<https://www.youtube.com/watch?v=sKNZMtoSHN4&index=7&list=PLDGkOdUX1Ujo3wHw9-z5Vo12YLqXRjzg2>

doc: <http://docs.grafana.org/>

path:  /usr/local/Cellar/grafana/5.2.2: 2,571

<http://docs.grafana.org/features/datasources/influxdb/>

**Installation:**

1. Install on Mac
   * $ brew update
   * $ brew install grafana
2. upgrade: $ brew reinstall grafana
3. Starting Grafana:
   * $ brew tap homebrew/services
   * $ brew services start grafana
4. Configuration: /usr/local/etc/grafana/grafana.ini
5. Logs: /usr/local/var/log/grafana/grafana.log
6. Plugins: /usr/local/var/lib/grafana/plugins
7. Database: /usr/local/var/lib/grafana
   * Database backup:
     + mysql:
       - backup: > mysqldump -u root -p[root\_password] [grafana] > grafana\_backup.sql
       - restore: mysql -u root -p grafana < grafana\_backup.sql
     + postgres:
       - backup: > pg\_dump grafana > grafana\_backup
       - restore: > psql grafana < grafana\_backup

**Configuration:**

1. Grafana needs to be restarted for any configuration changes to take effect.
2. The semicolon (the ; char) is used to comment out lines in a .ini file.
3. [paths]
   * [path] > temp\_Data\_lifetime is not found in config.ini file.
4. [server]
   * To use port 80, you can select one of the below method:
     + give the Grafana binary permission:
       - $ sudo setcap 'cap\_net\_bind\_service=+ep' /usr/sbin/grafana-server
     + Or redirect port 80 to the Grafana port:
       - $ sudo iptables -t nat -A PREROUTING -p tcp --dport 80 -j REDIRECT --to-port 3000
5. [database]
   * ssl\_mode: For MySQL, use either “true", “false", or "skip-verify".
   * ca\_cert\_path, client\_key\_path, client\_cert\_path, server\_cert\_name: not found
   * max\_idle\_conn: The maximum number of connections in the idle connection pool
   * max\_open\_conn: The maximum number of open connection to the database.
   * conn\_max\_lifetime: For MySQL, this setting should be shorter than the wait\_timeout variable.
6. [security]
   * secret\_key: used for signing keep me logged in / remember me cookies
7. [users]
   * auto\_assign\_org\_role: other valid options are “Admin” and “Editor”
8. [auth.anonymous]
   * org\_role: other valid options are “Editor” and “Admin"
9. [auth.github]

**Features:**

1. Repeat Panels
   * <http://docs.grafana.org/reference/templating/#repeating-panels>
2. Drilldown / detail link
   * dashboard: Dashboard = the attached dashboard name
   * absolute: Url = the attached url
   * Url params: adding additional URL params to the links
     + absolute: name = value or name = $myvar (for template variables)
     + dashboard: var-myvar = value (for template variables)

