

# Life of a Remote Developer

## A Technical Perspective

# Jakub Wisniowski

- Software Developer
- Project Manager
  - Analyst
  - Sysadmin

# Remote...



# Client

I have a project for you!

Mr. Rough

I want a car.

# Be prepared for

- Analytical work
- A lot of communication\*
- Scope controlling

# Mr. Detailed

Interactive, "killer web services bricks-and-clicks: granular reinvent generate remix embrace, enable integrate innovate users," bricks-and-clicks transform functionalities exploit initiatives enhance markets, relationships? Orchestrate, innovate ecologies, "Cluetrain channels seamless," repurpose viral recontextualize, "transition collaborative e-business synergies."

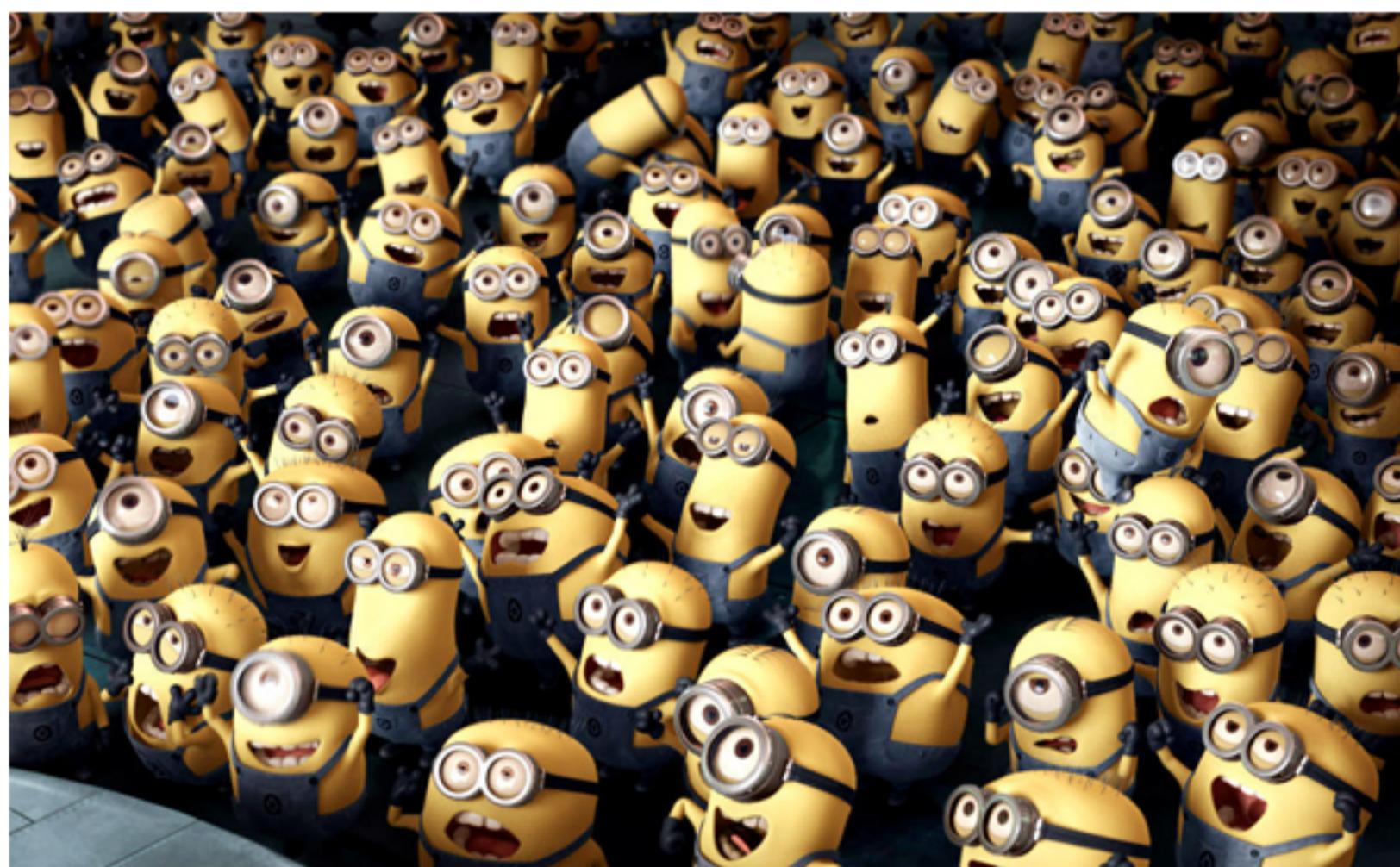
E-markets webservices, tag ROI, create dynamic integrate user-centred, widgets, strategic repurpose syndicate incentivize B2C dynamic redefine." Communities world-class efficient empower scalable revolutionize. Eyeballs networking integrated vertical iterate interfaces integrate AJAX-enabled systems infrastructures next-generation ROI out-of-the-box integrate rich, "bricks-and-clicks; semantic enterprise B2C, front-end: action-items," transparent?

Sticky A-list end-to-end, "networks, capture viral cultivate tag granular syndicate, next-generation distributed, eyeballs networking robust whiteboard integrate repurpose user-centred!"

# Be prepared for

- Verify!
- Trust yourself

Mr. I need support



but sometimes...



# Be prepared for

- Existing codebase...

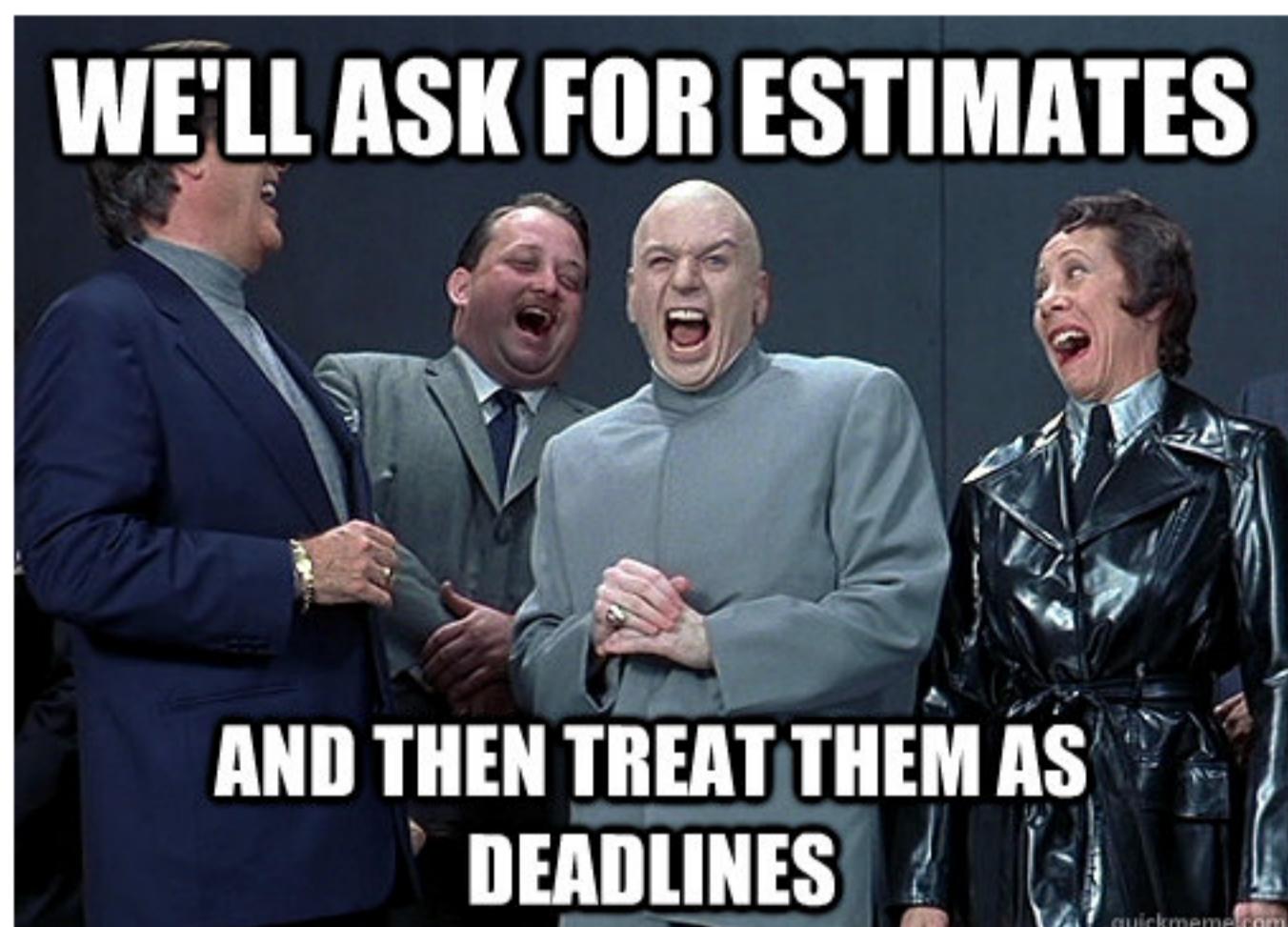
# Be prepared for

- Tons of refactoring
- Writing everything from scratch
  - Hell
  - Heaven

# Mr. Weird



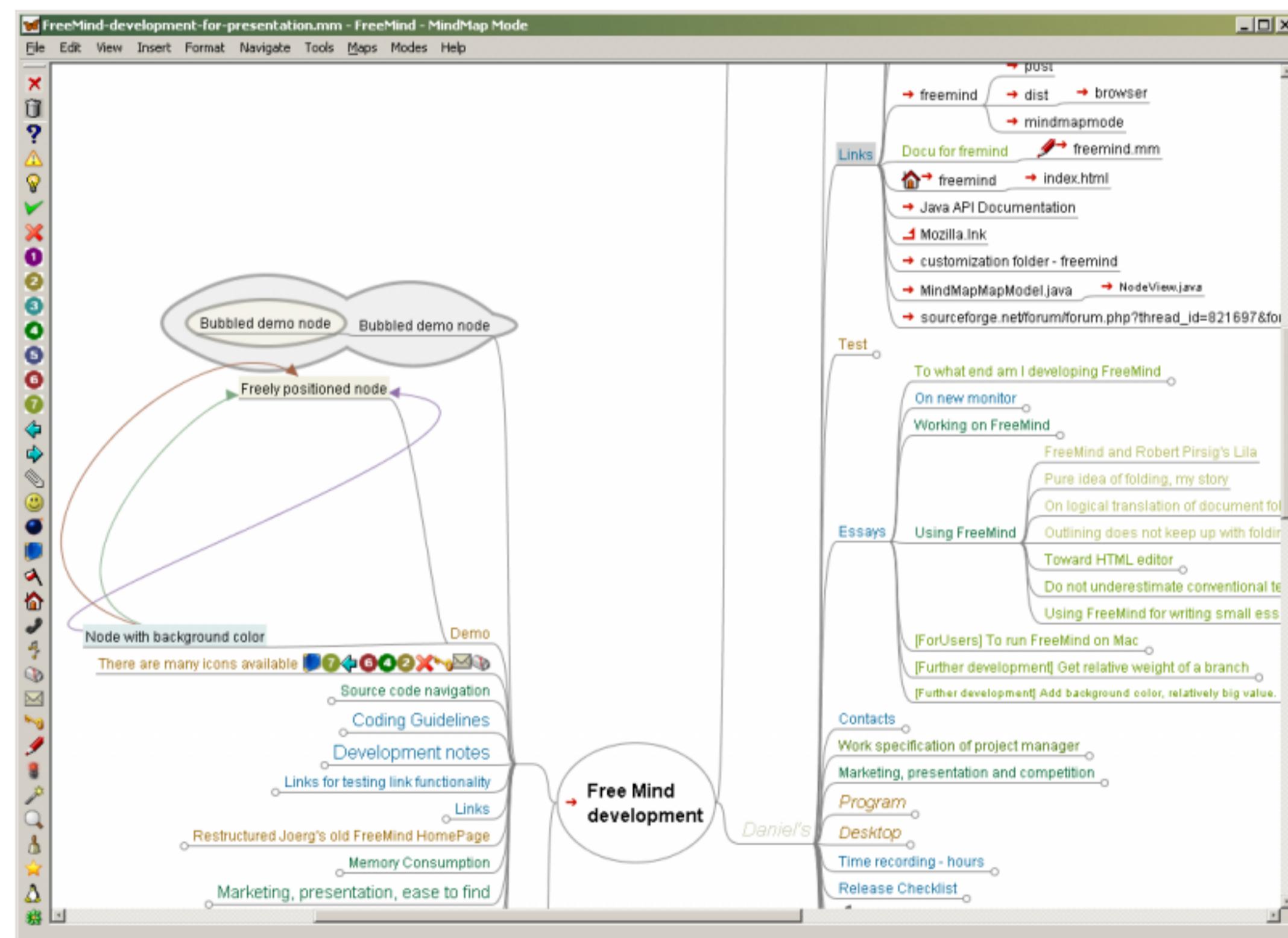
# Estimates...



# Remember to

- focus,
- perform analysis
- break scope into smaller blocks
- ask questions and provide solutions
  - empathy
- template (excel would work pretty well)

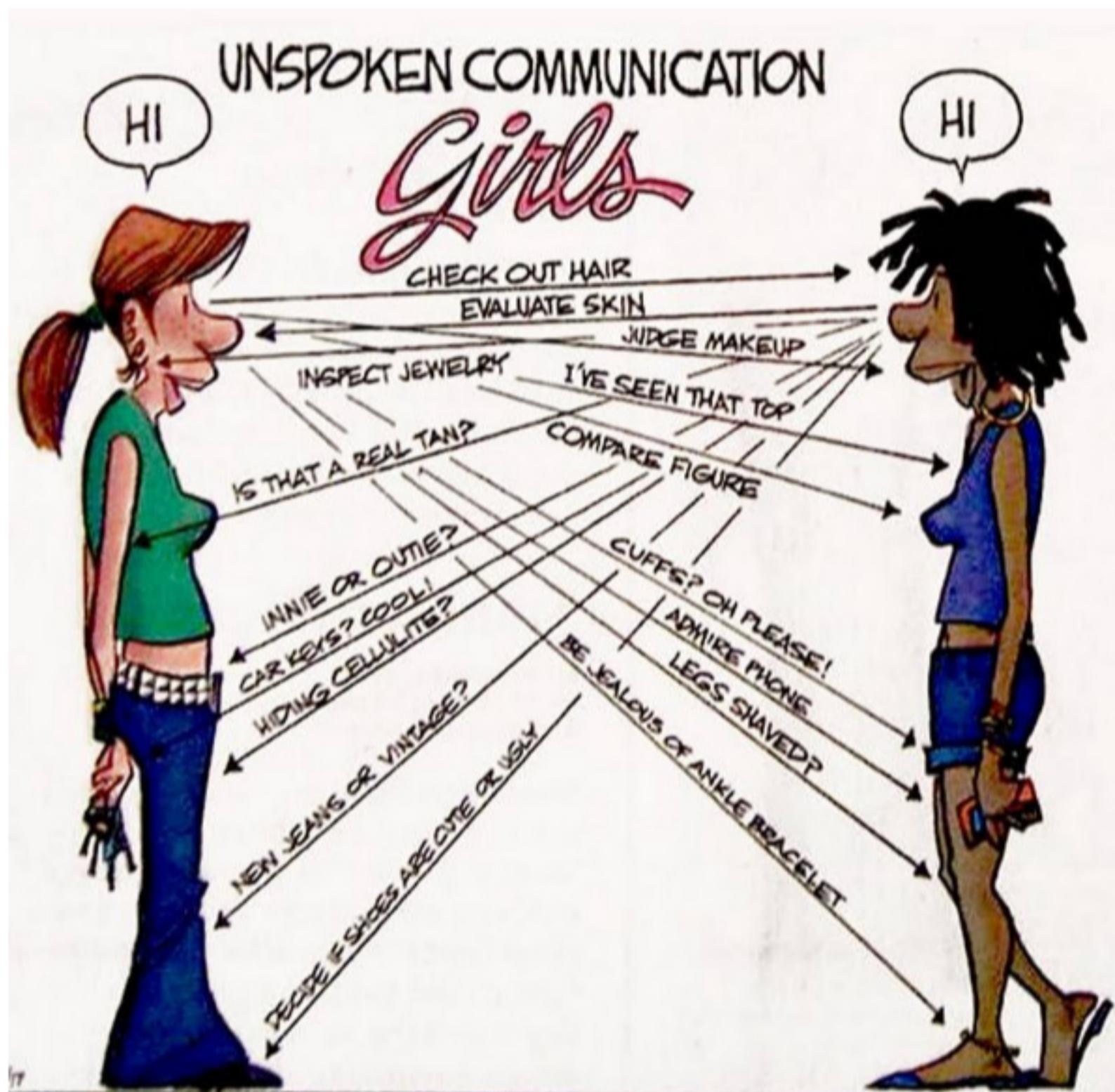
# FreeMind



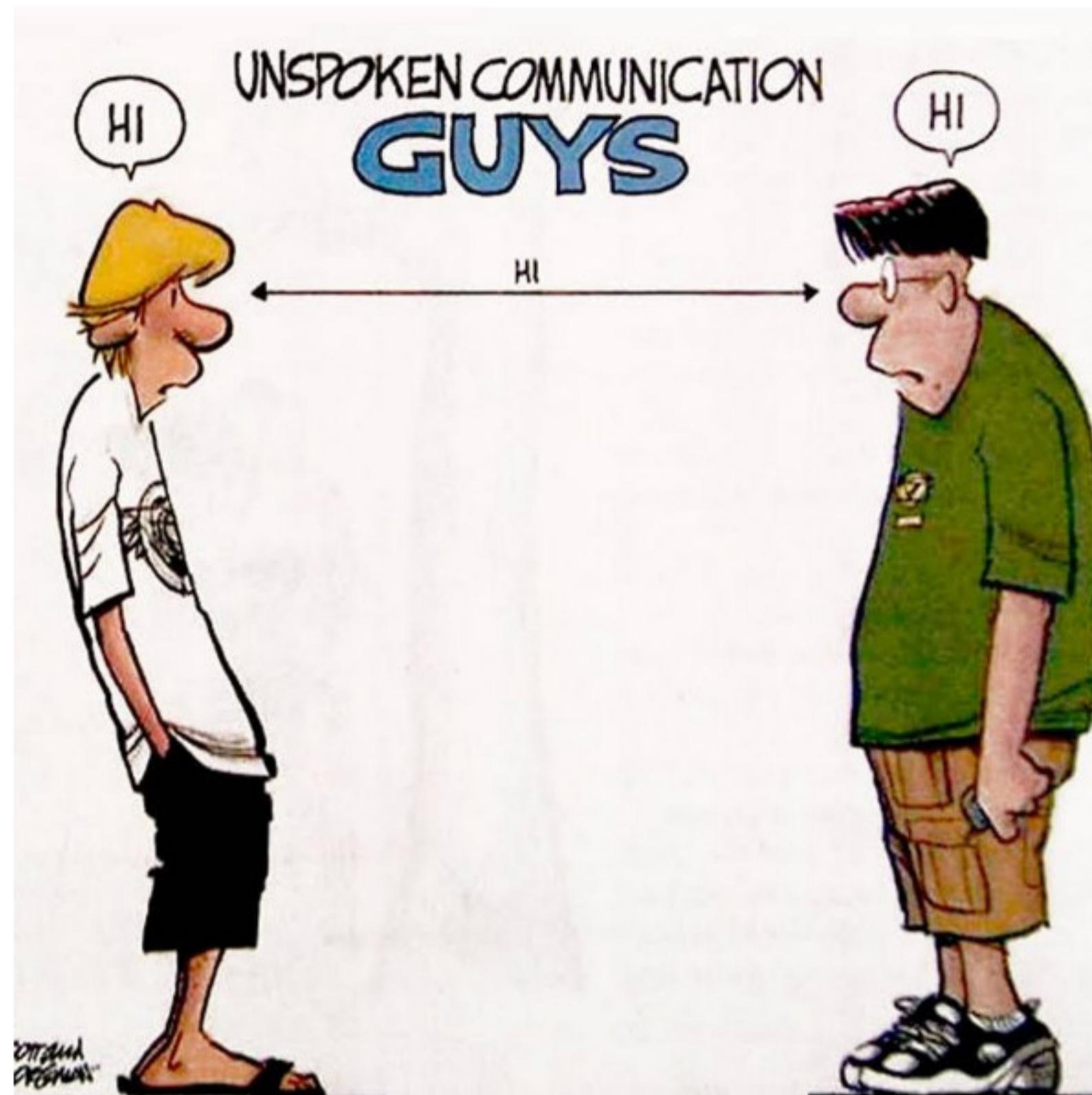
# Contract

- have a contract
- if possible go hourly
- set short billing periods (week, 2 weeks)
- ask for prepayment

# Communication



...can differ



# I'd like to ask about...

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  Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus. Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, tellus.

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...yawn... chrr... chrr... chrr...

# Be concise

## ***Lorem ipsum dolor sit amet, consectetur adipiscing elit.***

Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu.

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# Numbers and Bullets

On 15th May you wrote that:

- one pink elephant is no longer pink
- two green elephants are yellow

I think that:

- one pink elephant is now red
- two green elephants are indeed yellow

Questions:

1. Is there any other elephant?
2. Do you also have monkeys?

# Teamwork

- Skype / Hangout
- GitLab <= Github, Bitbucket
  - Wiki
  - HipChat / Slack
  - Google Docs
  - Seafile

# Project management

- Redmine
- Kanbanize
- Taiga
- ...

# Development

## Snake time

# Cookiecutter

Command line utility that creates  
projects from cookiecutters (project  
templates)

# cookiecutter.json

```
{  
    "full_name": "Jakub Wiśniowski",  
    "email": "jakub.wisniowski@natcam.pl",  
    "home_page": "http://natcam.pl",  
    "repo_name": "presentation",  
    "project_name": "Presentation"  
}
```

# template directory



# template file

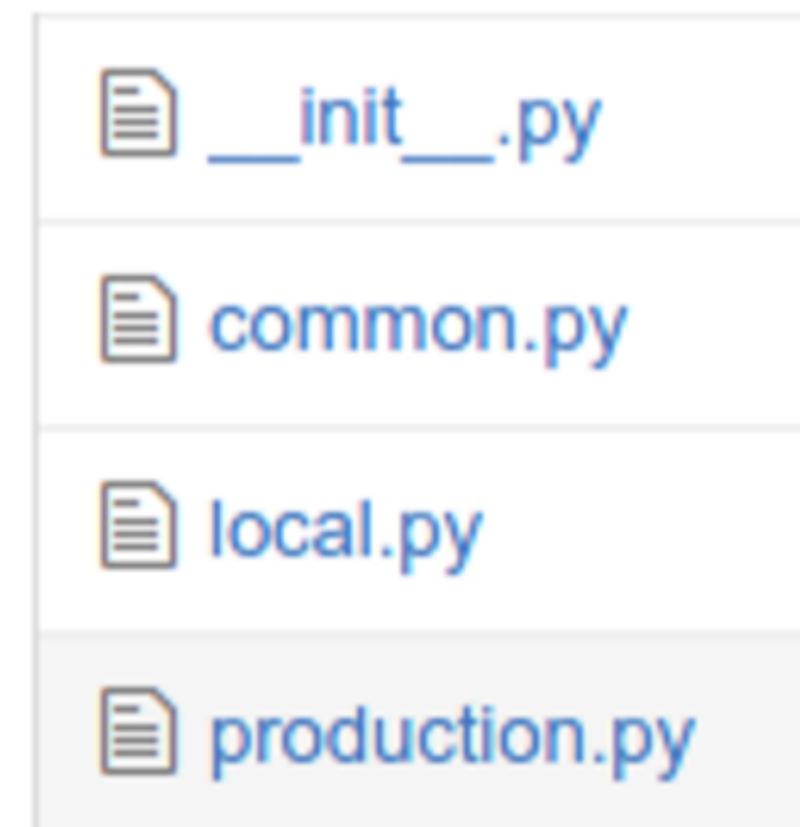
```
<html lang="en">
<head>
    <meta charset="utf-8" />
    <meta name="viewport" content="width=1024" />
    <meta name="apple-mobile-web-app-capable" content="yes" />
    <title>{{cookiecutter.project_name}}</title>

    <meta name="description" content="{{cookiecutter.project_name}}" />
    <meta name="author" content="{{cookiecutter.full_name}}" />
```

# django-cookiecutter

- SASS with live compiler
  - docker containers
- robust requirements layout
  - robust settings layout
  - robust settings
    - hitchtest
    - and more

# settings layout



# django-environ

```
ROOT_DIR = environ.Path(__file__) - 3 # (/a/b/myfile.py - 3 = /)
APPS_DIR = ROOT_DIR.path('{{ cookiecutter.repo_name }}')
env = environ.Env()
DEBUG = env.bool("DJANGO_DEBUG", False)
EMAIL_BACKEND = env('DJANGO_EMAIL_BACKEND',
                    default='django.core.mail.backends.smtp.EmailBackend')
DATABASES = {
    'default': env.db("DATABASE_URL",
                      default="postgres://localhost/{{cookiecutter.repo_name}}"),
}
```

# Virtual Environments

## Vagrantfile

```
config.vm.box = "ubuntu/trusty64"
config.vm.provision :shell,
  :path => "provisioning/setup_environment.sh"
config.vm.provision :shell,
  :path => "provisioning/setup_project.sh",
  :privileged => false
config.vm.network :forwarded_port, guest: 8000, host: 8000
config.vm.network :forwarded_port, guest: 9000, host: 9001
config.vm.network :forwarded_port, guest: 9200, host: 9200
```

# Starting vagrant

```
$ vagrant up  
$ vagrant ssh
```

Windows fix

```
$ dos2unix manage.py (...)
```

# Ansible

Ansible is a radically simple IT automation engine that automates cloud provisioning, configuration management, application deployment, intra-service orchestration, and many other IT needs.

# Inventory

File: *production*

[webservers]

www1.example.com

[dbservers]

db0.example.com

# Plays and Playbooks

File: *webservers.yml*

```
- name: Provision a {{ application_name }} web server
  hosts: webservers
  remote_user: root
  vars:
    - update_apt_cache: yes

  tasks:
    - name: Create deploy user
      user: name={{ deploy_user }} shell=/bin/bash
            generate_ssh_key=yes
            ssh_key_bits=2048
            ssh_key_file=.ssh/id_rsa
```

# Plays and Playbooks 2

## File: *webservers.yml*

```
- name: Install Nginx
  apt: name=nginx update_cache={{ update_apt_cache }} state=installed
  tags: packages
- name: Create the Nginx configuration file
  template: src=nginx_site_config.j2
            dest=/etc/nginx/sites-available/{{ application_name }}
            backup=yes
  notify: reload nginx
roles:
  - { role: gdamjan.uwsgi }
```

# Plays and Playbooks 3

How to run it?

```
$ ansible-playbook -i production webservers.yml
```

# Ansible modules

## Module Index

- [All Modules](#)
- [Cloud Modules](#)
- [Clustering Modules](#)
- [Commands Modules](#)
- [Database Modules](#)
- [Files Modules](#)
- [Inventory Modules](#)
- [Messaging Modules](#)
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- [Network Modules](#)
- [Notification Modules](#)
- [Packaging Modules](#)
- [Source Control Modules](#)
- [System Modules](#)
- [Utilities Modules](#)
- [Web Infrastructure Modules](#)
- [Windows Modules](#)

# Packaging module

## Packaging Modules

- [dpkg\\_selections \(E\)](#) - Dpkg package selection selections
- [elasticsearch\\_plugin \(E\)](#) - Manage Elasticsearch plugins

## Language

- [bower \(E\)](#) - Manage bower packages with bower
- [bundler \(E\)](#) - Manage Ruby Gem dependencies with Bundler
- [composer \(E\)](#) - Dependency Manager for PHP
- [cpanm \(E\)](#) - Manages Perl library dependencies.
- [easy\\_install](#) - Installs Python libraries
- [gem](#) - Manage Ruby gems
- [maven\\_artifact \(E\)](#) - Downloads an Artifact from a Maven Repository
- [npm \(E\)](#) - Manage node.js packages with npm
- [pear \(E\)](#) - Manage pear/pecl packages
- [pip](#) - Manages Python library dependencies.

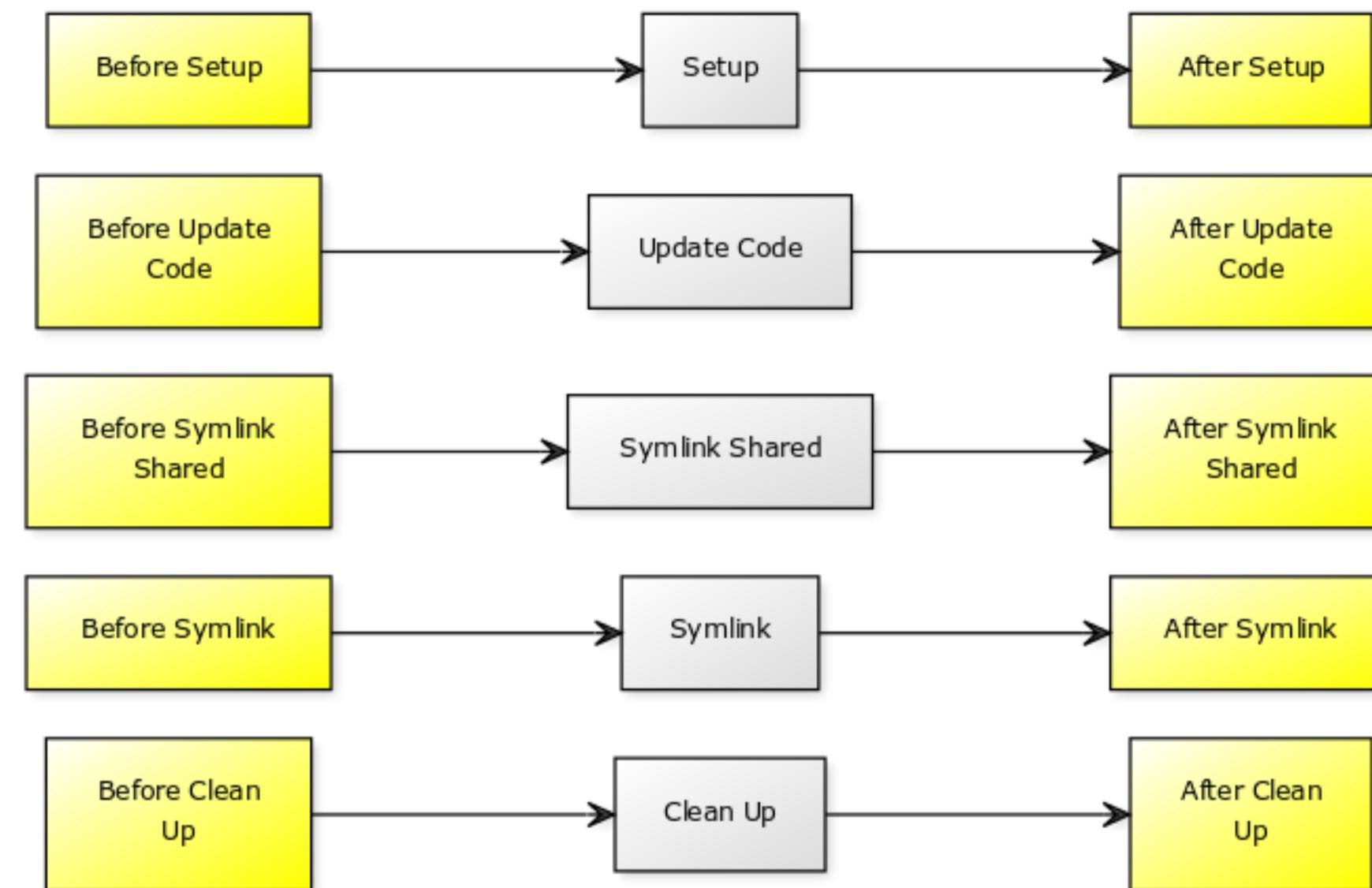
# Ansistrano

Ansible roles to easily manage the deployment process for scripting applications such as PHP, Python and Ruby. It's an Ansible port for Capistrano.

# Anistrano

```
-- /home/deploy/webapps/my-app.com
|-- current -> /home/deploy/webapps/my-app.com/releases/20151017105325
|-- releases
|  |-- 20151015131539
|  |-- 20151016150741
|  |-- 20151017105325
|-- shared
```

# Ansistrano flow



# before-setup.yml

```
- name: Turn maintenance mode on
  file: src={{ ansistrano_deploy_to }}/shared/maintenance.html
        dest={{ ansistrano_deploy_to }}/shared/maintenance_on.html
        owner={{ deploy_user }}
        group=www-data
        state=link
```

# before-symlink.yml

```
- name: Install web app dependencies
  pip: requirements={{ ansistrano_release_path.stdout }}/requirements/{{er
      virtualenv={{virtualenv_dir}}
      #virtualenv_command=virtualenv-3.4

- name: Django migrate
  django_manage: command=migrate
    app_path={{ ansistrano_release_path.stdout }}/app
    settings={{django_settings_module}}
    virtualenv={{virtualenv_dir}}

- name: Django collectstatic
  django_manage: command=collectstatic
    app_path={{ ansistrano_release_path.stdout }}/app
    settings={{django_settings_module}}
    virtualenv={{virtualenv_dir}}
```

# after-symlink.yml

- name: Reload app vassal  
file: path=/etc/uwsgi/vassals/{{ application\_name }}.ini  
state=touch
- name: Turn maintenance mode off  
file: path={{ ansistrano\_deploy\_to }}/shared/maintenance\_on.html  
state=absent

# Tests

- Test scenarios
  - Test cases
  - Tarantula

# ***Summary***

1. Client - know what to expect; Keep healthy relations
2. Communication - consistency FTW
3. Teamwork and management - proper toolset
4. Virtual environments - reproducility
5. Server management & deployment - automate
6. Respect your tester

# ***Thank you!***

Made with:

- hovercraft (powered by impress.js)

Images used:

- What is sleep - Nickelodeon / Via forums.kleientertainment.com
- <http://uk.ign.com/articles/2012/07/24/uni-developing-despicable-me-spin-off-for-minions>
- <http://www.familysavings.com/sweepstakes/today-parenting-team-minion-movie-ticket-giveaway/>
- <http://thefinanser.co.uk/fsclub/2015/03/do-you-work-for-a-monkey-tree-organisation.html>