



---

**Instalación Servidor Testing INE  
ShinyProxy / Shiny\_Calidad  
Docker & CENT OS 7  
V1.1**

---

**INSTITUTO NACIONAL DE ESTADÍSTICAS**  
Junio / 2021

<b>Versión</b>	<b>Fecha</b>	<b>Autor</b>	<b>Observaciones</b>
1.0	22-06-2021	Juan C. Ávila – Arquitecto TI	Creación de documento
1.1	01-07-2021	Juan C. Ávila – Arquitecto TI	Actualización de documento

## Tabla de contenido

1.	INTRODUCCIÓN .....	3
2.	INSTALACION DE SOLUCION SHINYPROXY CON SHINY_CALIDAD.....	4
3.	BIBLIOGRAFIA DE RECURSOS .....	16

## 1. INTRODUCCIÓN

El objetivo del presente documento es replicar la instalación del servidor de laboratorio para implementar un servidor de testing INE para el proyecto de encapsulación R, el cual utiliza **ShinyProxy** y **Shiny\_Calidad** sobre Plataforma **Docker** en el servidor **CENTOS 7**.

Este documento permite resguardar el conocimiento generado en el proceso de laboratorio en la implementación de esta arquitectura de la solución.

## 2. INSTALACION DE SOLUCION SHINYPROXY CON SHINY\_CALIDAD

### DOCKER

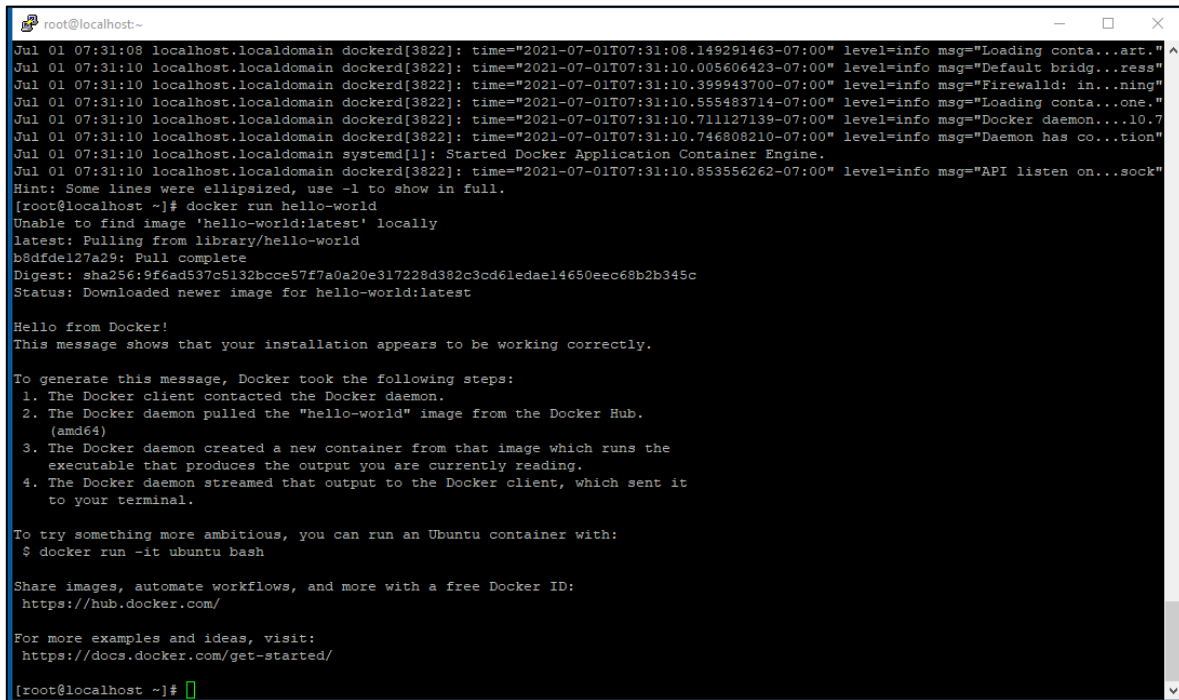
Para instalar docker ejecutamos el siguiente comando

```
$ yum install -y yum-utils device-mapper-persistent-data lvm2
$ yum-config-manager --add-repo
https://download.docker.com/linux/centos/docker-ce.repo
$ yum install docker-ce
$ systemctl enable docker
$ systemctl start docker
$ systemctl status docker
```

Para probar que está funcionando docker ejecutamos el siguiente comando

```
$ docker run hello-world
```

Como respuesta obtendrá lo siguiente



```
root@localhost:~
Jul 01 07:31:08 localhost.localdomain dockerd[3822]: time="2021-07-01T07:31:08.149291463-07:00" level=info msg="Loading conta...art."
Jul 01 07:31:10 localhost.localdomain dockerd[3822]: time="2021-07-01T07:31:10.005606423-07:00" level=info msg="Default bridg...ress"
Jul 01 07:31:10 localhost.localdomain dockerd[3822]: time="2021-07-01T07:31:10.399943700-07:00" level=info msg="Firewalld: in...ning"
Jul 01 07:31:10 localhost.localdomain dockerd[3822]: time="2021-07-01T07:31:10.555483714-07:00" level=info msg="Loading conta...one."
Jul 01 07:31:10 localhost.localdomain dockerd[3822]: time="2021-07-01T07:31:10.71127139-07:00" level=info msg="Docker daemon...10.7
Jul 01 07:31:10 localhost.localdomain dockerd[3822]: time="2021-07-01T07:31:10.746808210-07:00" level=info msg="Daemon has co...tion"
Jul 01 07:31:10 localhost.localdomain systemd[1]: Started Docker Application Container Engine.
Jul 01 07:31:10 localhost.localdomain dockerd[3822]: time="2021-07-01T07:31:10.853556262-07:00" level=info msg="API listen on...sock"
Hint: Some lines were ellipsized, use -l to show in full.
[root@localhost ~]# docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
b8dfdel27a29: Pull complete
Digest: sha256:9f6ad537c5132bcc57f7a0a20e317228d382c30d61edae14650eec68b2b345c
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

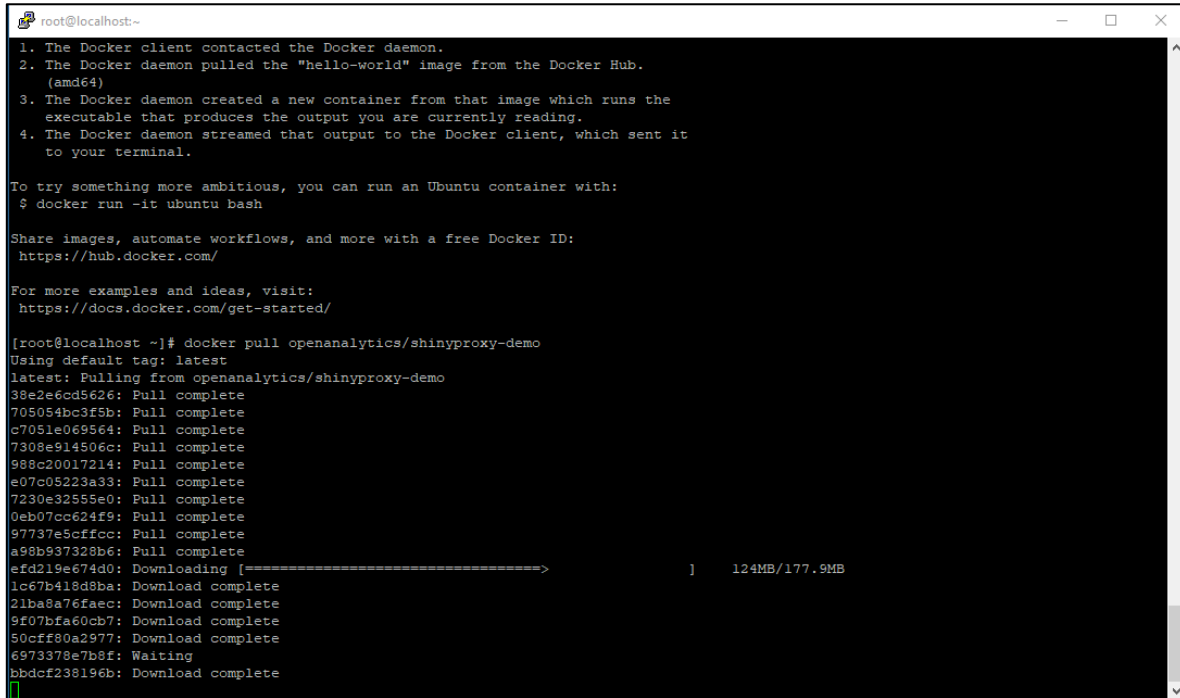
For more examples and ideas, visit:
https://docs.docker.com/get-started/

[root@localhost ~]#
```

## SHINY\_PROXY

Para descargar la imagen de shinyproxy debemos ejecutar el siguiente comando

```
$ docker pull openanalytics/shinyproxy-demo
```

A terminal window titled 'root@localhost:~' showing the output of the 'docker pull openanalytics/shinyproxy-demo' command. The output includes a list of 4 steps explaining how Docker works, instructions on how to run an Ubuntu container, and links to Docker documentation. The main part of the output shows the progress of pulling the 'shinyproxy-demo' image from Docker Hub, listing various layers and their download status. The final layer 'bfdcf238196b' is still 'Waiting' for download.

```
root@localhost:~# docker pull openanalytics/shinyproxy-demo
Using default tag: latest
latest: Pulling from openanalytics/shinyproxy-demo
38e2e6cd5626: Pull complete
705054bc3f5b: Pull complete
c7051e069564: Pull complete
7308e914506c: Pull complete
988c20017214: Pull complete
e07c05223a33: Pull complete
7230e32555e0: Pull complete
0eb07cc624f9: Pull complete
97737e5cfffcc: Pull complete
a98b937328b6: Pull complete
efd219e674d0: Downloading [=====>] 124MB/177.9MB
1c67b418d8ba: Download complete
21ba8a76faec: Download complete
9f07bfa60cb7: Download complete
50cff80a2977: Download complete
6973378e7b8f: Waiting
bfdcf238196b: Download complete
```

yum install git nos permitirá clonar el repositorio. Para clonar la solución de shiny\_calidad desde el repositorio del usuario debemos ejecutar el siguiente comando, el cual nos pedirá user/pass

```
$ git clone https://github.com/ricardoflopiza/shiny_calidad
```

Nota: el usuario y pass corresponden al equipo de analistas. solicitar con ellos el acceso a este repositorio. Una vez descargada la app, ingresar a la carpeta R y editar el archivp app.R omitiendo la librería XLConnect, dado que es un tema la app y no es parte de este instalador.

```
root@localhost:~#
Downloading packages:
(1/4): perl-Error-0.17020-2.el7.noarch.rpm | 32 kB 00:00:00
(2/4): perl-TermReadKey-2.30-20.el7.x86_64.rpm | 31 kB 00:00:00
(3/4): perl-Git-1.8.3.1-23.el7_8.noarch.rpm | 56 kB 00:00:00
(4/4): git-1.8.3.1-23.el7_8.x86_64.rpm | 4.4 MB 00:00:01
-----
Total | 2.3 MB/s | 4.5 MB 00:00:01
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : 1:perl-Error-0.17020-2.el7.noarch 1/4
  Installing : perl-TermReadKey-2.30-20.el7.x86_64 2/4
  Installing : perl-Git-1.8.3.1-23.el7_8.noarch 3/4
  Installing : git-1.8.3.1-23.el7_8.x86_64 4/4
  Verifying : git-1.8.3.1-23.el7_8.x86_64 1/4
  Verifying : 1:perl-Error-0.17020-2.el7.noarch 2/4
  Verifying : perl-Git-1.8.3.1-23.el7_8.noarch 3/4
  Verifying : perl-TermReadKey-2.30-20.el7.x86_64 4/4

Installed:
  git.x86_64 0:1.8.3.1-23.el7_8

Dependency Installed:
  perl-Error.noarch 1:0.17020-2.el7      perl-Git.noarch 0:1.8.3.1-23.el7_8      perl-TermReadKey.x86_64 0:2.30-20.el7

Complete!
[root@localhost ~]# git clone https://github.com/ricardoflopiza/shiny_calidad
Cloning into 'shiny_calidad'...
Username for 'https://github.com':
Password for 'https://@github.com':
remote: Enumerating objects: 191, done.
remote: Counting objects: 100% (191/191), done.
remote: Compressing objects: 100% (109/109), done.
remote: Total 191 (delta 84), reused 158 (delta 64), pack-reused 0
Receiving objects: 100% (191/191), 10.01 MiB | 2.53 MiB/s, done.
Resolving deltas: 100% (84/84), done.
[root@localhost ~]#
```

Una vez clonado la app de calidad, procedemos a crear una imagen docker de la solución,

```
root@localhost:~/shiny_calidad
[root@localhost shiny_calidad]# pwd
/root/shiny_calidad
[root@localhost shiny_calidad]#
```

Crear el archivo Rprofile.site con el siguiente código:

```
local({
  options(shiny.port = 3838, shiny.host = "0.0.0.0")
})
```

para ello debemos crear un Dockerfile en el directorio raíz de la app, ingresando el siguiente código

```

FROM openanalytics/r-base
MAINTAINER JuanCAvila "j.avilac11@gmail.com"
# system libraries of general use
RUN apt-get update && apt-get install -y \
    sudo \
    pandoc \
    pandoc-citeproc \
    libcurl4-gnutls-dev \
    libcairo2-dev \
    libxt-dev \
    libssl-dev \
    libssh2-1-dev \
    libssl1.1 \
    build-essential \
    cmake \
    git \
    libbamtools-dev \
    libboost-dev \
    libboost-iostreams-dev \
    libboost-log-dev \
    libboost-system-dev \
    libboost-test-dev \
    libxml2-dev \
    libz-dev \
    curl \
    libarmadillo-dev \
    && rm -rf /var/lib/apt/lists/*
# system library dependency for the euler app
RUN apt-get update && apt-get install -y \
    libmpfr-dev \
    && rm -rf /var/lib/apt/lists/*
# basic shiny functionality
RUN R -e "install.packages(c('shiny', 'rmarkdown'),
repos='https://cloud.r-project.org/')"
# install dependencies Shiny_Calidad App
RUN R -e "install.packages(c('devtools','shiny', 'haven',
'labelled', 'dplyr', 'openxlsx', 'sjmisc', 'readxl', 'survey',
'shinyWidgets', 'rlang', 'kableExtra', 'shinycssloaders', 'readr',
'shinybusy', 'shinyalert', 'writexl', 'shinyjs', 'tibble',
'plotly'), repos='http://cran.rstudio.com/')"
#RUN R -e "devtools::install_github('calidad',
repos='https://github.com/Klauslehmann/calidad')"
RUN R -e "devtools::install_github('Klauslehmann/calidad')"
RUN mkdir /root/shiny_calidad_final
COPY R /root/shiny_calidad_final
COPY Rprofile.site /usr/lib/R/etc/
EXPOSE 3838
CMD ["R","-e", "shiny::runApp('/root/shiny_calidad_final')"]

```

Para crear la imagen debemos ejecutar el siguiente comando:

```
$ sudo docker build -t shiny_calidad .
```

Nota : este proceso dura aproximadamente 25 minutos

```
root@localhost:~/shiny_calidad
[root@localhost shiny_calidad]# pwd
/root/shiny_calidad
[root@localhost shiny_calidad]# vi Dockerfile
[root@localhost shiny_calidad]# vi Dockerfile
[root@localhost shiny_calidad]# sudo docker build -t shiny_calidad.
invalid argument "shiny_calidad." for "-t, --tag" flag: invalid reference format
See 'docker build --help'.
[root@localhost shiny_calidad]# sudo docker build shiny_calidad.
unable to prepare context: path "shiny_calidad." not found
[root@localhost shiny_calidad]# ls
appvl.r      cars.xlsx   Dockerfile  planificación.ods  R      shiny_calidad.Rproj
bkish 2019_mas_variables.rds  data      estructura_presentacion  presentacion  README.md  vl
[root@localhost shiny_calidad]# vi Dockerfile
[root@localhost shiny_calidad]# sudo docker build -t shiny_calidad.
invalid argument "shiny_calidad." for "-t, --tag" flag: invalid reference format
See 'docker build --help'.
[root@localhost shiny_calidad]# sudo docker build -t shiny_calidad .
Sending build context to Docker daemon  22.12MB
Step 1/12 : FROM openanalytics/r-base
latest: Pulling from openanalytics/r-base
345e3491a907: Pull complete
57671312ef6f: Pull complete
5e92504db7d0: Pull complete
4746d36c2e81: Pull complete
b4cdc6f7ee3f: Pull complete
b67b92b2bab0: Pull complete
170bbc9e6cc9: Pull complete
cd1edc16873f: Pull complete
dcb8bdd26ceb: Extracting [=====>]  185.1MB/185.1MB
[ ]
```

```
root@localhost:~/shiny_calidad
*** installing help indices
** building package indices
** installing vignettes
** testing if installed package can be loaded from temporary location
** checking absolute paths in shared objects and dynamic libraries
** testing if installed package can be loaded from final location
** testing if installed package keeps a record of temporary installation path
* DONE (fs)
* installing 'source' package 'rappdirs' ...
** package 'rappdirs' successfully unpacked and MD5 sums checked
** using staged installation
** libs
gcc -std=gnu99 -I"/usr/share/R/include" -DNDEBUG -fpic -g -O2 -fdebug-prefix-map=/build/r-base-trgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c init.c -o init.o
gcc -std=gnu99 -I"/usr/share/R/include" -DNDEBUG -fpic -g -O2 -fdebug-prefix-map=/build/r-base-trgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c win-path.c -o win-path.o
gcc -std=gnu99 -shared -L/usr/lib/R/lib -Wl,-Bsymbolic-functions -Wl,-z,relro -o rappdirs.so init.o win-path.o -L/usr/lib/R/lib -lR
installing to /usr/local/lib/R/site-library/00LOCK-rappdirs/00new/rappdirs/libs
** R
** byte-compile and prepare package for lazy loading
** help
*** installing help indices
** building package indices
** testing if installed package can be loaded from temporary location
** checking absolute paths in shared objects and dynamic libraries
** testing if installed package can be loaded from final location
** testing if installed package keeps a record of temporary installation path
* DONE (rappdirs)
* installing 'source' package 'Rcpp' ...
** package 'Rcpp' successfully unpacked and MD5 sums checked
** using staged installation
** libs
g++ -std=gnu++11 -I"/usr/share/R/include" -DNDEBUG -I../inst/include/ -fpic -g -O2 -fdebug-prefix-map=/build/r-base-trgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c api.cpp -o api.o
g++ -std=gnu++11 -I"/usr/share/R/include" -DNDEBUG -I../inst/include/ -fpic -g -O2 -fdebug-prefix-map=/build/r-base-trgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c attributes.cpp -o attributes.o
[ ]
```



```
root@localhost:~/shiny_calidad
-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c init.c -o init.o
MAKEFLAGS= CC="gcc -std=gnu99" CFLAGS="-g -O2 -fdebug-prefix-map=/build/r-base-trgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g" CXX="g++ -std=gnu++11" AR="ar" LDFLAGS="-Wl,-Bsymbolic-functions -Wl,-z,relro" make -C libsass
make[1]: Entering directory '/tmp/Rtmp19VKsr/R.INSTALL4c501ce671d9/sass/src/libsass'
gcc -std=gnu99 -g -O2 -fdebug-prefix-map=/build/r-base-trgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -O2 -I ./include -fPIC -c -o src/cencode.o src/cencode.c
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/ast.o src/ast.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/ast_values.o src/ast_values.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/ast_supports.o src/ast_supports.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/ast_sel_cmp.o src/ast_sel_cmp.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/ast_sel_unify.o src/ast_sel_unify.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/ast_sel_super.o src/ast_sel_super.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/ast_sel_weave.o src/ast_sel_weave.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/ast_selectors.o src/ast_selectors.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/context.o src/context.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/constants.o src/constants.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/fn_utils.o src/fn_utils.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/fn_miscs.o src/fn_miscs.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/fn_maps.o src/fn_maps.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/fn_lists.o src/fn_lists.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/fn_colors.o src/fn_colors.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/fn_numbers.o src/fn_numbers.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/fn_strings.o src/fn_strings.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/fn_selectors.o src/fn_selectors.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/color_maps.o src/color_maps.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/environment.o src/environment.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/ast_fwd_decl.o src/ast_fwd_decl.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/bind.o src/bind.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/file.o src/file.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/util.o src/util.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/util_string.o src/util_string.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/json.o src/json.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/units.o src/units.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/values.o src/values.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/plugins.o src/plugins.cpp
g++ -std=gnu++11 -Wall -O2 -std=c++11 -I ./include -fPIC -c -o src/source.o src/source.cpp
```

```
root@localhost:~/shiny_calidad
g++ -std=gnu++11 -I'/usr/share/R/include' -DNDEBUG -Ilibuv/include -pthread -I'/usr/local/lib/R/site-library/Rcpp/include' -I'/usr/local/lib/R/site-library/later/include' -fvisibility=hidden -DSTRICT_R_HEADERS -fPIC -g -O2 -fdebug-prefix-map=/build/r-base-trgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c websockets-ietf.cpp -o websockets-ietf.o
g++ -std=gnu++11 -I'/usr/share/R/include' -DNDEBUG -Ilibuv/include -pthread -I'/usr/local/lib/R/site-library/Rcpp/include' -I'/usr/local/lib/R/site-library/later/include' -fvisibility=hidden -DSTRICT_R_HEADERS -fPIC -g -O2 -fdebug-prefix-map=/build/r-base-trgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c websockets.cpp -o websockets.o
g++ -std=gnu++11 -I'/usr/share/R/include' -DNDEBUG -Ilibuv/include -pthread -I'/usr/local/lib/R/site-library/Rcpp/include' -I'/usr/local/lib/R/site-library/later/include' -fvisibility=hidden -DSTRICT_R_HEADERS -fPIC -g -O2 -fdebug-prefix-map=/build/r-base-trgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c winutils.cpp -o winutils.o
cp -p -f libuv/m4/lt_obsolete.m4 libuv/m4/lt_obsolete.m4
(cd libuv \
  && touch aclocal.m4 \
  && touch -r aclocal.m4 configure Makefile.in \
  && chmod +x configure \
  && CC="gcc -std=gnu99" CFLAGS="-g -O2 -fdebug-prefix-map=/build/r-base-trgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -fPIC -fvisibility=hidden" AR="ar" RANLIB="ranlib" LDFLAGS="-Wl,-Bsymbolic-functions -Wl,-z,relro" ./configure "--quiet")
make --directory=libuv \
  HAVE_DTRACE=0
make[1]: Entering directory '/tmp/RtmpLrViE7/R.INSTALL4elb7a326107/httpuv/src/libuv'
CC      src/libuv_la-fs-poll.lo
CC      src/libuv_la-idna.lo
CC      src/libuv_la-inet.lo
CC      src/libuv_la-random.lo
CC      src/libuv_la-strscpy.lo
CC      src/libuv_la-threadpool.lo
CC      src/libuv_la-timer.lo
CC      src/libuv_la-uv-data-getter-setters.lo
CC      src/libuv_la-uv-common.lo
CC      src/libuv_la-version.lo
CC      src/unix/libuv_la-async.lo
CC      src/unix/libuv_la-core.lo
CC      src/unix/libuv_la-dl.lo
CC      src/unix/libuv_la-fs.lo
```

```
root@localhost:~/shiny_calidad
CCLD libuv.la
ar: 'u' modifier ignored since 'D' is the default (see 'U')
make[1]: Leaving directory '/tmp/RtmpLrViE7/R.INSTALL4elb7a326107/httpuv/src/libuv'
gcc -std=gnu99 -I"/usr/share/R/include" -DNDEBUG -libuv/include -pthread -I"/usr/local/lib/R/site-library/Rcpp/include" -I"/usr/local/lib/R/site-library/later/include" -fvisibility=hidden -DSTRICT_R_HEADERS -fpic -g -O2 -fdebug-prefix-map=/build/r-base-tRgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c http-parser/http_parser.c -o http-parser/http_parser.o
gcc -std=gnu99 -I"/usr/share/R/include" -DNDEBUG -libuv/include -pthread -I"/usr/local/lib/R/site-library/Rcpp/include" -I"/usr/local/lib/R/site-library/later/include" -fvisibility=hidden -DSTRICT_R_HEADERS -fpic -g -O2 -fdebug-prefix-map=/build/r-base-tRgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c sha1/sha1.c -o sha1/sha1.o
g++ -std=gnu++11 -I"/usr/share/R/include" -DNDEBUG -libuv/include -pthread -I"/usr/local/lib/R/site-library/Rcpp/include" -I"/usr/local/lib/R/site-library/later/include" -fvisibility=hidden -DSTRICT_R_HEADERS -fpic -g -O2 -fdebug-prefix-map=/build/r-base-tRgc13/r-base-4.0.5=. -fstack-protector-strong -Wformat -Werror=format-security -Wdate-time -D_FORTIFY_SOURCE=2 -g -c base64/base64.cpp -o base64/base64.o
g++ -std=gnu++11 -shared -L/usr/lib/R/lib -Wl,-Bsymbolic-functions -Wl,-z,relro -o httpuv.so RcppExports-legacy.o RcppExports.o callb ack.o callbaqueue.o filedatasource-unix.o filedatasource-win.o fs.o http.o httprequest.o httpresponse.o httpuv.o md5.o mime.o set_i nvalid_parameter.o socket.o staticpath.o thread.o timegm.o utils.o uvutil.o webapplication.o websockets-base.o websockets-hixie76.o w ebsockets-hybi103.o websockets-ietf.o websockets.o winutils.o ./libuv.libs/libuv.a ./http-parser/http_parser.o ./sha1/sha1.o ./base64 /base64.o -pthread -L/usr/lib/R/lib -lR
installing to /usr/local/lib/R/site-library/00LOCK-httpuv/00new/httpuv/libs
** R
** demo
** byte-compile and prepare package for lazy loading
** help
*** installing help indices
** building package indices
** testing if installed package can be loaded from temporary location
** checking absolute paths in shared objects and dynamic libraries
** testing if installed package can be loaded from final location
** testing if installed package keeps a record of temporary installation path
* DONE (httpuv)
* installing 'source' package 'bslib' ...
** package 'bslib' successfully unpacked and MD5 sums checked
** using staged installation
** R
```

```
root@localhost:~/shiny_calidad
```

```
trying URL 'http://cran.rstudio.com/src/contrib/openssl_1.4.4.tar.gz'
Content type 'application/x-gzip' length 1311285 bytes (1.3 MB)
=====
downloaded 1.3 MB

trying URL 'http://cran.rstudio.com/src/contrib/prettyunits_1.1.1.tar.gz'
Content type 'application/x-gzip' length 10366 bytes (10 KB)
=====
downloaded 10 KB

trying URL 'http://cran.rstudio.com/src/contrib/xopen_1.0.0.tar.gz'
Content type 'application/x-gzip' length 11221 bytes (10 KB)
=====
downloaded 10 KB

trying URL 'http://cran.rstudio.com/src/contrib/brew_1.0-6.tar.gz'
Content type 'application/x-gzip' length 83315 bytes (81 KB)
=====
downloaded 81 KB

trying URL 'http://cran.rstudio.com/src/contrib/brio_1.1.2.tar.gz'
Content type 'application/x-gzip' length 12069 bytes (11 KB)
=====
downloaded 11 KB

trying URL 'http://cran.rstudio.com/src/contrib/praise_1.0.0.tar.gz'
Content type 'application/x-gzip' length 6100 bytes
=====
downloaded 6100 bytes

trying URL 'http://cran.rstudio.com/src/contrib/ps_1.6.0.tar.gz'
Content type 'application/x-gzip' length 119670 bytes (116 KB)
=====
downloaded 116 KB

trying URL 'http://cran.rstudio.com/src/contrib/waldo_0.2.5.tar.gz'
```

```
root@localhost:~/shiny_calidad
- preparing 'calidad':
  \ checking DESCRIPTION meta-information ...
  Warning: bad markup (extra space?) at ene.Rd:11:15
- checking for LF line-endings in source and make files and shell scripts
- checking for empty or unneeded directories
- building 'calidad_0.1.0.tar.gz'

Installing package into '/usr/local/lib/R/site-library'
(as 'lib' is unspecified)
* installing *source* package 'calidad' ...
** using staged installation
** R
** data
*** moving datasets to lazyload DB
** byte-compile and prepare package for lazy loading
** help
Warning: bad markup (extra space?) at ene.Rd:11:15
*** installing help indices
*** copying figures
** building package indices
** installing vignettes
** testing if installed package can be loaded from temporary location
** testing if installed package can be loaded from final location
** testing if installed package keeps a record of temporary installation path
* DONE (calidad)
>
>
Removing intermediate container c33a31a8187e
---> bf0def10ac7d
Step 8/12 : RUN mkdir /root/shiny_calidad
---> Running in fec5ed9f691a
Removing intermediate container fec5ed9f691a
---> 844b6a87bb2c
Step 9/12 : COPY R /root/shiny_calidad
---> 39f54dc08ed2
Step 10/12 : COPY Rprofile.site /usr/lib/R/etc/
COPY failed: file not found in build context or excluded by .dockerignore: stat Rprofile.site: file does not exist
[root@localhost shiny_calidad]#
```

En la ruta `HOME/USER/SP` crear los siguientes archivos, `Dockerfile`, `Application.yml`



```
root@localhost:/home/javila/sp
[root@localhost sp]# pwd
/home/javila/sp
[root@localhost sp]#
```

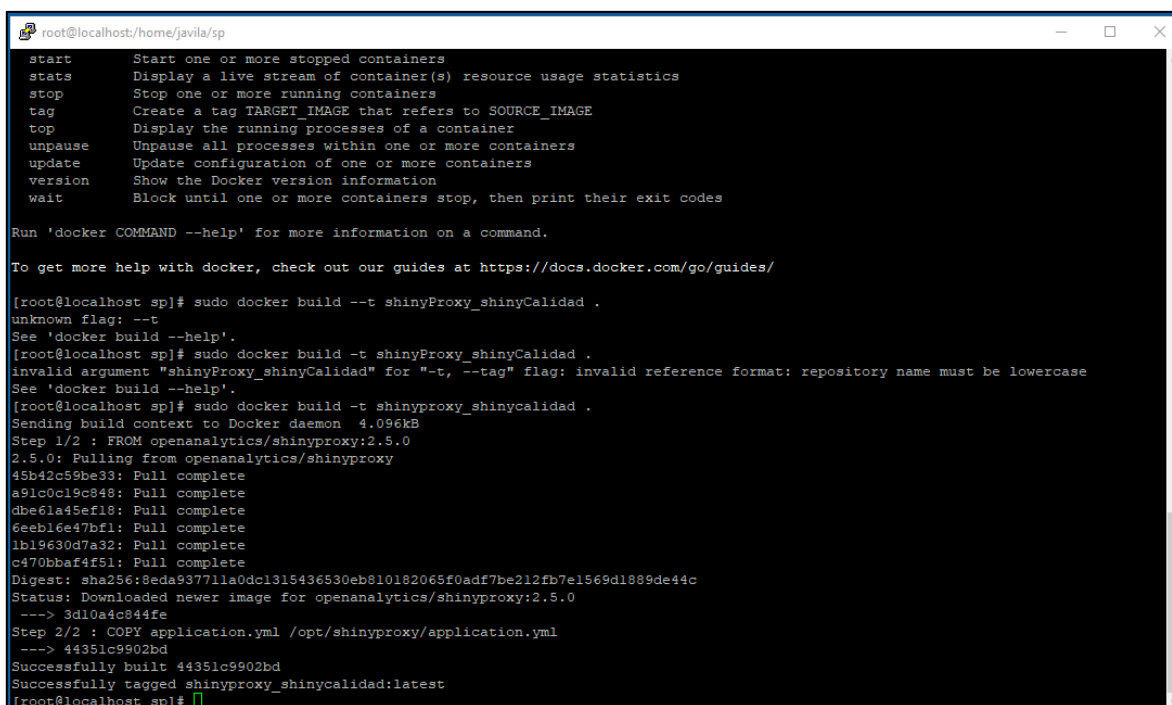
## Dockerfile

```
FROM openanalytics/shinyproxy:2.5.0
COPY application.yml /opt/shinyproxy/application.yml
```

## Application.yml

```
proxy:
  title: ShinyProxy con Shiny_Calidad - by jca
  logo-url: https://www.openanalytics.eu/shinyproxy/logo.png
  port: 8080
  authentication: simple
  admin-groups: admins
  users:
    - name: javila
      password: qlw2e3
      groups: admins
    - name: jeff
      password: password
  docker:
    internal-networking: true
  specs:
    - id: 01_hello
      display-name: Hello Application
      description: Application which demonstrates the basics of a
        Shiny app
      container-cmd: ["R", "-e", "shinyproxy::run_01_hello()"]
      container-image: openanalytics/shinyproxy-demo
      container-network: sp-example-net
    - id: 06_tabsets
      container-cmd: ["R", "-e", "shinyproxy::run_06_tabsets()"]
      container-image: openanalytics/shinyproxy-demo
      container-network: sp-example-net
    - id: 033_INE
      display-name: Shiny_Calidad INE
      description: Aplicacion INE
      container-cmd: ["R", "-e", "
shiny::runApp('/root/shiny_calidad_final')"]
      container-image: shiny_calidad
      container-network: sp-example-net
  logging:
    file:
      shinyproxy.log
```

Para crear la imagen final debemos ejecutar el siguiente comando



```
root@localhost:/home/javila/sp
start      Start one or more stopped containers
stats      Display a live stream of container(s) resource usage statistics
stop       Stop one or more running containers
tag        Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE
top        Display the running processes of a container
unpause    Unpause all processes within one or more containers
update     Update configuration of one or more containers
version    Show the Docker version information
wait       Block until one or more containers stop, then print their exit codes

Run 'docker COMMAND --help' for more information on a command.

To get more help with docker, check out our guides at https://docs.docker.com/go/guides/

[root@localhost sp]# sudo docker build --t shinyProxy_shinyCalidad .
unknown flag: --t
See 'docker build --help'.
[root@localhost sp]# sudo docker build -t shinyProxy_shinyCalidad .
invalid argument "shinyProxy_shinyCalidad" for "-t, --tag" flag: invalid reference format: repository name must be lowercase
See 'docker build --help'.
[root@localhost sp]# sudo docker build -t shinyproxy_shinycalidad .
Sending build context to Docker daemon  4.096kB
Step 1/2 : FROM openanalytics/shinyproxy:2.5.0
2.5.0: Pulling from openanalytics/shinyproxy
45b42c59be33: Pull complete
a91c0c19c848: Pull complete
dbe61a45ef18: Pull complete
6eeb16e47bf1: Pull complete
1b19630d7a32: Pull complete
c470bbaf4f51: Pull complete
Digest: sha256:8eda937711a0dc1315436530eb810182065f0adf7be212fb7e1569d1889de44c
Status: Downloaded newer image for openanalytics/shinyproxy:2.5.0
--> 3d10a4c844fe
Step 2/2 : COPY application.yml /opt/shinyproxy/application.yml
--> 44351c9902bd
Successfully built 44351c9902bd
Successfully tagged shinyproxy_shinycalidad:latest
[root@localhost sp]#
```

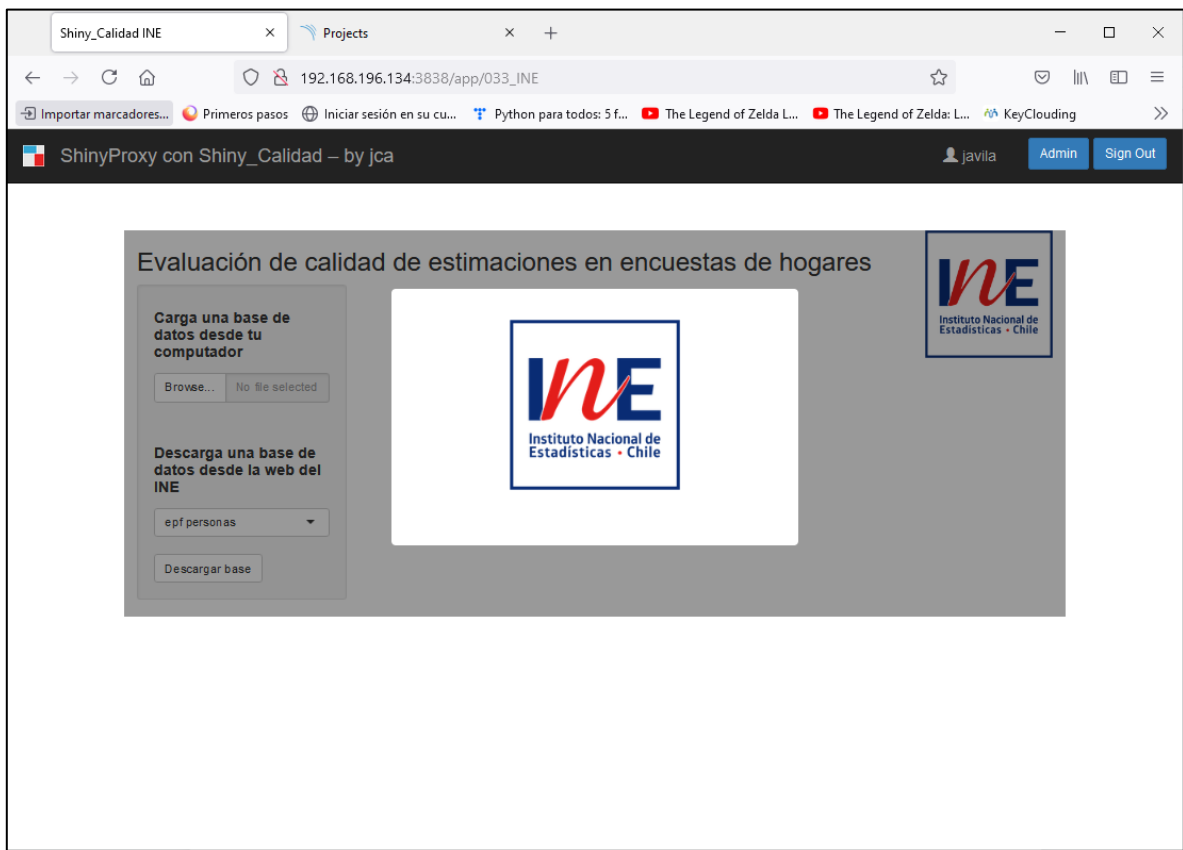
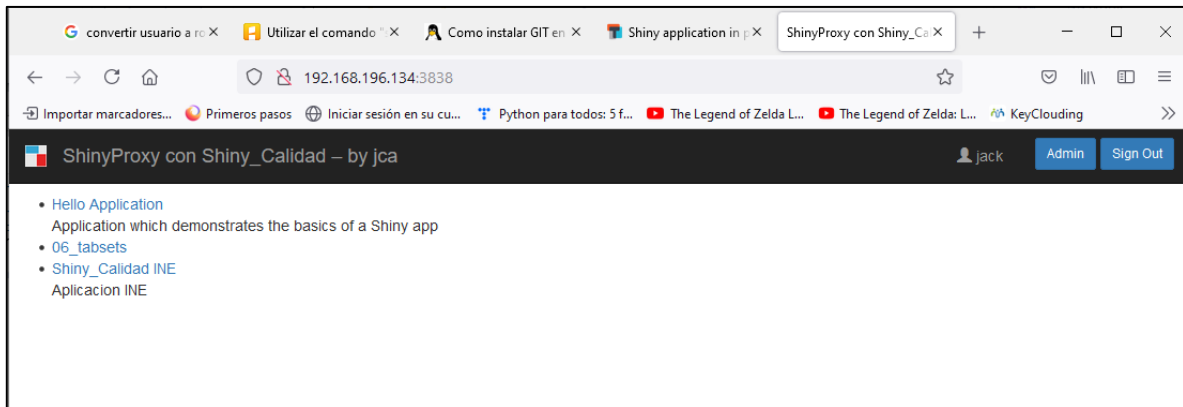
En el directorio SP ejecutar el siguiente comando para levantar la solución

```
$ docker build -t shinyproxy_shinycalidad .
```

```
$ sudo docker network create sp-example-net
```

```
$ sudo docker run -v /var/run/docker.sock:/var/run/docker.sock:ro --
group-add $(getent group docker | cut -d: -f3) --net sp-example-net -p
3838:8080 shinyproxy_shinycalidad
```





### 3. BIBLIOGRAFIA DE RECURSOS

Images Docker <https://hub.docker.com/search?q=shinyproxy&type=image>