

Despliegue aplicaciones web - Anton Blagodarnyy

Tarea 2 _ Tema 2

1.-Creamos la imagen de debian.

```
ubuntu@ubuntu2204: ~$ cat /etc/landscape/landscape.conf
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/pro

System information as of Tue Dec 3 07:11:33 PM UTC 2024

System load: 0.18      Processes:           130
Usage of /: 7.0% of 97.87GB   Users logged in:    1
Memory usage: 14%      IPv4 address for enp0s3: 10.0.2.15
Swap usage: 0%

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
just raised the bar for easy, resilient and secure K8s cluster deployment

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

14 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update
New release '24.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Tue Dec 3 19:08:44 2024
ubuntu@ubuntu2204:~$ docker run -it --name developer-container debian:bullseye
Unable to find image 'debian:bullseye' locally
bullseye: Pulling from library/debian
cd606f6f489e: Pull complete
Digest: sha256:e91d1b0684e0f26a29c2353c52d4814f4d153e10b1faddf9fbde473ed71e2fcf
Status: Downloaded newer image for debian:bullseye
root@84df6de8597c:/#
```

2.-Actualizamos debian.

```
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Digest: sha256:e91d1b0684e0f26a29c2353c52d4814f4d153e10b1faddf9fbde473ed71e2fcf
Status: Downloaded newer image for debian:bullseye
root@84df6de8597c:/# apt-get update && apt-get upgrade -y
Get:1 http://deb.debian.org/debian bullseye InRelease [116 kB]
Get:2 http://deb.debian.org/debian-security bullseye-security InRelease [27.2 kB]
Get:3 http://deb.debian.org/debian bullseye-updates InRelease [44.1 kB]
Get:4 http://deb.debian.org/debian bullseye/main amd64 Packages [8066 kB]
Get:5 http://deb.debian.org/debian-security bullseye-security/main amd64 Packages [317 kB]
Get:6 http://deb.debian.org/debian bullseye-updates/main amd64 Packages [18.8 kB]
Fetched 8589 kB in 4s (2021 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@84df6de8597c:/#
```

3.-Instalamos jdk, bim y nano.

```
ubuntu@ubuntu2204: ~$ sudo apt-get install ca-certificates
Adding debian:GlobalSign_Root_CA_-_R2.pem
Adding debian:certSIGN_Root_CA.pem
Adding debian:IdenTrust_Commercial_Root_CA_1.pem
Adding debian:ISRG_Root_X1.pem
Adding debian:GlobalSign_Root_CA_-_R3.pem
Adding debian:Go_Daddy_Class_2_CA.pem
Adding debian:TUBITAK_Kamu_SM_SSL_Kok_Sertififikasi_-_Surum_1.pem
Adding debian:Atos_TrustedRoot_2011.pem
Adding debian:Go_Daddy_Root_Certificate_Authority_-_G2.pem
Adding debian:UCA_Global_G2_Root.pem
Adding debian:EC-ACC.pem
Adding debian:TeliaSonera_Root_CA_v1.pem
Adding debian:QuoVadis_Root_CA.pem
Adding debian:QuoVadis_Root_CA_1_G3.pem
Adding debian:GlobalSign_ECC_Root_CA_-_R4.pem
Adding debian:Entrust_Root_Certification_Authority.pem
Adding debian:Hongkong_Post_Root_CA_3.pem
Adding debian:emSign_Root_CA_-_C1.pem
Adding debian:Izenpe.com.pem
Adding debian:SSL.com_EV_Root_Certification_Authority_RSA_R2.pem
Adding debian:SZAFIR_ROOT_CA2.pem
Adding debian:Trustwave_Global_Certification_Authority.pem
Adding debian:emSign_ECC_Root_CA_-_G3.pem
Adding debian:Network_Solutions_Certificate_Authority.pem
Adding debian:AffirmTrust_Commercial.pem
Adding debian:DigiCert_Assured_ID_Root_G3.pem
Adding debian:GTS_Root_R3.pem
Adding debian:Global_Chambersign_Root_-_2008.pem
Adding debian:DigiCert_High_Assurance_EV_Root_CA.pem
Adding debian:AffirmTrust_Premium.pem
Adding debian:TWCA_Global_Root_CA.pem
Adding debian:emSign_ECC_Root_CA_-_C3.pem
Adding debian:Microsec_e-Szigno_Root_CA_2009.pem
done.
Processing triggers for libc-bin (2.31-13+deb11u1) ...
Processing triggers for ca-certificates (20210119) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d...
done.
root@84df6de8597c:/# apt-get install -y openjdk-11-jdk vim nano
```

4.-Comprobamos la versión de java.

```
root@84df6de8597c:/# java -version
openjdk version "11.0.25" 2024-10-15
OpenJDK Runtime Environment (build 11.0.25+9-post-Debian-1deb11u1)
OpenJDK 64-Bit Server VM (build 11.0.25+9-post-Debian-1deb11u1, mixed mode,
sharing)
root@84df6de8597c:/#
```

5.-La versión de vim.

```
ubuntu@ubuntu2204: ~$ vim --version
VIM - Vi IMproved 8.2 (2019 Dec 12, compiled Oct 01 2021 01:51:08)
Included patches: 1-2434
Extra patches: 8.2.3402, 8.2.3403, 8.2.3409, 8.2.3428
Modified by team+vim@tracker.debian.org
Compiled by team+vim@tracker.debian.org
Huge version without GUI.  Features included (+) or not (-):
+acl                -farsi              +mouse_sgr          +tag_binary
+arabic             +file_in_path       -mouse_sysmouse     -tag_old_static
+autocmd            +find_in_path       +mouse_urxvt        -tag_any_white
+autochdir          +float              +mouse_xterm        -tcl
-autoservername     +folding            +multi_byte         +termguicolors
-balloon_eval       -footer             +multi_lang         +terminal
+balloon_eval_term +fork()             -mzscheme           +terminfo
-browse             +gettext            +netbeans_intg      +termresponse
++builtin_terms     -hangul_input       +num64              +textobjects
+byte_offset        +iconv              +packages           +textprop
+channel            +insert_expand      +path_extra         +timers
+cindent            +ipv6               -perl               +title
-clientserver       +job                +persistent_undo    -toolbar
-clipboard          +jumplist           +popupwin           +user_commands
+cmdline_compl      +keymap             +postscript         +varargs
+cmdline_hist       +lambda             +printer            +vertspl
+cmdline_info       +langmap            +profile            +virtualedit
+comments           +libcall            -python             +visual
+conceal            +linebreak          -python3            +visualextra
+cryptv            +lispindent         +quickfix           +viminfo
+cscope            +listcmds           +reltime            +vreplace
+cursorbind         +localmap           +rightleft          +wildignore
+cursorshape        -lua                -ruby               +wildmenu
+dialog_con         +menu               +scrollbind         +windows
+diff              +mksession           +signs              +writebackup
+digraphs           +modify_fname       +smartindent        -X11
-dnd                +mouse              -sound              -xfontset
-ebcdic            -mouseshape         +spell              -xim
+emacs_tags         +mouse_dec          +startuptime        -xpm
+eval              +mouse_gpm          +statusline         -xsm
+ex_extra           -mouse_jsbterm      -sun_workshop        +xterm_clipboard
+extra_search       +mouse_netterm      +syntax             -xterm_save

system vimrc file: "$VIM/vimrc"
user vimrc file: "$HOME/.vimrc"
2nd user vimrc file: "~/.vim/vimrc"
user exrc file: "$HOME/.exrc"
```

6.-Y la versión de nano.

```
ubuntu@ubuntu2204: ~$ nano --version
GNU nano, version 5.4
(C) 1999-2011, 2013-2020 Free Software Foundation, Inc.
(C) 2014-2020 the contributors to nano
Compiled options: --disable-libmagic --enable-utf8
root@84df6de8597c:/# nano --version
+balloon_eval_term +fork()             -mzscheme           +terminfo
-browse             +gettext            +netbeans_intg      +termresponse
++builtin_terms     -hangul_input       +num64              +textobjects
+byte_offset        +iconv              +packages           +textprop
+channel            +insert_expand      +path_extra         +timers
+cindent            +ipv6               -perl               +title
-clientserver       +job                +persistent_undo    -toolbar
-clipboard          +jumplist           +popupwin           +user_commands
+cmdline_compl      +keymap             +postscript         +varargs
+cmdline_hist       +lambda             +printer            +vertspl
+cmdline_info       +langmap            +profile            +virtualedit
+comments           +libcall            -python             +visual
+conceal            +linebreak          -python3            +visualextra
+cryptv            +lispindent         +quickfix           +viminfo
+cscope            +listcmds           +reltime            +vreplace
+cursorbind         +localmap           +rightleft          +wildignore
+cursorshape        -lua                -ruby               +wildmenu
+dialog_con         +menu               +scrollbind         +windows
+diff              +mksession           +signs              +writebackup
+digraphs           +modify_fname       +smartindent        -X11
-dnd                +mouse              -sound              -xfontset
-ebcdic            -mouseshape         +spell              -xim
+emacs_tags         +mouse_dec          +startuptime        -xpm
+eval              +mouse_gpm          +statusline         -xsm
+ex_extra           -mouse_jsbterm      -sun_workshop        +xterm_clipboard
+extra_search       +mouse_netterm      +syntax             -xterm_save

system vimrc file: "$VIM/vimrc"
user vimrc file: "$HOME/.vimrc"
2nd user vimrc file: "~/.vim/vimrc"
user exrc file: "$HOME/.exrc"
defaults file: "$VIMRUNTIME/defaults.vim"
fall-back for $VIM: "/usr/share/vim"
Compilation: gcc -c -I. -Iproto -DHAVE_CONFIG_H -Wdate-time -g -O2 -ffile-
efix-map=/build/vim-DtwDbo/vim-8.2.2434=. -fstack-protector-strong -Wformat
-Werror=format-security -U_FORTIFY_SOURCE -D_FORTIFY_SOURCE=1
Linking: gcc -Wl,-z,relro -Wl,-z,now -Wl,--as-needed -o vim -lm -ltinfo -lse
Linux -lacl -lattr -lgpm -ldl
root@84df6de8597c:/# nano --version
GNU nano, version 5.4
(C) 1999-2011, 2013-2020 Free Software Foundation, Inc.
(C) 2014-2020 the contributors to nano
Compiled options: --disable-libmagic --enable-utf8
root@84df6de8597c:/#
```

7.-Salimos de la imagen de debian.

```
ubuntu@ubuntu-server2204: ~$ exit
root@84df6de8597c:/# exit
exit
ubuntu@ubuntu-server2204:~$
```

8.-Hacemos un commit de la imagen.

```
ubuntu@ubuntu-server2204: ~$ exit
root@84df6de8597c:/# exit
exit
ubuntu@ubuntu-server2204:~$ docker commit developer-container tu_usuario_dock
erhub/developer:1.0
sha256:b8c997d9a9b1bcd236ed08b9d4b207bb2691ac191b1c3d74249454a1ca431632
ubuntu@ubuntu-server2204:~$ docker commit developer-container antonBlagodarny
y/developer:1.0
sha256:b84c5d9d752e6ca716fde96c08b66a7b04ddbaff3265e513d7241c4a4d3c93a6
ubuntu@ubuntu-server2204:~$
```

9.-Nos logueamos en docker.

```
ubuntu@ubuntu2204:~$ exit
exit
ubuntu@ubuntu2204:~$ docker commit developer-container tu_usuario_dock
erhub/developer:1.0
sha256:b8c997d9a9b1bcd236ed08b9d4b207bb2691ac191b1c3d74249454a1ca431632
ubuntu@ubuntu2204:~$ docker commit developer-container antonBlagodarnyy
y/developer:1.0
sha256:b84c5d9d752e6ca716fde96c08b66a7b04ddbaff3265e513d7241c4a4d3c93a6
ubuntu@ubuntu2204:~$ docker login

USING WEB-BASED LOGIN
To sign in with credentials on the command line, use 'docker login -u <usern
ame>'

Your one-time device confirmation code is: XPZT-PMGB
Press ENTER to open your browser or submit your device code here: https://lo
gin.docker.com/activate

Waiting for authentication in the browser...

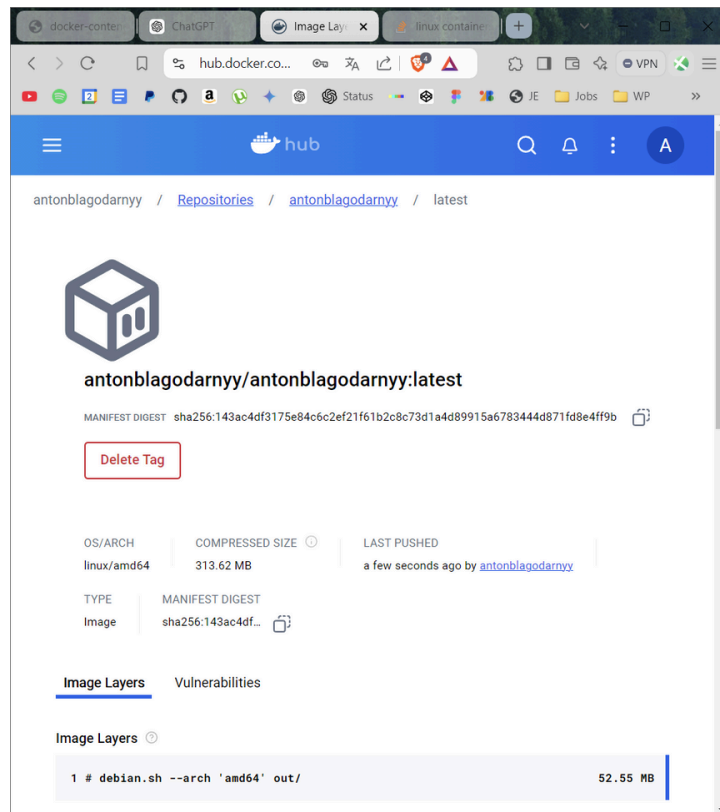
WARNING! Your password will be stored unencrypted in /home/ubuntu/.docker/co
nfig.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credential-store
s

Login Succeeded
ubuntu@ubuntu2204:~$ |
```

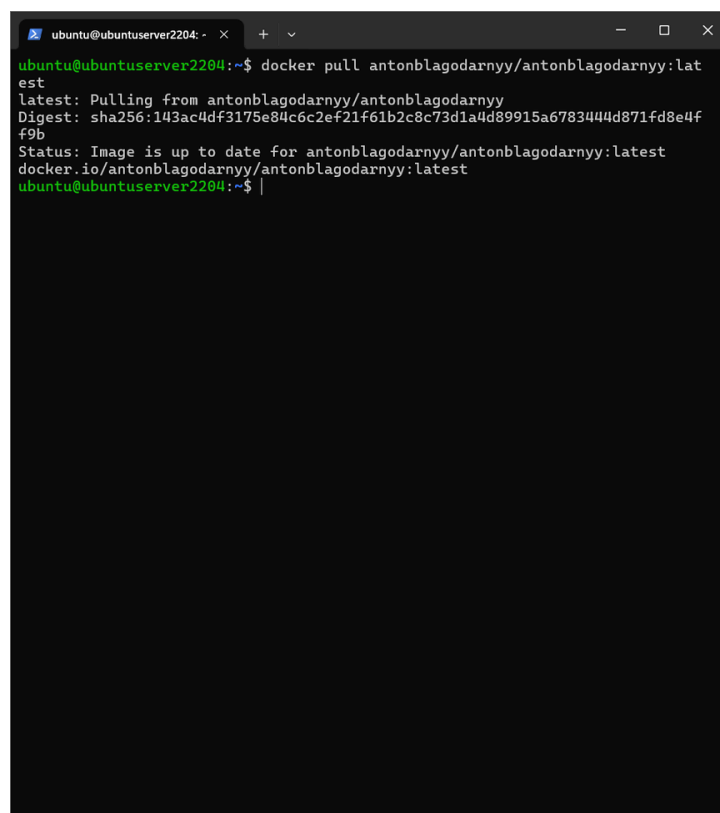
10.-Hacemos el push del commit.

```
ubuntu@ubuntu2204:~$ docker push antonblagodarnyy/antonblagodarnyy:1.0
The push refers to repository [docker.io/antonblagodarnyy/antonblagodarnyy]
An image does not exist locally with the tag: antonblagodarnyy/antonblagodar
nyy
ubuntu@ubuntu2204:~$ docker push antonblagodarnyy/developer:1.0
The push refers to repository [antonblagodarnyy/developer]
Get "https://antonblagodarnyy/v2/": dial tcp: lookup antonBlagodarnyy on 127
.0.0.53: server misbehaving
ubuntu@ubuntu2204:~$ docker push antonblagodarnyy/developer:1.0
The push refers to repository [antonblagodarnyy/developer]
Get "https://antonblagodarnyy/v2/": dial tcp: lookup antonBlagodarnyy on 127
.0.0.53: server misbehaving
ubuntu@ubuntu2204:~$ docker tag antonblagodarnyy/developer antonblagodar
nyy/antonblagodarnyy
Error response from daemon: No such image: antonblagodarnyy/developer:latest
ubuntu@ubuntu2204:~$ docker tag antonblagodarnyy/developer:1.0 antonbl
agodarnyy/antonblagodarnyy
ubuntu@ubuntu2204:~$ docker images
REPOSITORY          TAG             IMAGE ID        CREATED
SIZE
antonblagodarnyy/developer    1.0            b84c5d9d752e   19 minutes ago
726MB
antonblagodarnyy/antonblagodarnyy  latest        b84c5d9d752e   19 minutes ago
726MB
tu_usuario_dockerhub/developer    1.0            b8c997d9a9b1   20 minutes ago
726MB
debian                    bullseye       ab22521fee6a   44 hours ago
124MB
ubuntu                    latest         fec8bfd95b54   6 weeks ago
78.1MB
ubuntu@ubuntu2204:~$ docker push antonblagodarnyy/antonblagodarnyy:1.0
The push refers to repository [docker.io/antonblagodarnyy/antonblagodarnyy]
tag does not exist: antonblagodarnyy/antonblagodarnyy:1.0
ubuntu@ubuntu2204:~$ docker push antonblagodarnyy/antonblagodarnyy:lat
est
The push refers to repository [docker.io/antonblagodarnyy/antonblagodarnyy]
98036f6e53bd: Pushed
7b329afd97eb: Pushed
latest: digest: sha256:143ac4df3175e84c6c2ef21f61b2c8c73d1a4d89915a6783444d8
71fd8e4ff9b size: 742
ubuntu@ubuntu2204:~$ |
```

11.-Comprobamos que se ha subido.



12.-Hacemos un pull del repositorio.



13.-Ejecutamos el contenedor y escribimos con nano un programa java.

```
ubuntu@ubuntu2204: ~$ docker pull antonblagodarnyy/antonblagodarnyy:latest
latest: Pulling from antonblagodarnyy/antonblagodarnyy
Digest: sha256:143ac4df3175e84c6c2ef21f61b2c8c73d1a4d89915a678344d871fd8e4ff9b
Status: Image is up to date for antonblagodarnyy/antonblagodarnyy:latest
ubuntu@ubuntu2204: ~$ docker run -it antonblagodarnyy/antonblagodarnyy:latest
root@90c80bfa9db6:/# nano HolaMundo.java
root@90c80bfa9db6:/#
```

14.-Con javac compilamos el programa y lo lanzamos con java. Al principio el programa dio error por tener caracteres no validos. Una vez corregido se ejecuta!

```
ubuntu@ubuntu2204: ~$ docker pull antonblagodarnyy/antonblagodarnyy:latest
latest: Pulling from antonblagodarnyy/antonblagodarnyy
Digest: sha256:143ac4df3175e84c6c2ef21f61b2c8c73d1a4d89915a678344d871fd8e4ff9b
Status: Image is up to date for antonblagodarnyy/antonblagodarnyy:latest
ubuntu@ubuntu2204: ~$ docker run -it antonblagodarnyy/antonblagodarnyy:latest
root@90c80bfa9db6:/# nano HolaMundo.java
root@90c80bfa9db6:/# javac HolaMundo.java
HolaMundo.java:3: error: unmappable character (0xC2) for encoding US-ASCII
    System.out.println("??Hola, Mundo!");
                        ^
HolaMundo.java:3: error: unmappable character (0xA1) for encoding US-ASCII
    System.out.println("??Hola, Mundo!");
                        ^
2 errors
root@90c80bfa9db6:/# nano HolaMundo.java
root@90c80bfa9db6:/# javac HolaMundo.java
root@90c80bfa9db6:/# java HolaMundo
HolaMundo!
root@90c80bfa9db6:/#
```