginx: true

roles:
    - { role: fititnt.syntactic_sugar }
```

### 2.5.4 Installers

#### a2s\_install\_adminer

- Short Description: Install [adminer](https://www.adminer.org/), "Database management in a single PHP file"
- Default: undefined
- Type of value: Dictionary (name, state)
- Examples of values: {{ a2s\_adminer }}

Variable { { a2s\_adminer } } are a syntactic sugar for the default parameters

#### a2s\_install\_composer

- **Short Description**: Install [composer](https://getcomposer.org/) required by [Ansible composer](https://docs.ansible.com/ansible/latest/modules/composer\_module.html) by default on global path
- Ansible Modules: None. Custom implementation.
- **Type of values**: Boolean, Dictionary

All these examples have the same effect (install on global scope)

```
a2s_install_composer: true
```

```
a2s_install_composer: "{{ a2s__composer }}"
```

```
a2s_install_composer:
    - path: /usr/local/bin
    user: root
    force: false # true force reinstall
    version: '' # use custom version to install
    php: 'php' # php binary to use. If is not 'php' customize here
```

#### a2s\_install\_composers

- Short Description: Install [composer](https://getcomposer.org/) required by [Ansible composer](https://docs.ansible.com/ansible/latest/modules/composer module.html) for more than one user
- Ansible Modules: None
- Type of values: List of Dictionaries

```
a2s_install_composers:
    - "{{ a2s__composer }}" # Global, as root
    - path: '/home/user1/bin'
    user: user1
    - path: '/home/user2/bin'
    user: user2
```

#### a2s\_install\_php

- Default: undefined
- Type of value: List of Strings; List of Objects (name, state)

```
• Examples of values: {{ a2s_php74 }}, {{ a2s_php73 }}, {{ a2s_php72 }},
  ['php-fpm', 'php-common'] <sup>(assumes state: present)</sup> [{name: 'php-fpm',
  state: 'present'}, name: 'php-mssql', state: 'absent']
```

> Install a list of PHP packages on the system

Variables a2s\_php74, a2s\_php73, a2s\_php72... are a *syntactic sugar* to install common packages to run Wordpress, Joomla, Drupal and laravel.

```
In Ansible is possible append arrays values with + (objects you use | combine()), e.g a2s_php_install:
"{{ a2s_php74 + ['php7.4-dev', 'php7.4-ldap'] }}"
```

### 2.5.5 Groups of a2s APIs

a2s-devel

a2s-extra

database

files

notifications

packaging-languages

packaging-os

system

#### 2.5.6 Control a2s workflow

```
a2s_except_apis
a2s_except_apis_groups
a2s_only_apis
a2s_only_apis_groups
```

# 2.6 Ansible Syntactic Sugar Constants

**Warning:** a2s still an apha release. This page is not complete.

# 2.7 a2s Example Playbooks

# 2.7.1 Minimal Playbook

a2s\_

Note: If you run this role without explicitly use any [Public APIs](#public-apis) (variables starte with a2s\_ that are not defaults) this Ansible role will make no changes on your system.

```
# Note: this playbook will run without errors, but will not make changes. You
# need to specify variables
- hosts: all
roles:
    - { role: fititnt.syntactic_sugar }
```

# 2.7.2 Run only these APIs playbook example

a2s have so many features that you play may become bigger. As explained in [Ansible Playbook Tags](https://docs.ansible.com/ansible/latest/user\_guide/playbooks\_tags.html) the Ansible default behavior do not allow run only a subset of a Role withtout using -tags / -skip-tags from command line:

"There is no way to 'import only these tags'; you probably want to split into smaller roles/includes if you find yourself looking for such a feature."

—Ansible Playbook Tags

BUT with a2s you can!. We provide one workaround using an special variable a2s\_only. The best way to use is not define a2s\_only on your inventory, but only when importing this role.

```
# On this a2s example, even if your inventory have more than a2s_groups and
# a2s_users defined and not using command line --tags, only a subset of a2s will
# run
- hosts: all
role: fititnt.syntactic_sugar
vars:
   a2s_only_apis:
        - a2s_groups
        - a2s_users
```

```
# Instead of using a2s_only, is possible to specify what a2s apis to not run.
# On this example ones related to database are skipped
- hosts: all
role: fititnt.syntactic_sugar
vars:
    a2s_except_apis:
    - a2s_mysql_dbs
    - a2s_mysql_users
```

# 2.7.3 Playbook using several Public APIs

```
- hosts: all
 remote_user: root
 vars:
   a2s_directories:
      - path: /var/www/my-app
       owner: app
       group: www-data
       mode: '0755'
      - path: /var/www/my-old-app-folder-to-delete
       state: absent
   a2s_groups:
      - name: group1
      - name: group2
   a2s_users:
      - name: user1
      - name: user2
       groups:
         - group2
      - name: fititnt
       authorized_keys:
         key: https://github.com/fititnt.keys
    # a2s_iswindows: true # Uncomment next variable only for Windows hosts.
   - { role: fititnt.syntactic_sugar }
```

# 2.7.4 Playbook full example with Continuos Integration and testinfra

Check the contents of [molecule/default/playbook.yml](molecule/default/playbook.yml) and our Travis-CI panel at <a href="https://travis-ci.com/fititnt/ap-application-load-balancer-extras">https://travis-ci.com/fititnt/ap-application-load-balancer-extras</a>.

If you are not developing an interface that other people depend on or have a very serius infrastructure or several people making changes, well written Ansible playbooks may already be great. If this is not sufficient, check our testinfra tests file at [molecule/default/tests/test\_default.py](molecule/default/tests/test\_default.py).

# 2.8 a2s TODO

**Note:** This page is a draft. May change later.

## 2.8.1 Files modules

https://docs.ansible.com/ansible/latest/modules/archive\_module.html

### ini\_file\_module

https://docs.ansible.com/ansible/latest/modules/ini\_file\_module.html

#### unarchive\_module

https://docs.ansible.com/ansible/latest/modules/unarchive\_module.html#unarchive-module

# 2.8.2 Other / Ungrouped

### htpasswd\_module

https://docs.ansible.com/ansible/latest/modules/htpasswd\_module.html

Maybe these ones:

git\_module https://docs.ansible.com/ansible/latest/modules/git\_module.html#git-module

# 2.9 a2s alternatives

**Note:** This page is a draft. May change later.

# 2.9.1 Ansible without plugins

## 2.9.2 suitable

- https://www.reddit.com/r/ansible/comments/8lguqj/anyone\_using\_the\_python\_api\_wrapper\_named\_suitable/
- https://suitable.readthedocs.io/en/latest/

# 2.9.3 redhat-cop/infra-ansible

 $Description \ from \ main ain ainers: \ *Tooling / Ansible \ to \ support \ the \ many \ aspects \ of \ infrastructure \ installation, setup \ and \ configuration.*$ 

• https://github.com/redhat-cop/infra-ansible

# 2.10 Indices and tables

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