Actividad 7

Tejera Santana Adoney

Actividad N.º 7 – 2ºA DAW

Curso 2024/2025

Índice

Descripción detallada de los trabajos realizados.....3

1 Realizar la instalación y configuración básica de Wildfly de acuerdo al documento que se adjunta en la actividad sobre Instalación de Wildfly.....3

1.1 Instalación WildFly.....3

1.2 Configurar Systemd.....7

1.3 Ajustar Firewall.....10

1.4 Configurar la Autenticación de WildFly.....11

1.5 Línea de Comandos (Command-Line Interface, CLI).....14

1.6 Interfaz Web.....15

2 Cargar una aplicación en Wildfly. Buscar la aplicación en Internet y desplegarla en el servidor JBoss/Wildfly. En el siguiente enlace hay un repositorio con aplicaciones para JBoss/Wildfly:.....19

Herramientas empleadas.....21

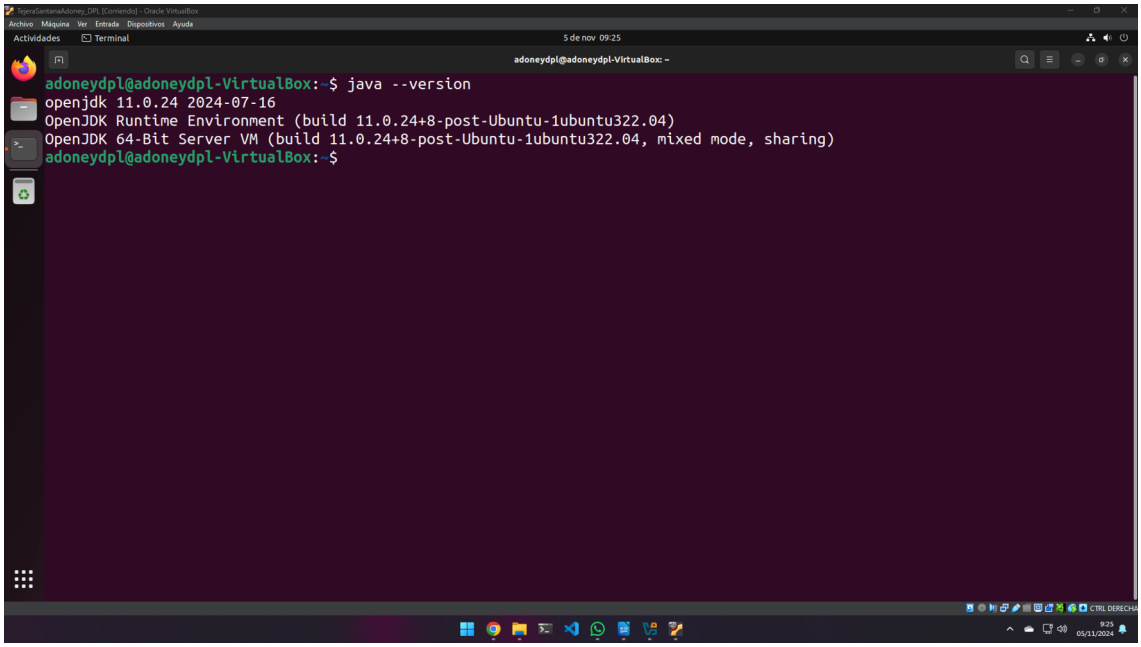
Problemática encontrada y solución.....22

Conclusiones.....22

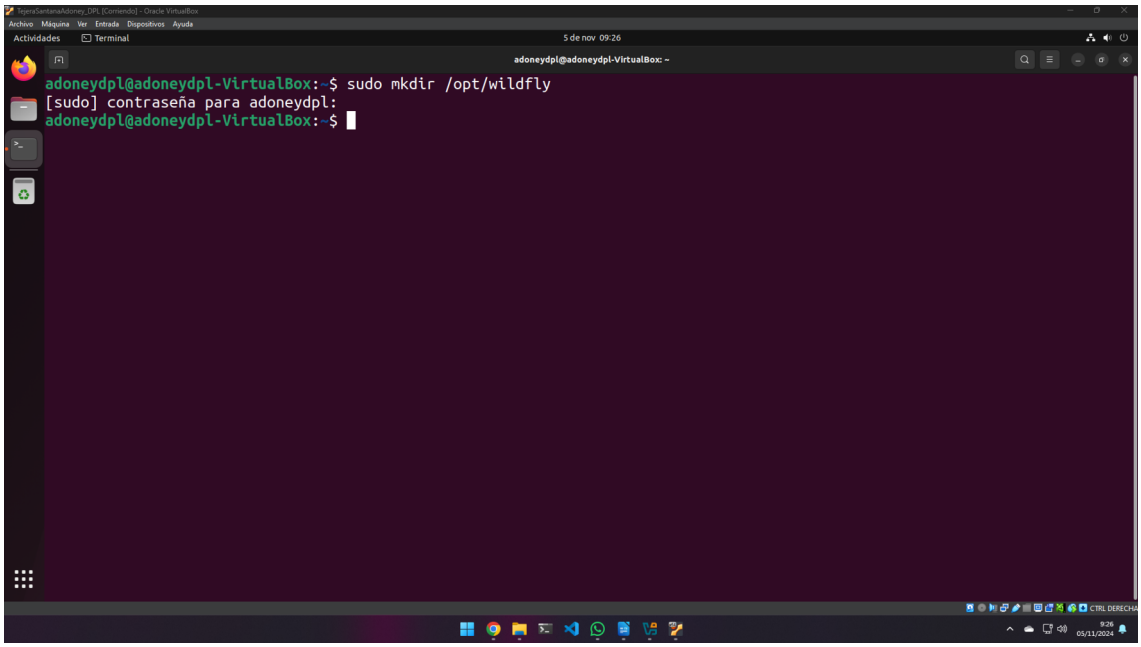
Descripción detallada de los trabajos realizados

1 Realizar la instalación y configuración básica de Wildfly de acuerdo al documento que se adjunta en la actividad sobre Instalación de Wildfly.

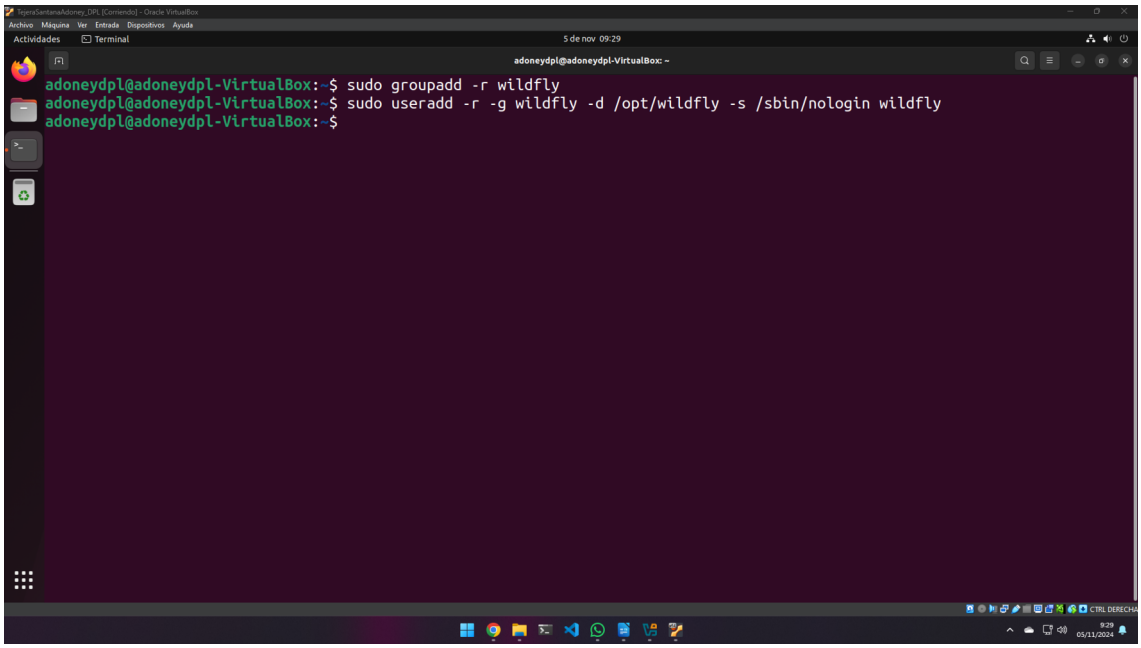
1.1 Instalación WildFly.



Se comprueba la versión de java.



Se crea la carpeta donde se alojará la estructura de WildFly.



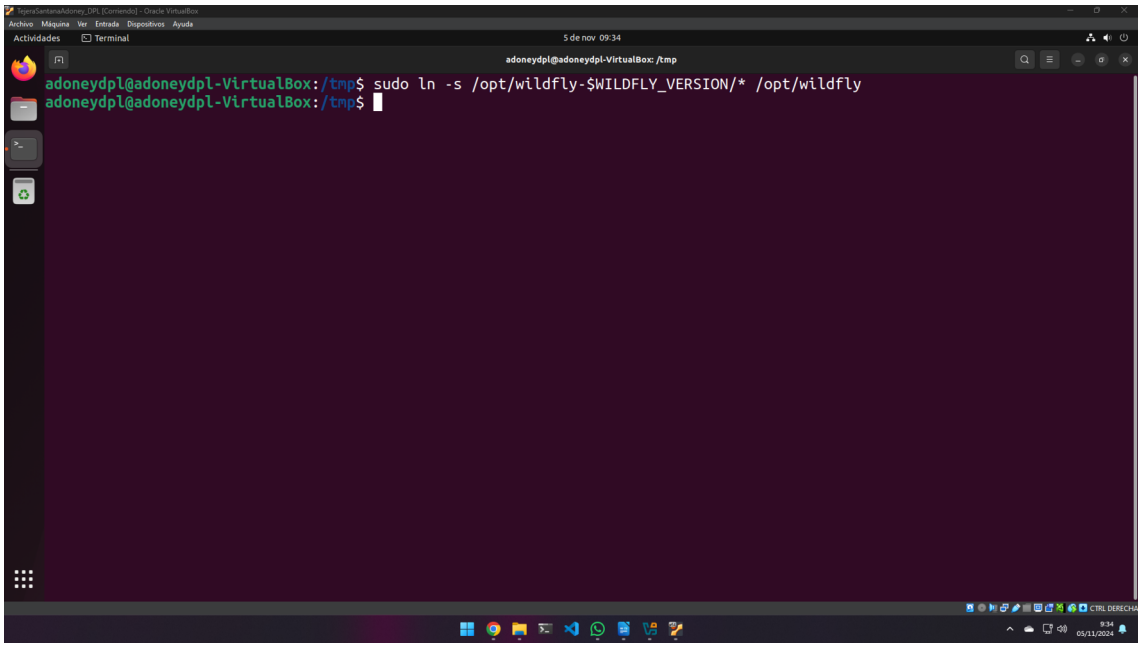
Se crea el grupo y usuario de WildFly, cuyo directorio de inicio será la carpeta creada anteriormente.

```
adoneydpl@adoneydpl-VirtualBox:~$ WILDFLY_VERSION=25.0.1.Final
adoneydpl@adoneydpl-VirtualBox:~$ wget https://github.com/wildfly/wildfly/releases/download/$WILDFLY_VERSION/wildfly-$WILD
FLY_VERSION.tar.gz -P /tmp
--2024-11-05 09:33:05--  https://github.com/wildfly/wildfly/releases/download/25.0.1.Final/wildfly-25.0.1.Final.tar.gz
Resolviendo github.com (github.com)... 140.82.121.4
Conectando con github.com (github.com)[140.82.121.4]:443... conectado.
Petición HTTP enviada, esperando respuesta... 302 Found
Ubicación: https://objects.githubusercontent.com/github-production-release-asset-2e65be/764708/c3db3830-695f-4967-898e-1bf
915eb2476?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20241105%2Fus-east-1%2Fs3%2Faws4_requ
est&X-Amz-Date=20241105T093306Z&X-Amz-Expires=300&X-Amz-Signature=0b6aefab9157d4d18532bc87a7c6d42b9c56c5ef77af2833892b6985
ca112979&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dwildfly-25.0.1.Final.tar.gz&resp
onse-content-type=application%2Foctet-stream [siguiente]
--2024-11-05 09:33:05--  https://objects.githubusercontent.com/github-production-release-asset-2e65be/764708/c3db3830-695f
-4967-898e-1bf915eb2476?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20241105%2Fus-east-1%2F
s3%2Faws4_request&X-Amz-Date=20241105T093306Z&X-Amz-Expires=300&X-Amz-Signature=0b6aefab9157d4d18532bc87a7c6d42b9c56c5ef77
af2833892b6985ca112979&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dwildfly-25.0.1.Fin
al.tar.gz&response-content-type=application%2Foctet-stream
Resolviendo objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.110.133, 185.199.111.133, 185.199.108
.133, ...
Conectando con objects.githubusercontent.com (objects.githubusercontent.com)[185.199.110.133]:443... conectado.
Petición HTTP enviada, esperando respuesta... 200 OK
Longitud: 220115626 (210M) [application/octet-stream]
Guardando como: '/tmp/wildfly-25.0.1.Final.tar.gz'

wildfly-25.0.1.Final.tar.gz      0%[                                                    ] 438,99K  2,14MB/s
```

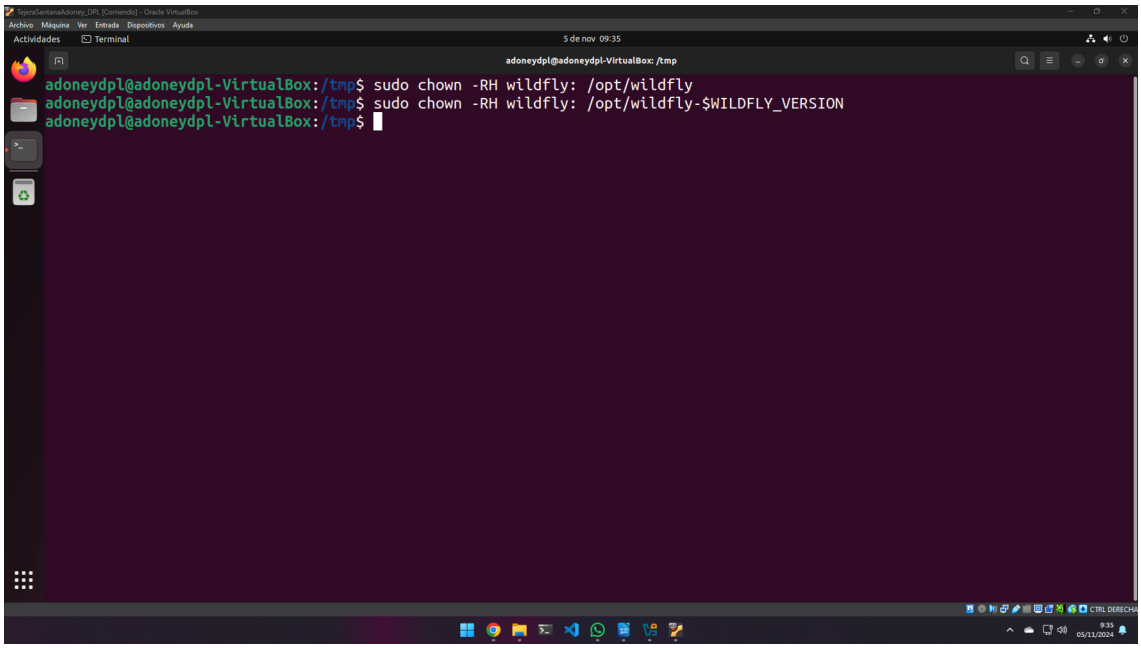
Se comienza el proceso de instalación de WildFly, se empieza descargando el repositorio.

```
adoneydpl@adoneydpl-VirtualBox:~$ cd /tmp
adoneydpl@adoneydpl-VirtualBox:/tmp$ ls
hsperfdata_adoneydpl
hsperfdata_tomcat
snap-private-tmp
systemd-private-1585f9c9799a4924a7a593399ab6daa2-apache2.service-jIwSxz
systemd-private-1585f9c9799a4924a7a593399ab6daa2-colord.service-puUkEQ
systemd-private-1585f9c9799a4924a7a593399ab6daa2-ModemManager.service-QlKsHc
systemd-private-1585f9c9799a4924a7a593399ab6daa2-power-profiles-daemon.service-3phw7c
systemd-private-1585f9c9799a4924a7a593399ab6daa2-switcheroo-control.service-NS2H9l
systemd-private-1585f9c9799a4924a7a593399ab6daa2-systemd-logind.service-hZpgyL
systemd-private-1585f9c9799a4924a7a593399ab6daa2-systemd-oomd.service-2CEf7k
systemd-private-1585f9c9799a4924a7a593399ab6daa2-systemd-resolved.service-8Q1QB0
systemd-private-1585f9c9799a4924a7a593399ab6daa2-upower.service-6jT8sY
VMwareDnD
wildfly-25.0.1.Final.tar.gz
adoneydpl@adoneydpl-VirtualBox:/tmp$ sudo tar xf /tmp/wildfly-$WILDFLY_VERSION.tar.gz -C /opt/
adoneydpl@adoneydpl-VirtualBox:/tmp$
```

Se extrae el fichero que se ha descargado.

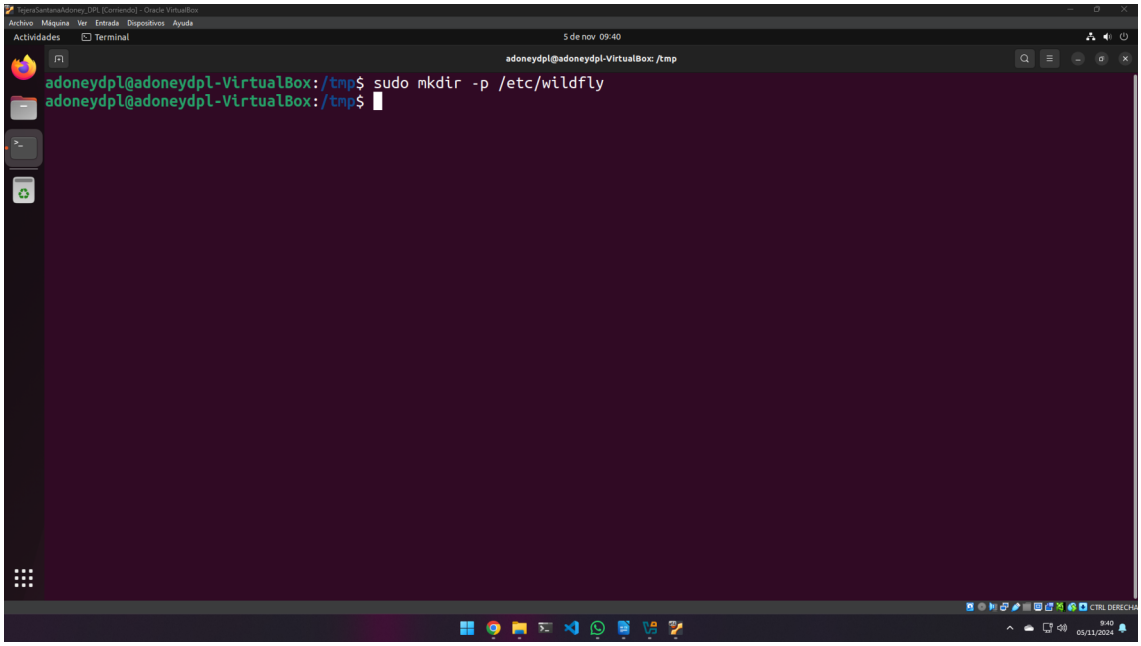


Se crea un enlace simbólico a wildfly que apuntará al directorio de instalación de WildFly.

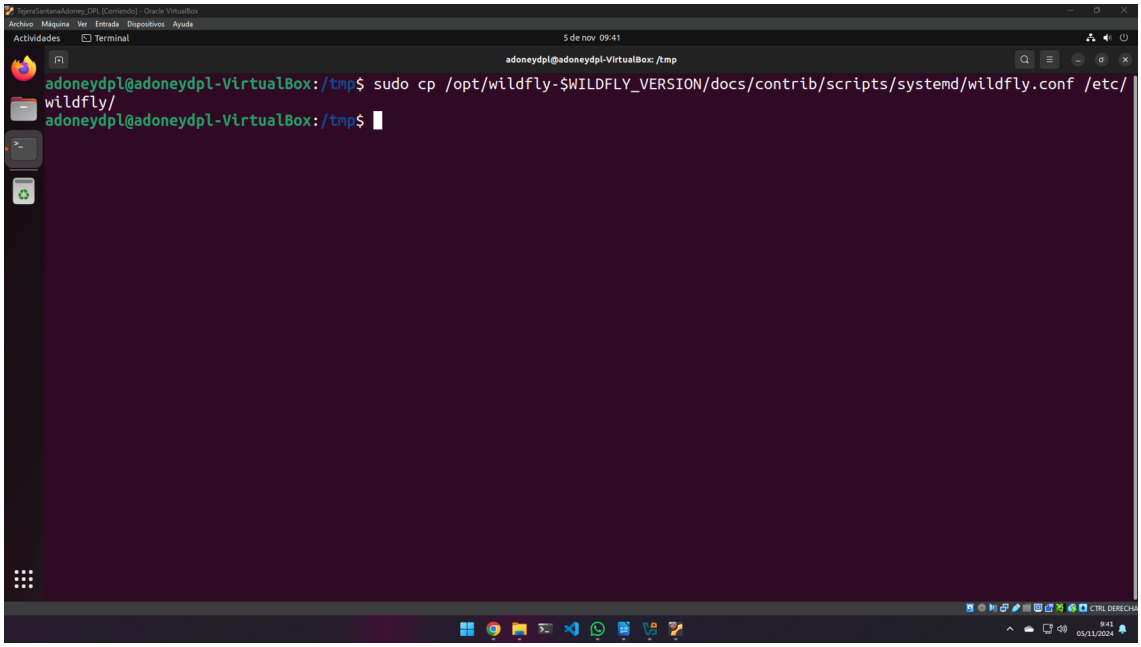


Se modifica al propietario de la carpeta de inicio del usuario WildFly creado al inicio.

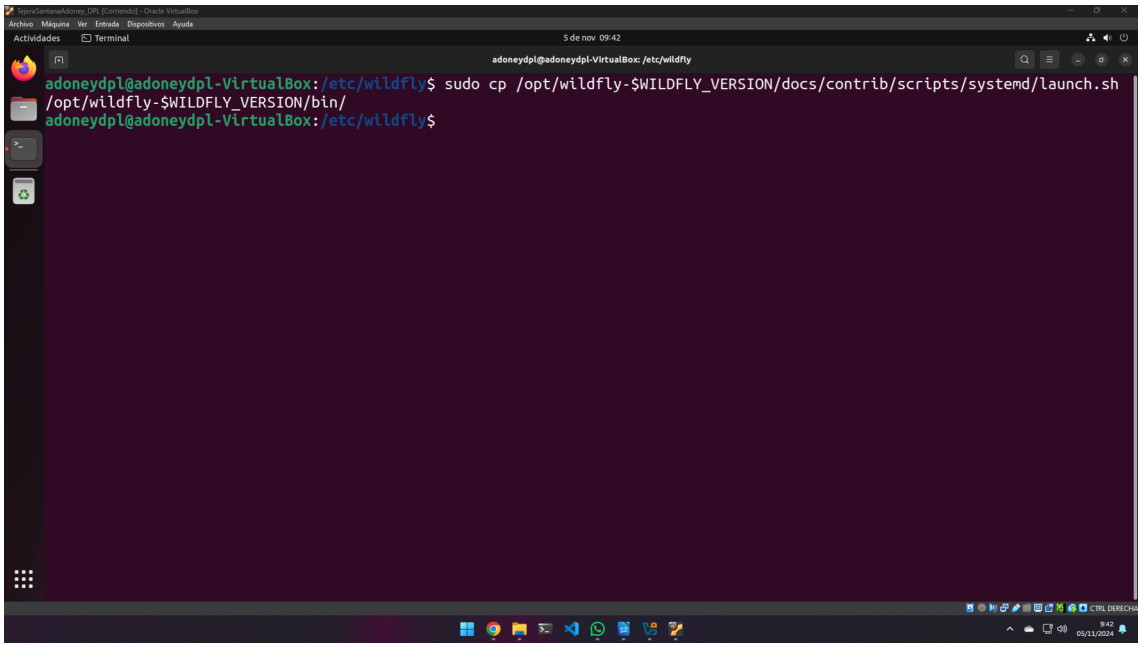
1.2 Configurar Systemd



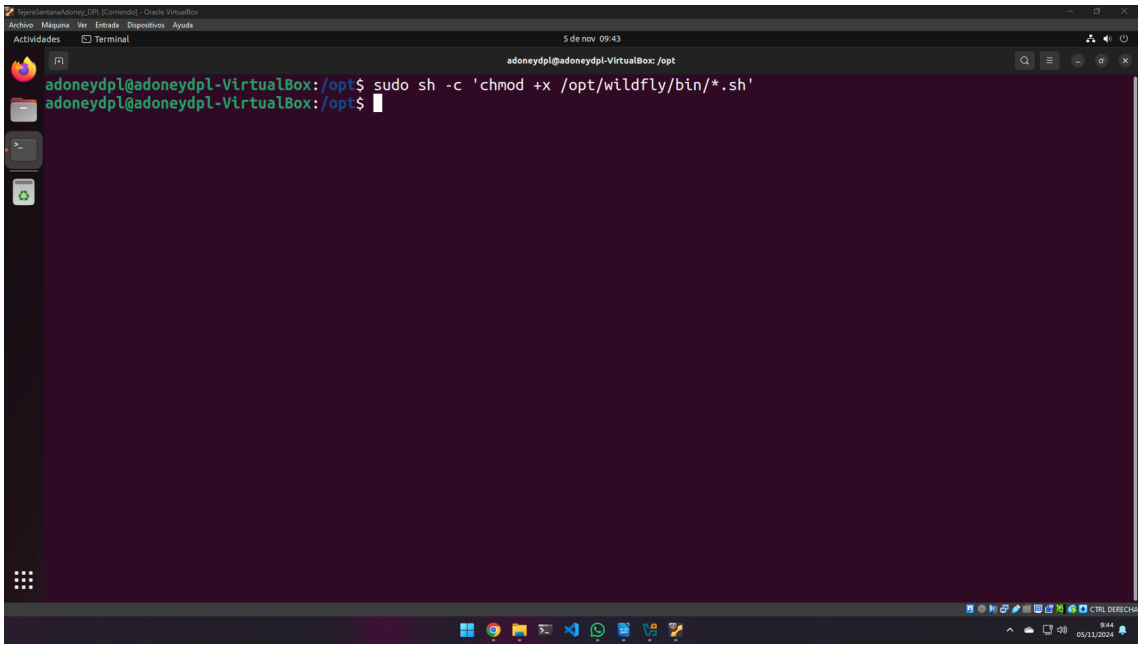
Se comienza creando la carpeta de configuración de WildFly.



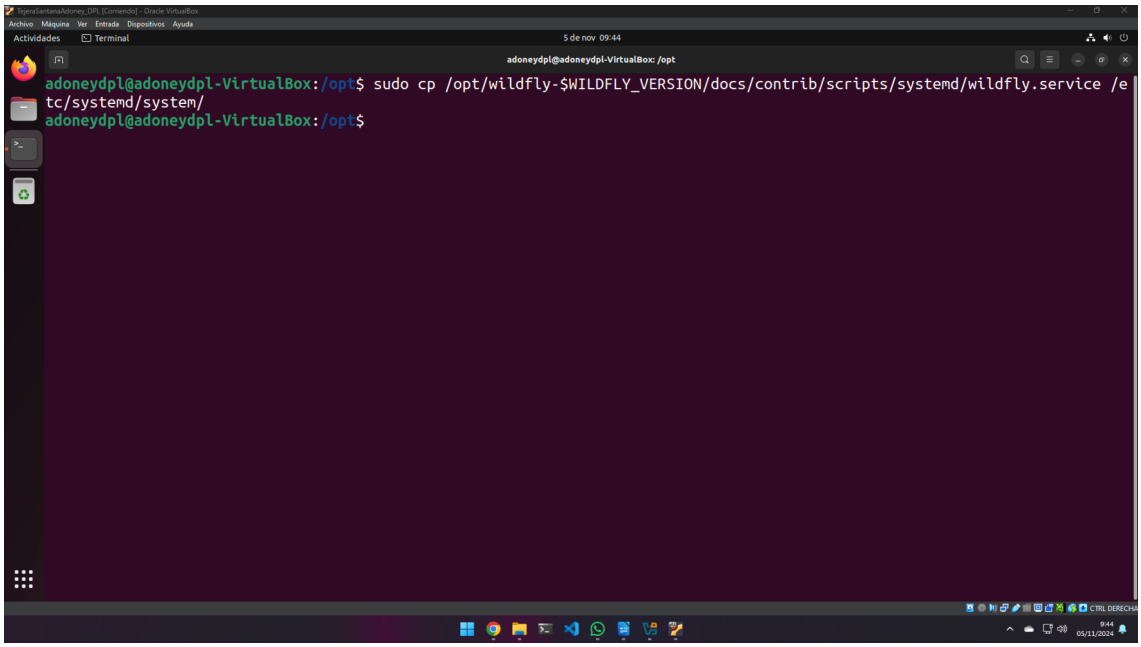
La configuración de WildFly se alojó automáticamente en el directorio de inicio del usuario, se copiará a la carpeta de configuración que se ha creado justo antes.



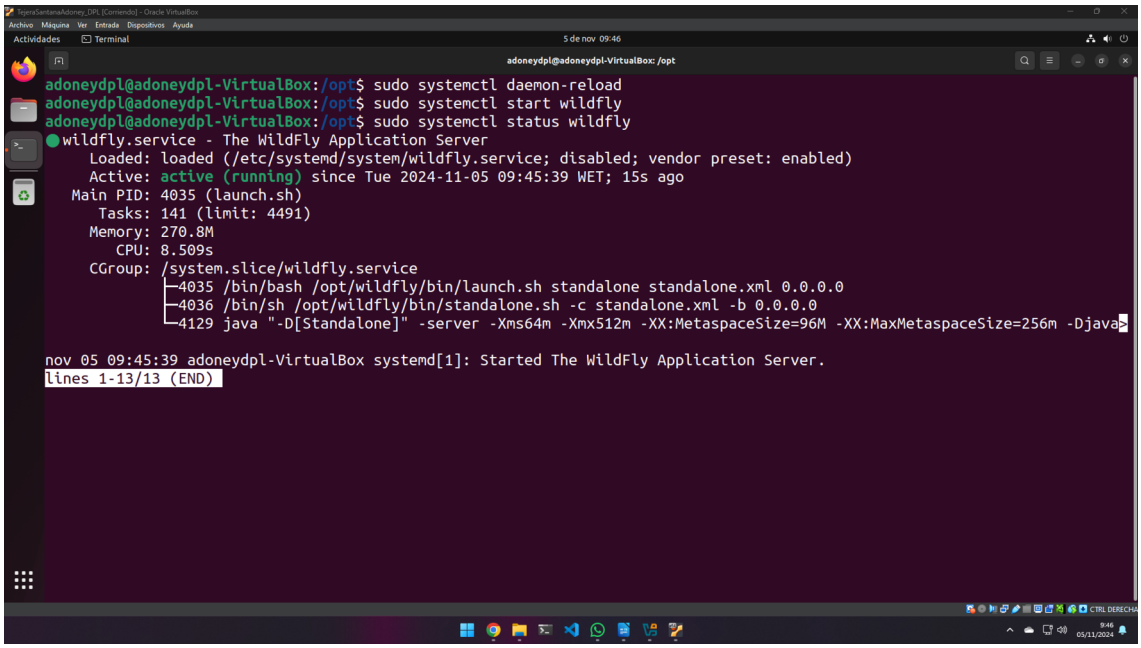
Se copia el fichero launch de WildFly al bin.



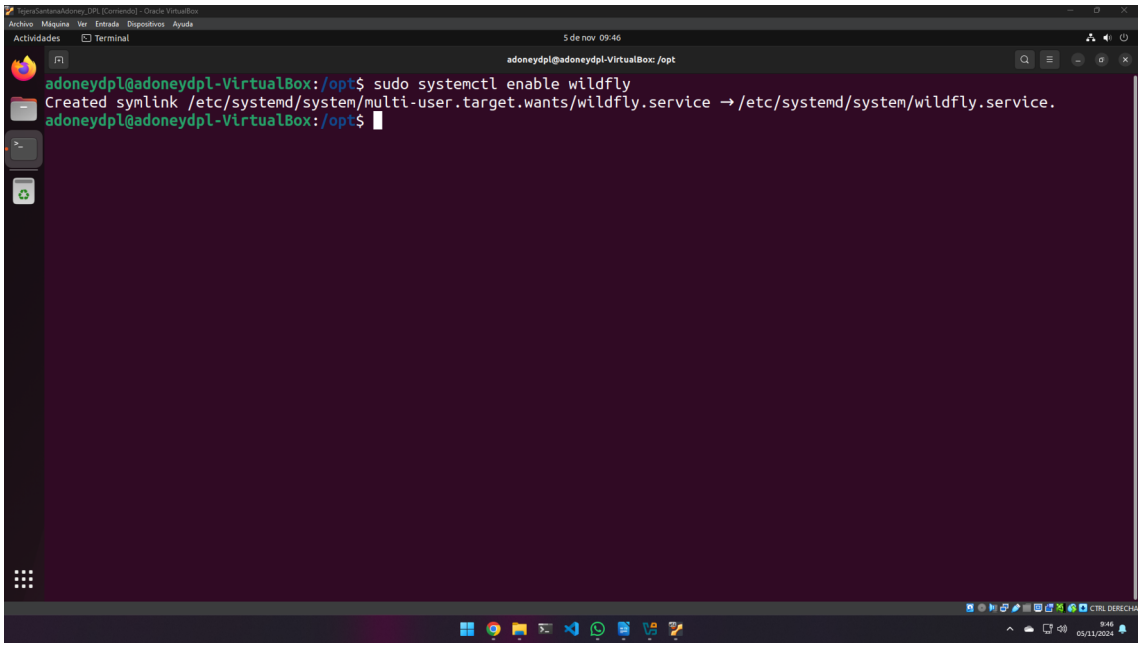
Se le da permisos de ejecución a la carpeta bin de WildFly.



Se copia el fichero *.service de wildfly al directorio /etc/systemd/system/.

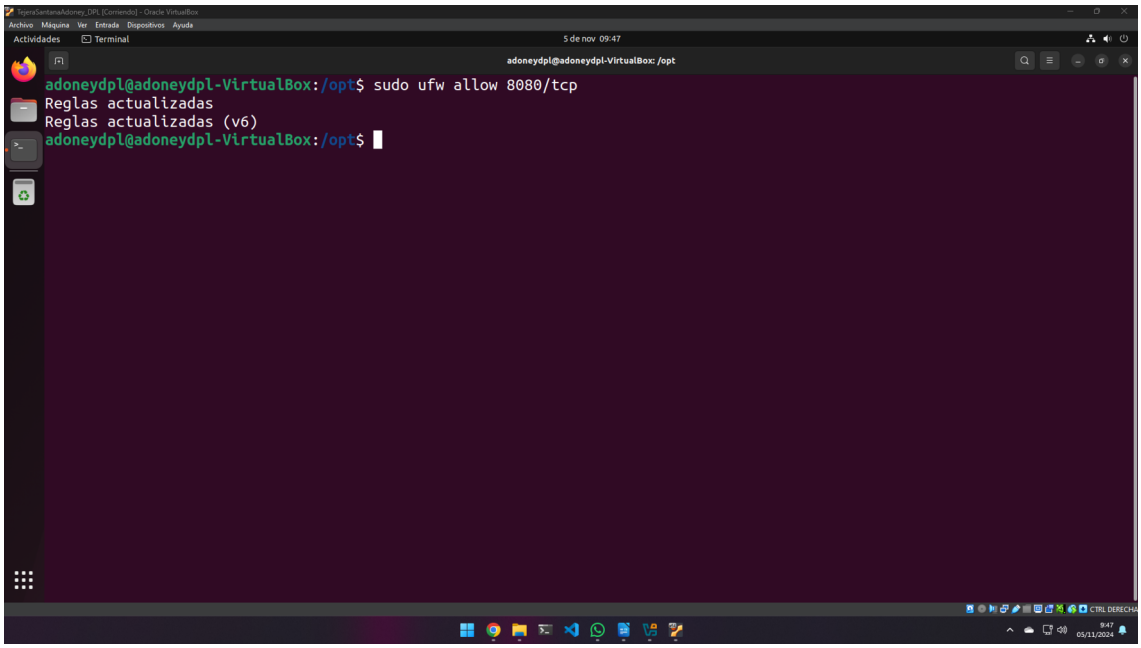


Se recarga el systemd, se inicia wildfly y se comprueba su estado.



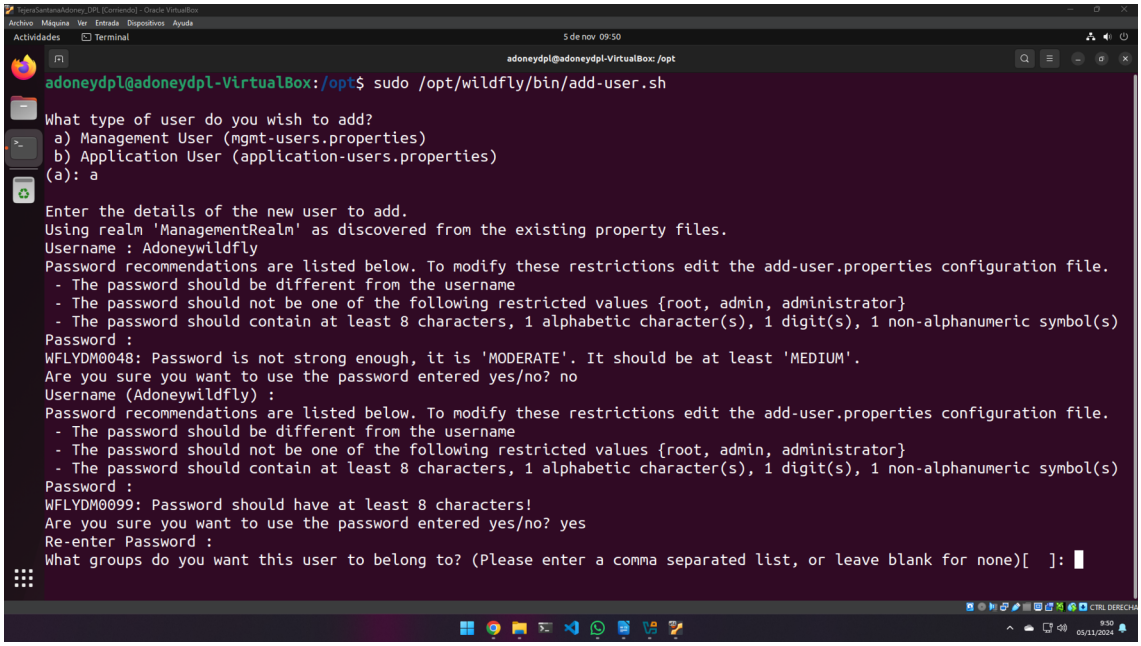
Por último se habilita el servicio wildfly para que permanezca iniciado al encender el sistema.

1.3 Ajustar Firewall

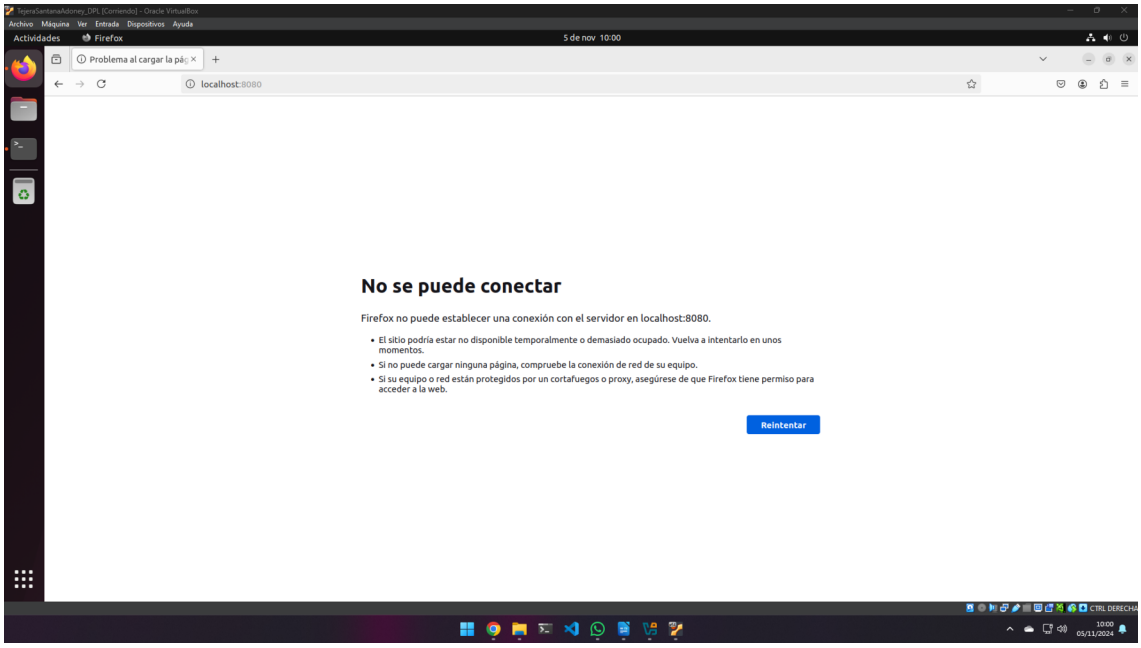


Se debe dar permiso de acceso al puerto 8080.

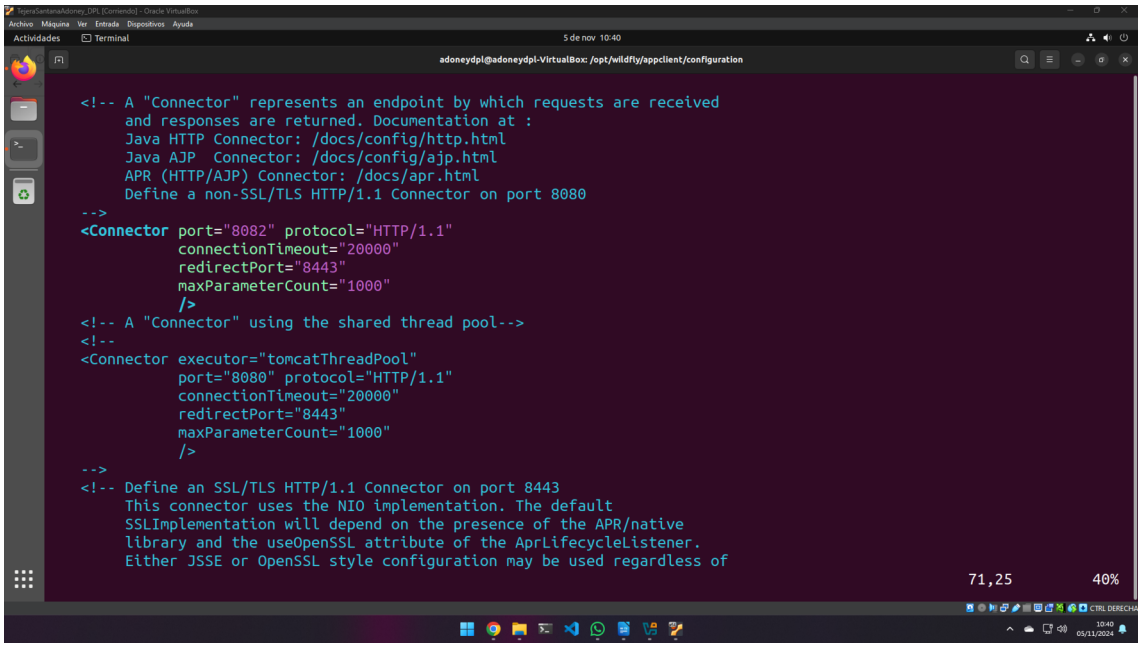
1.4 Configurar la Autenticación de WildFly



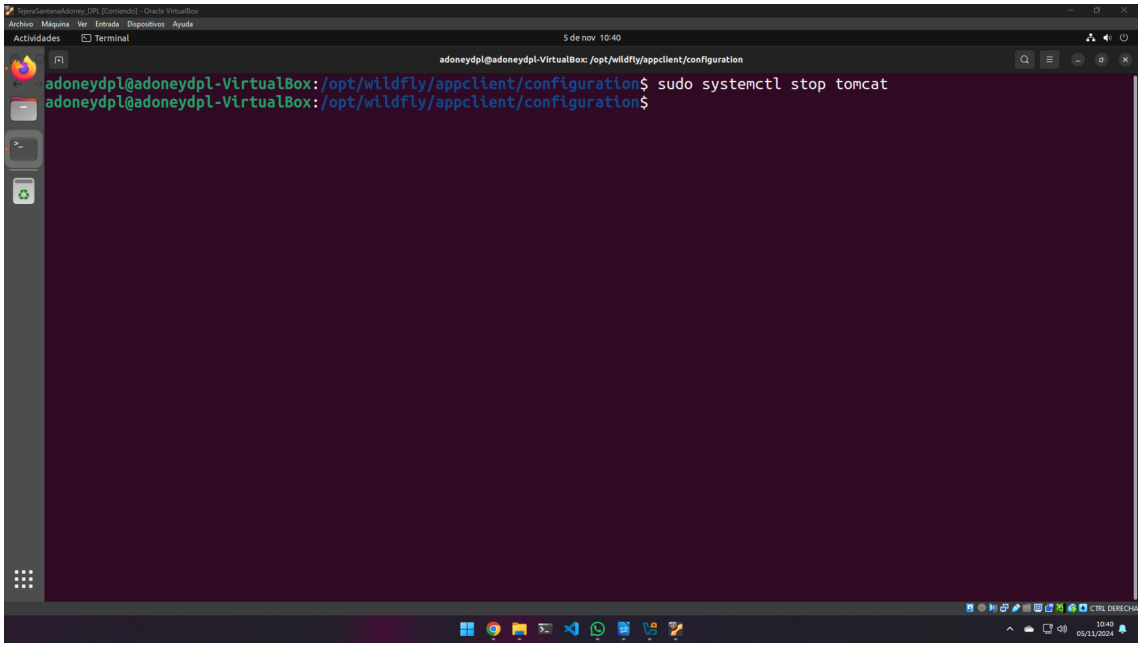
Se empieza creando un usuario dentro de WildFly (Adoneywildfly).



Se prueba la instalación entrando a la página principal de WildFly, no funciona.



Se cambia el puerto del Tomcat.



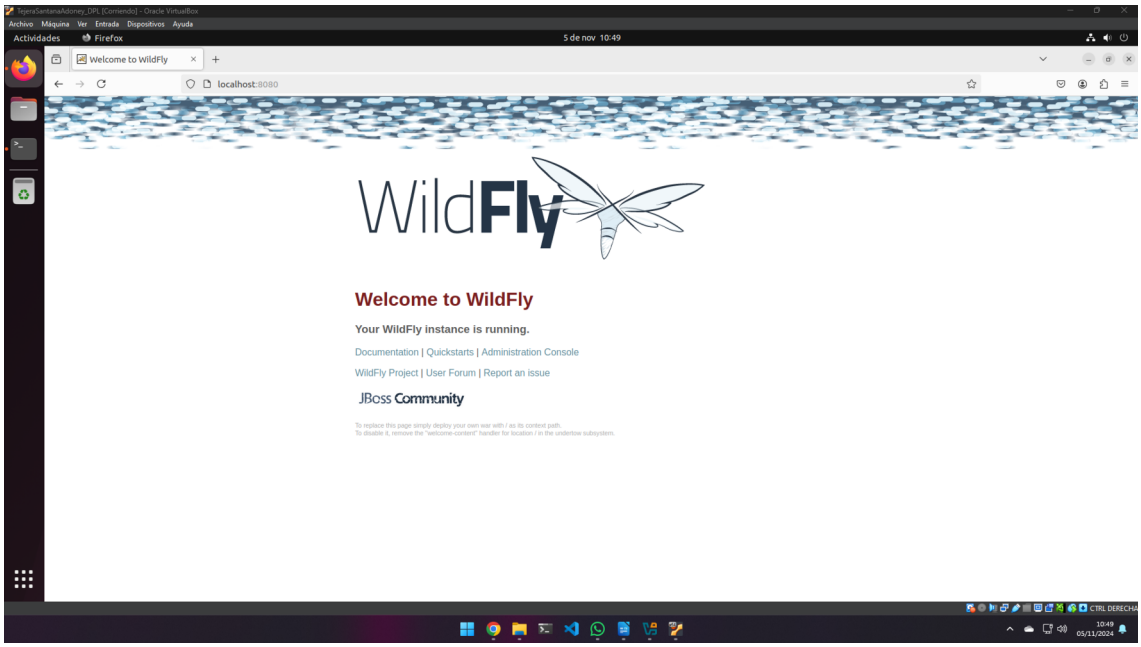
Se pausa Tomcat.

```
adoneydpl@adoneydpl-VirtualBox:/opt/wildfly/appclient/configuration$ cd /opt/wildfly/bin
adoneydpl@adoneydpl-VirtualBox:/opt/wildfly/bin$ sudo ./standalone.sh
=========================================================================

  JBoss Bootstrap Environment

  JBOSS_HOME: /opt/wildfly-25.0.1.Final

  JAVA: java

  JAVA_OPTS:  -server -Xms64m -Xmx512m -XX:MetaspaceSize=96M -XX:MaxMetaspaceSize=256m -Djava.net.preferIPv4Stack=true -Dj
boss.modules.system.pkgs=org.jboss.byteman -Djava.awt.headless=true  --add-exports=java.desktop/sun.awt=ALL-UNNAMED --add-
exports=java.naming/com.sun.jndi.ldap=ALL-UNNAMED --add-opens=java.base/java.lang=ALL-UNNAMED --add-opens=java.base/java.l
ang.invoke=ALL-UNNAMED --add-opens=java.base/java.lang.reflect=ALL-UNNAMED --add-opens=java.base/java.io=ALL-UNNAMED --add
-opens=java.base/java.security=ALL-UNNAMED --add-opens=java.base/java.util=ALL-UNNAMED --add-opens=java.base/java.util.con
current=ALL-UNNAMED --add-opens=java.management/javax.management=ALL-UNNAMED --add-opens=java.naming/javax.naming=ALL-UNNA
MED

=========================================================================

10:41:14,984 INFO  [org.jboss.modules] (main) JBoss Modules version 1.12.0.Final
10:41:16,796 INFO  [org.jboss.msc] (main) JBoss MSC version 1.4.13.Final
10:41:17,247 INFO  [org.jboss.threads] (main) JBoss Threads version 2.4.0.Final
10:41:17,414 INFO  [org.jboss.as] (MSC service thread 1-1) WFLYSRV0049: WildFly Full 25.0.1.Final (WildFly Core 17.0.3.Fin
al) starting
10:41:18,533 INFO  [org.wildfly.security] (ServerService Thread Pool -- 27) ELY00001: WildFly Elytron version 1.17.1.Final
10:41:19,644 INFO  [org.jboss.as.server] (Controller Boot Thread) WFLYSRV0039: Creating http management service using sock
et-binding (management-http)
10:41:19,723 INFO  [org.xnio] (MSC service thread 1-4) XNIO version 3.8.4.Final
```

Se ejecuta wildfly para que funcione independientemente.

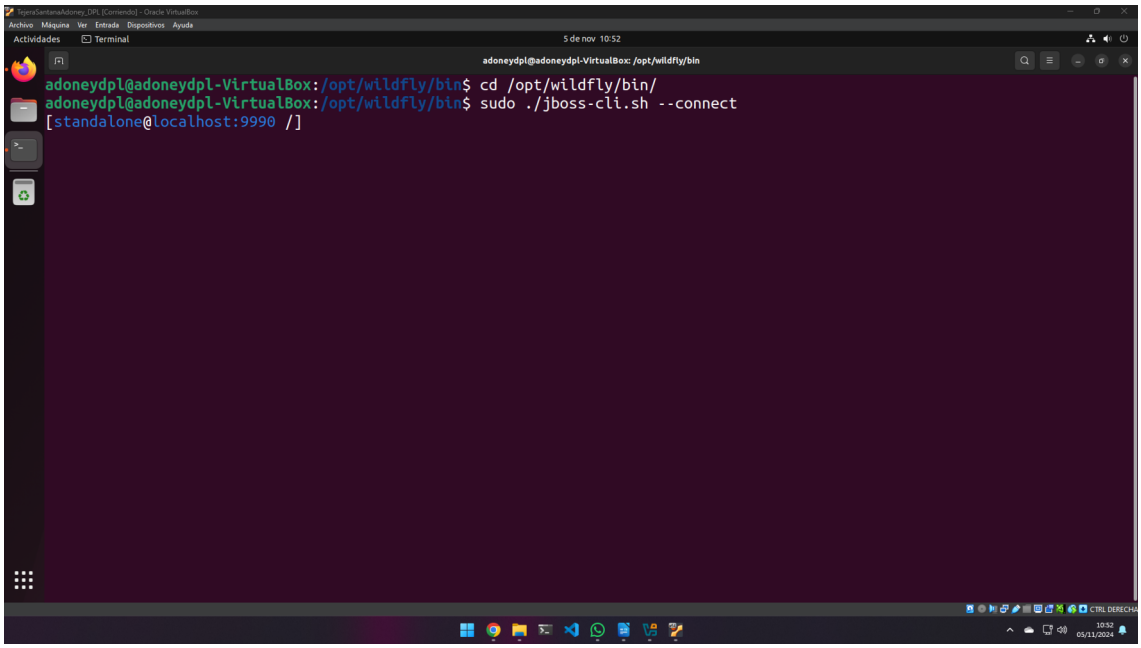
```
10:42:05,814 ERROR [org.jboss.as.controller] (Controller Boot Thread) WFLYCTL0459: Triggering roll back due to missing man
agement services.
10:42:05,816 ERROR [org.jboss.as.controller.management-operation] (Controller Boot Thread) WFLYCTL0013: Operation ("add")
failed - address: ([
    ("core-service" => "management"),
    ("management-interface" => "http-interface")
]) - failure description: {
    "WFLYCTL0080: Failed services" => {"org.wildfly.management.http.extensible" => "java.net.BindException: La dirección y
a se está usando /127.0.0.1:9990"},
    "WFLYCTL0412: Required services that are not installed:" => ["jboss.http-upgrade-registry.http-management"],
    "WFLYCTL0180: Services with missing/unavailable dependencies" => ["jboss.remoting.remoting-http-upgrade-service.http-m
anagement is missing [jboss.http-upgrade-registry.http-management]"]
}
10:42:05,880 INFO  [org.jboss.as.mail.extension] (MSC service thread 1-2) WFLYMAIL0002: Unbound mail session [java:jboss/m
ail/Default]
10:42:05,883 INFO  [org.jboss.as.connector.subsystems.datasources] (MSC service thread 1-7) WFLYJCA0010: Unbound data sour
ce [java:jboss/datasources/ExampleDS]
10:42:05,883 INFO  [org.wildfly.extension.undertow] (MSC service thread 1-1) WFLYUT0008: Undertow HTTP listener default su
spending
10:42:05,889 INFO  [org.wildfly.extension.undertow] (MSC service thread 1-1) WFLYUT0007: Undertow HTTP listener default st
opped, was bound to 127.0.0.1:8080
10:42:05,889 INFO  [org.wildfly.extension.undertow] (MSC service thread 1-4) WFLYUT0019: Host default-host stopping
10:42:05,893 INFO  [org.jboss.as.connector.deployers.jdbc] (MSC service thread 1-1) WFLYJCA0019: Stopped Driver service wi
th driver-name = h2
10:42:05,897 INFO  [org.wildfly.extension.undertow] (MSC service thread 1-8) WFLYUT0004: Undertow 2.2.12.Final stopping
10:42:06,013 FATAL [org.jboss.as.server] (Controller Boot Thread) WFLYSRV0056: Server boot has failed in an unrecoverable
manner; exiting. See previous messages for details.
10:42:06,061 INFO  [org.jboss.as] (MSC service thread 1-2) WFLYSRV0050: WildFly Full 25.0.1.Final (WildFly Core 17.0.3.Fin
al) stopped in 42ms
```

Mientras tanto aparece el siguiente error durante la ejecución del comando.



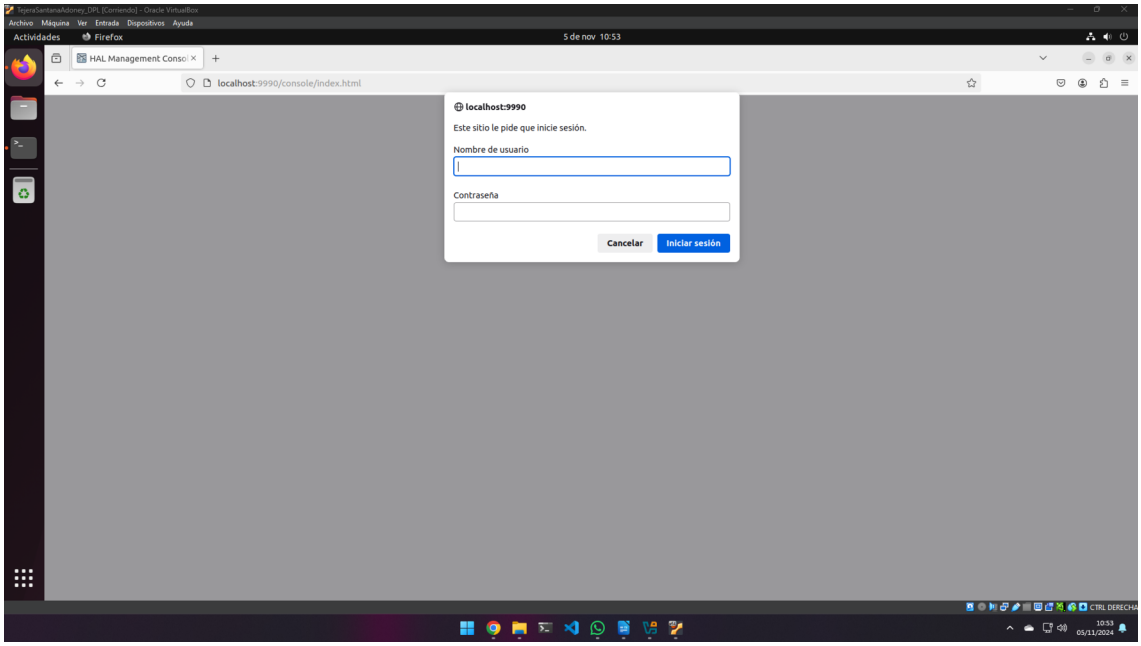
Después de reiniciar el sistema, empieza a funcionar el servicio.

1.5 Línea de Comandos (Command-Line Interface, CLI)

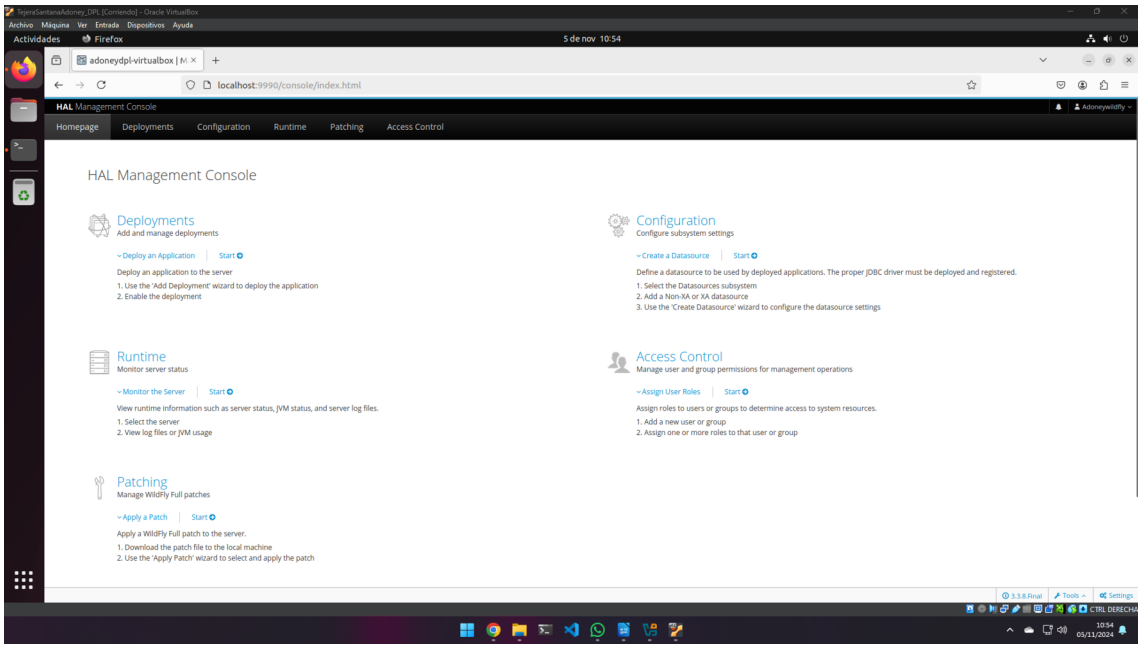


Se inicia la consola de Jboss.

1.6 Interfaz Web



Se accede a la sección “console” de wildfly, y nos pide el usuario, el cual es el creado con wildfly (Adoneywildfly).



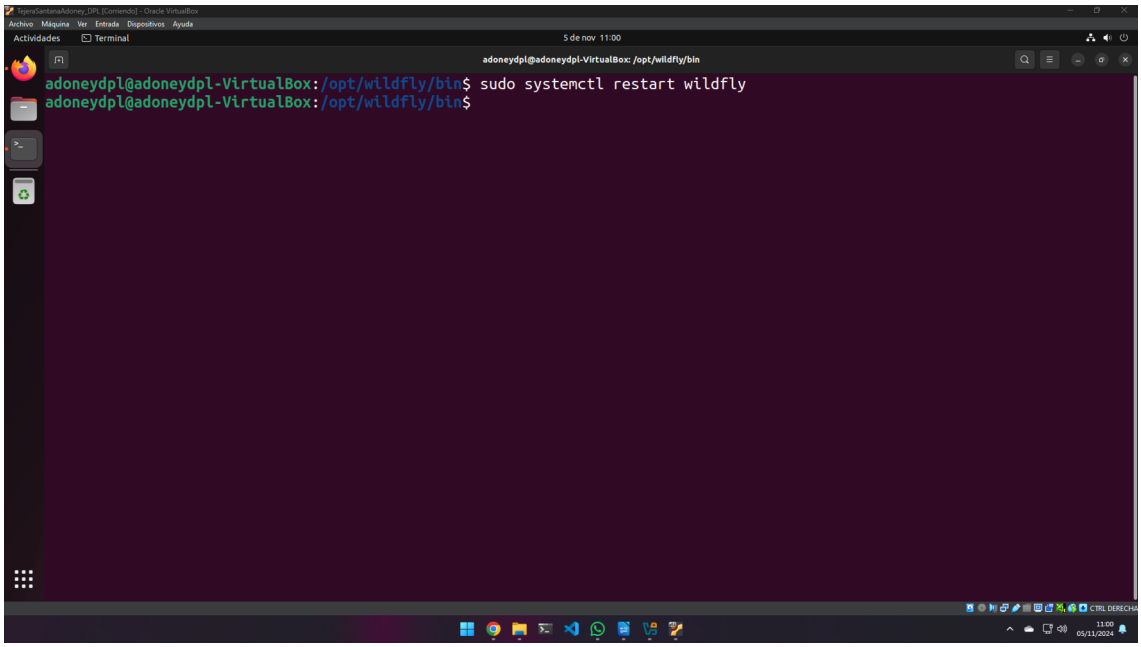
Una vez introducidos los datos se puede ver la consola de control.

```
# The configuration you want to run
WILDFLY_CONFIG=standalone.xml

# The mode you want to run
WILDFLY_MODE=standalone

# The address to bind to
WILDFLY_BIND=0.0.0.0

# Permitir el acceso de forma remota
WILDFLY_CONSOLE_BIND=0.0.0.0
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
"wildfly.conf" 11L, 232B escritos                                    10,36          Todo
```

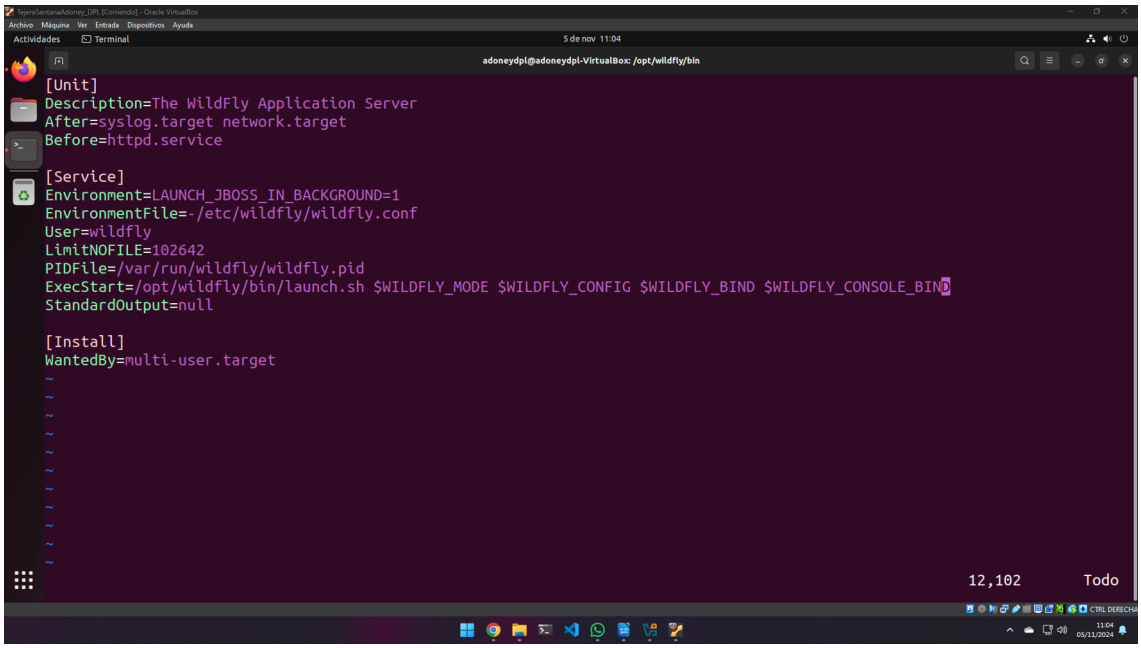
Se configura el fichero wildfly.conf para permitir el acceso remoto a la consola.

```
1 #!/bin/bash
2
3 if [ "x$WILDFLY_HOME" = "x" ]; then
4     WILDFLY_HOME="/opt/wildfly"
5 fi
6
7 if [[ "$1" == "domain" ]]; then
8     $WILDFLY_HOME/bin/domain.sh -c $2 -b $3 -bmanagement $4
9 else
10    $WILDFLY_HOME/bin/standalone.sh -c $2 -b $3 -bmanagement $4
11 fi
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
"launch.sh" 11L, 249B escritos                                       10,48          Todo
```

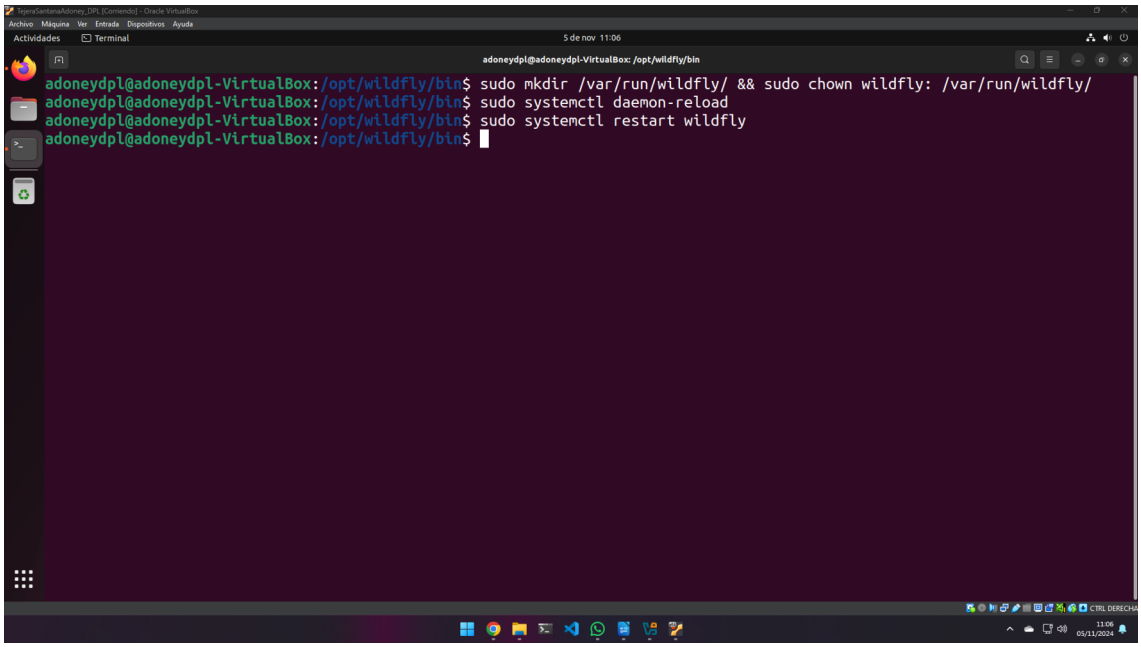
En el fichero “launch.sh” de la carpeta de inicio de wildfly, se agrega “-bmanagement $4” en las lineas 8 y 10.



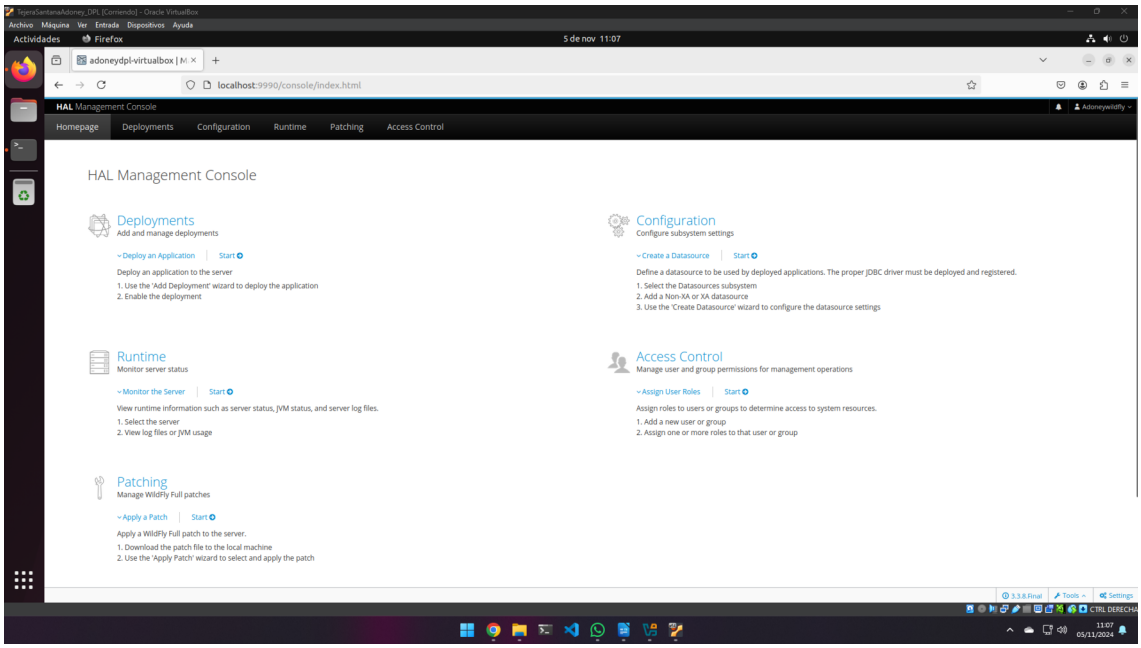
Se reinicia el servicio.



En el fichero wildfly.service se añade “$WILDFLY_CONSOLE_BIND” en el parámetro “ExectStart”.

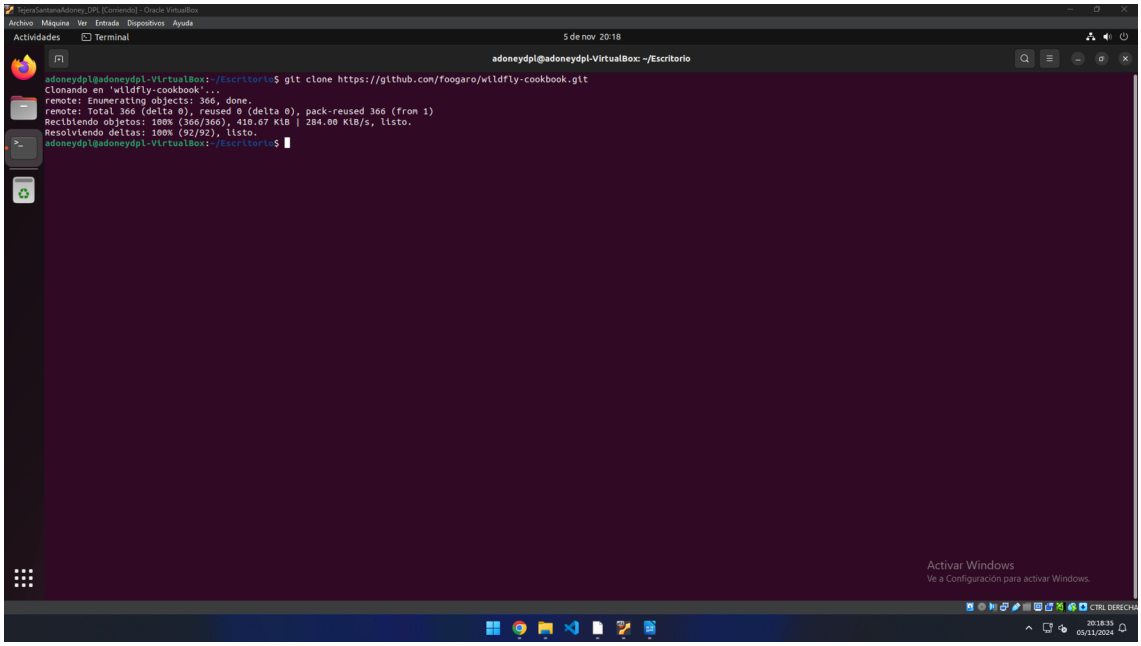


Se crea el siguiente directorio, a la vez se el da los permisos necesarios, se reinicia systemd y finalmente se reinicia wildfly.

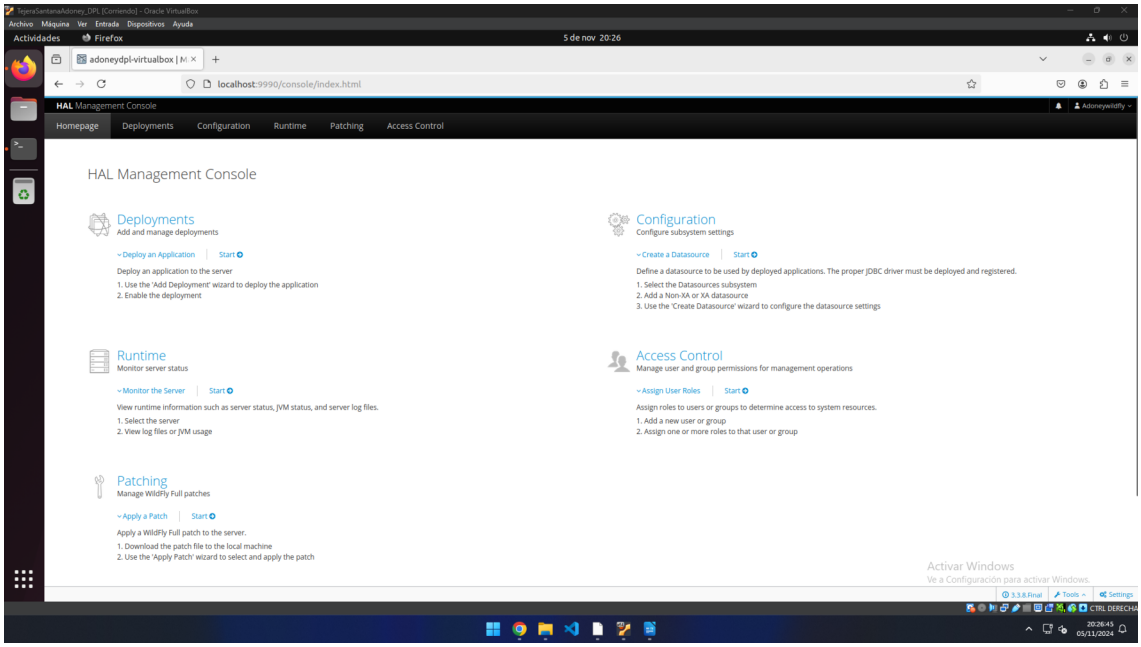


Se comprueba que sigue funcionando correctamente la página de wildfly.

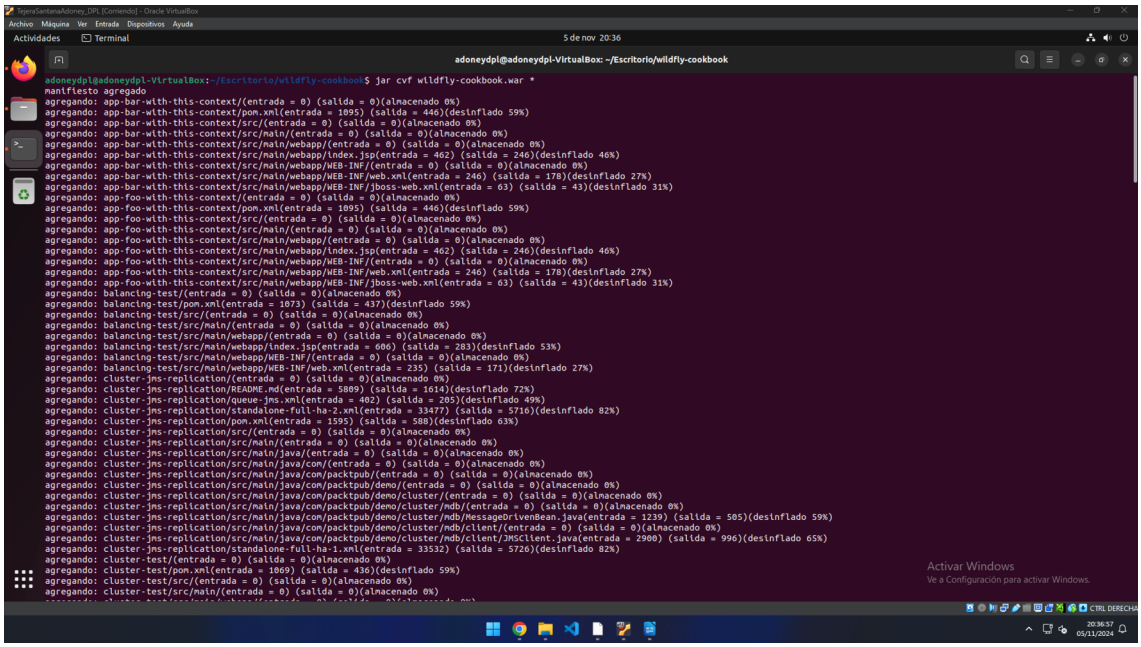
2 Cargar una aplicación en Wildfly. Buscar la aplicación en Internet y desplegarla en el servidor JBoss/Wildfly. En el siguiente enlace hay un repositorio con aplicaciones para JBoss/Wildfly:



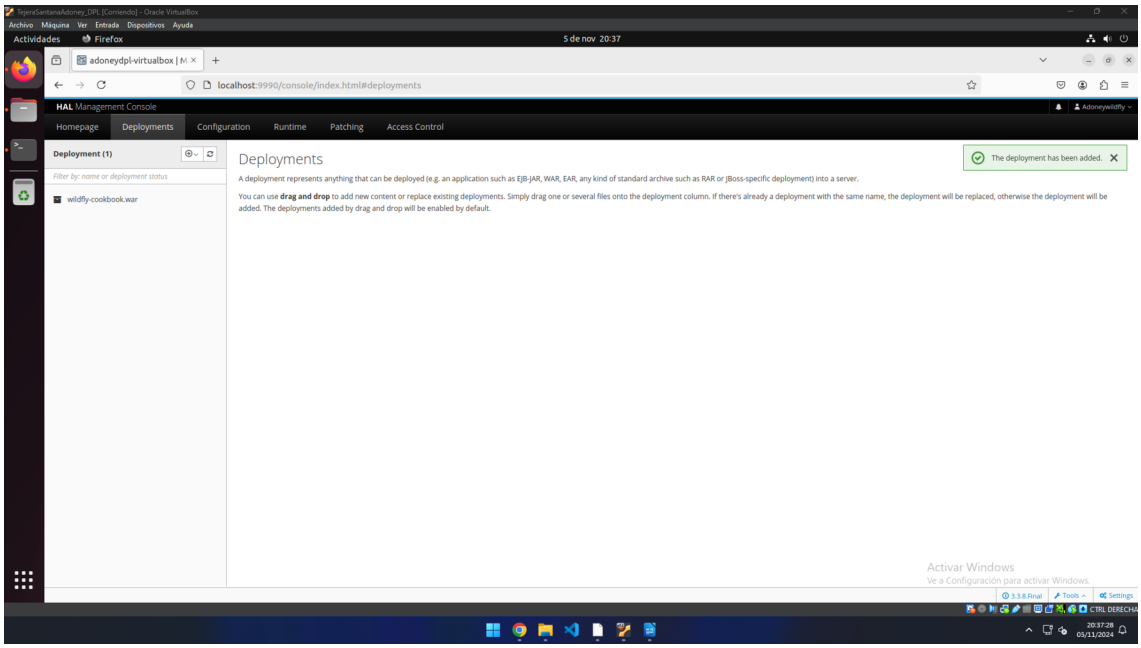
Primero se clona el repositorio.



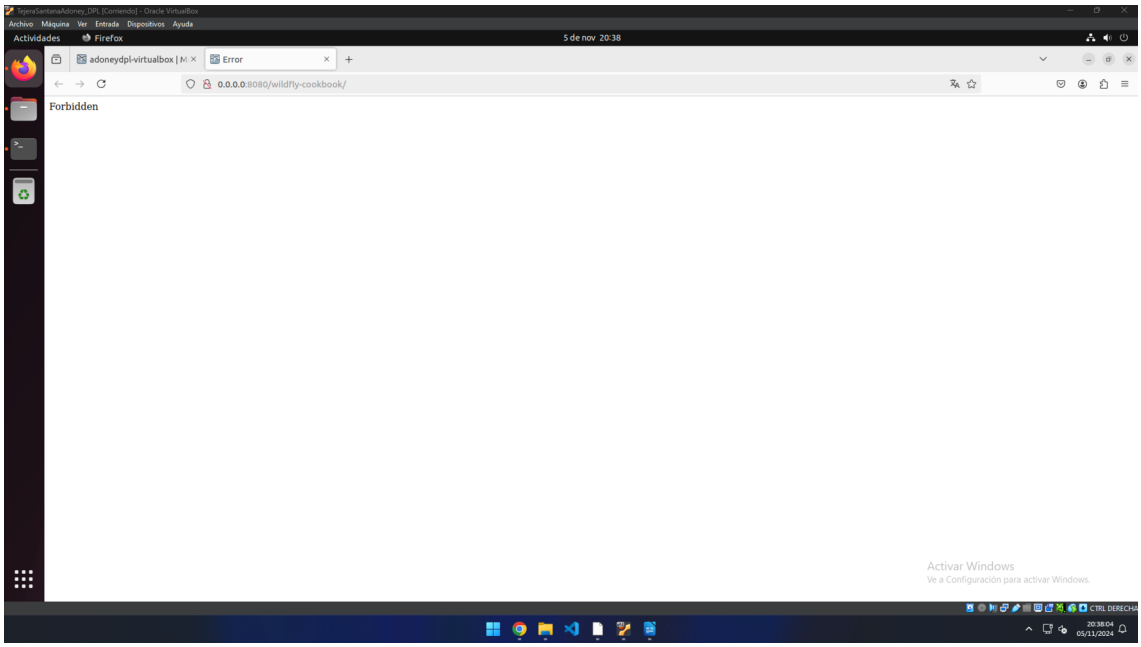
Nos dirigimos a la consola de WildFly, en Deployments.



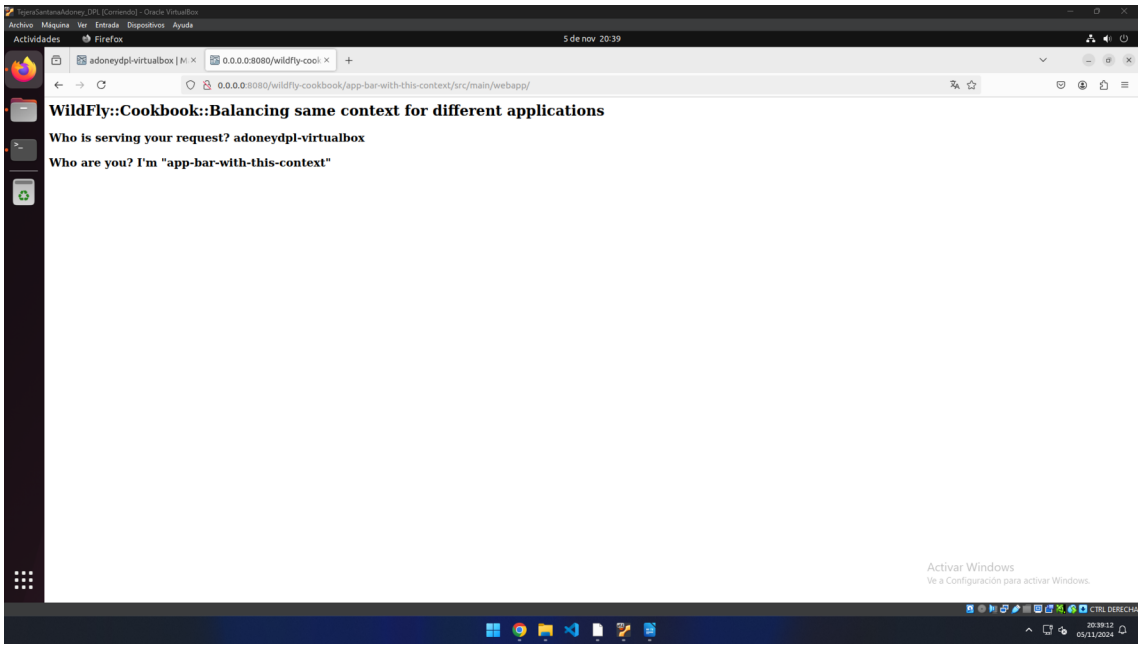
Se crea el fichero WAR del repositorio instalado.



Dicho fichero WAR se mueve a la página de despliegue de WildFly.



Al ir a la página nos da el siguiente contenido.



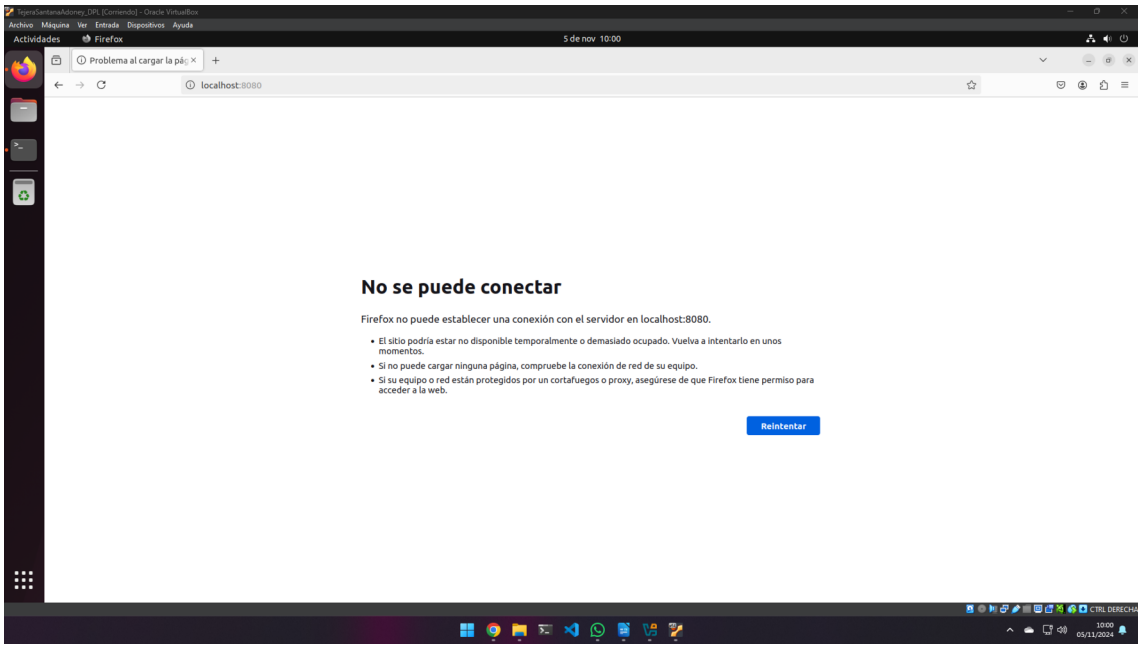
La página contiene todas y cada unas de las páginas que contiene el repositorio, se escribe en la URL la ruta de uno de los proyectos, en donde tiene el index.

Herramientas empleadas

En esta práctica se ha empleado el servicio WildFly para el despliegue de aplicaciones.

Problemática encontrada y solución

- Después de toda la instalación, la página principal de WildFly no funciona.



Solución: Hacer los pasos del documento "puerto tomcat-solución…" y reiniciar el sistema.

Conclusiones

En esta práctica hemos aprendido a instala, configurar y utilizar WildFly para el despliegue de aplicaciones.