


Seminario 1. Sistemas de Información Empresarial: iDempiere



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Grupo 5



Información sobre el ERP seleccionado: iDempiere

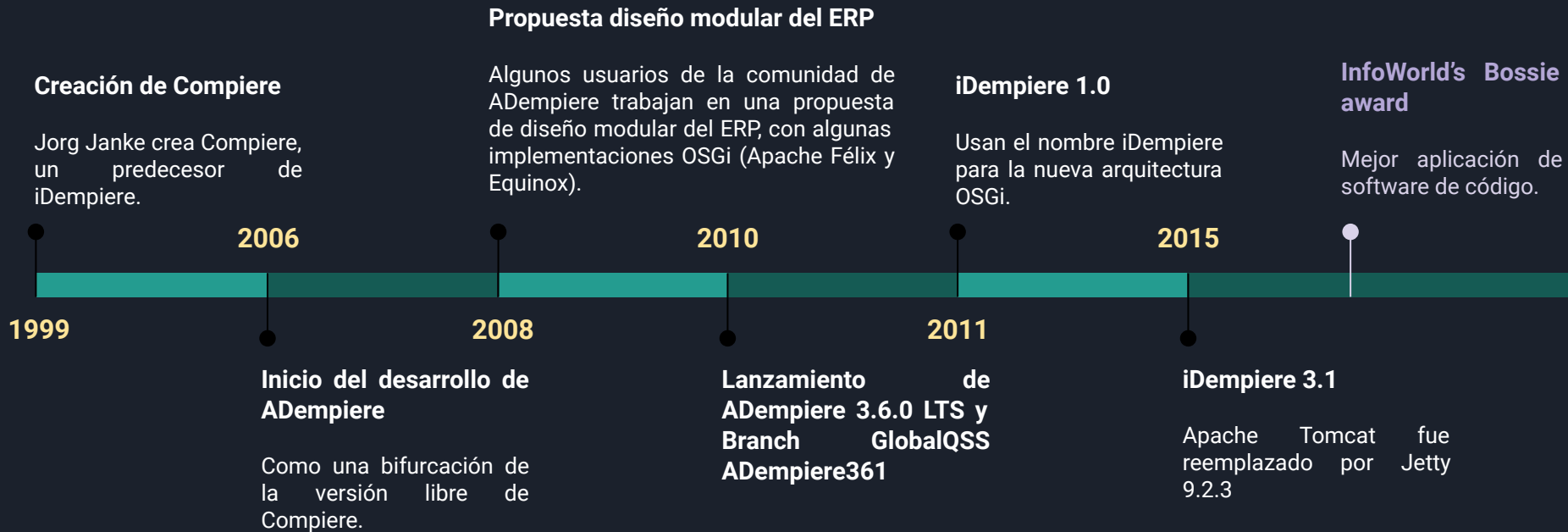
- iDempiere Business Suite (OSGi + Adempiere) es un software **ERP** de código abierto.
- Escalable, modular e independiente.
- Incluye funcionalidades de **CRM** (Administración de la Relación de los Clientes) y **SCM** (Administración de la Cadena de Suministro).
- Gratuito.
- Soporta múltiples compañías, organizaciones, idiomas, monedas, esquemas contables y usuarios.

Introducción y nota histórica

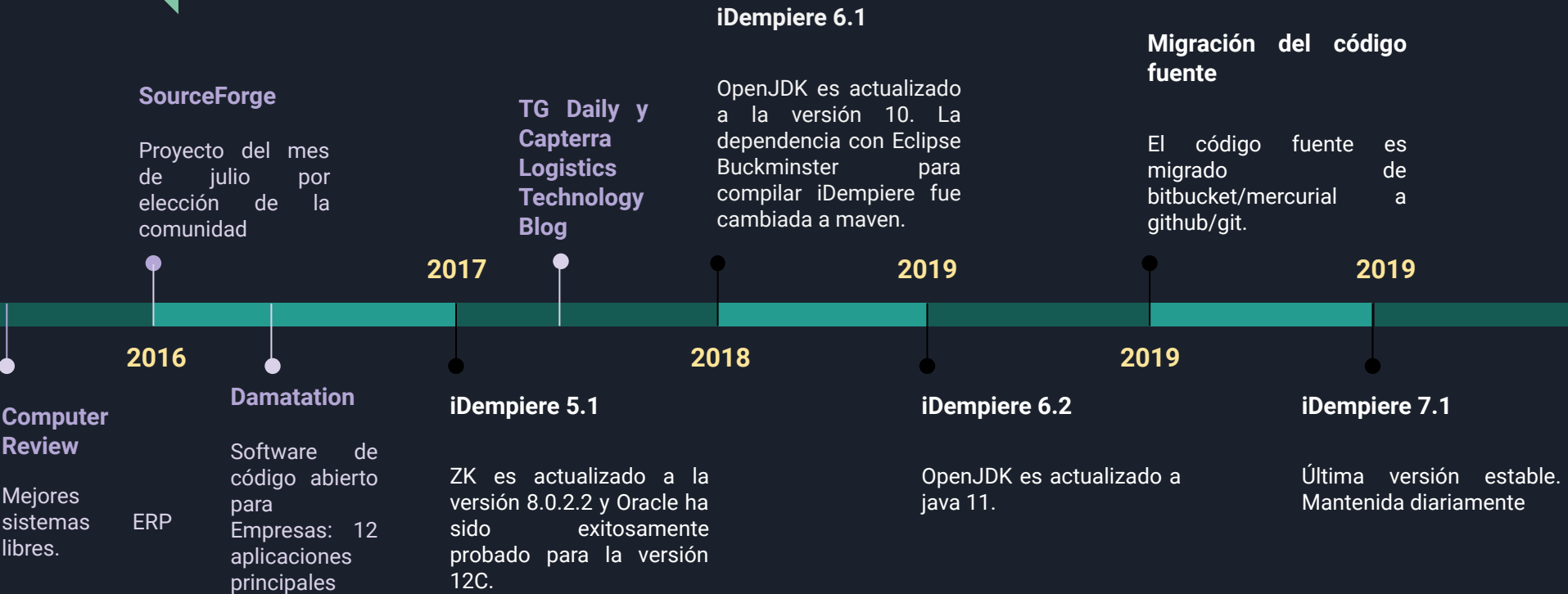
- Lanzamiento: marzo de 2011
- Desarrollador comunitario.
- Lenguaje de programación: Java.
- Sistema Operativo: Linux, Windows, Mac y Solaris.
- Plataforma:
 - OSGi: para montar módulos en caliente.
 - Jetty accesible a través de ZT Framework.
- Licencia: GPLv2.
- Soporta: Oracle y PostgreSQL.
- Navegadores: Chrome, Firefox, Opera e Internet Explorer.



Introducción y nota histórica



Introducción y nota histórica

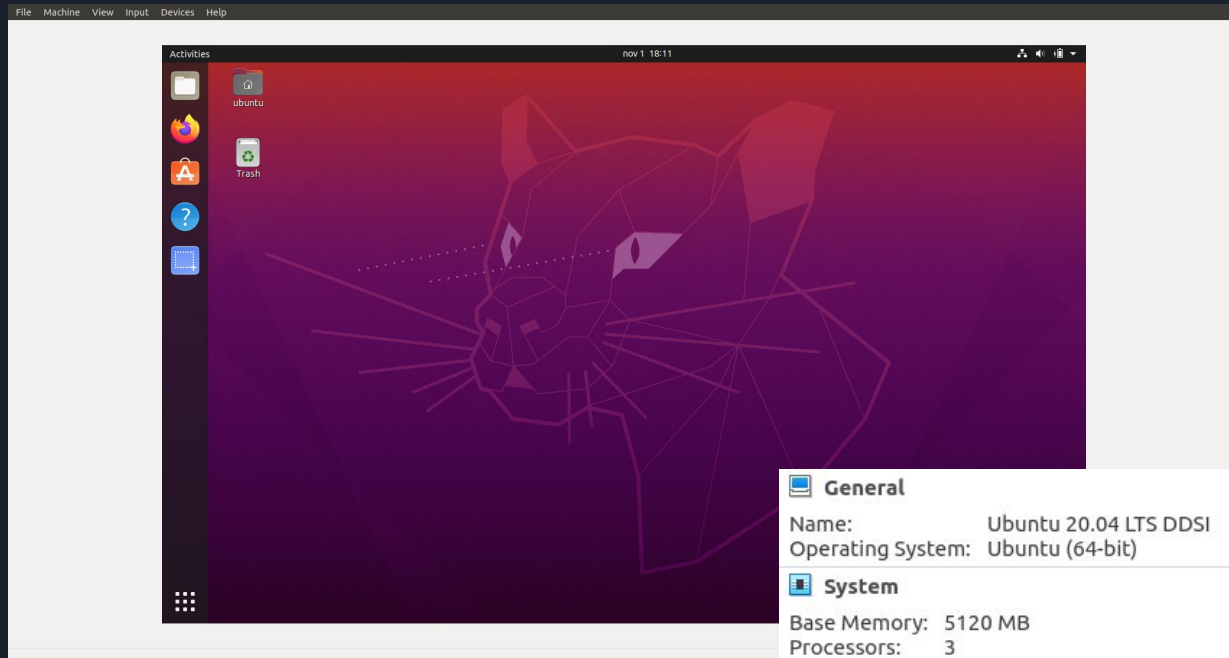




Proceso de instalación

- Entorno
- Prerrequisitos:
 - PostgreSQL
 - OpenJDK
- iDempiere
 - Descarga
 - Instalación
 - Configuración
 - Arranque

Entorno: Ubuntu 20.04 LTS sobre VirtualBox



Prerrequisito: PostgreSQL (I)

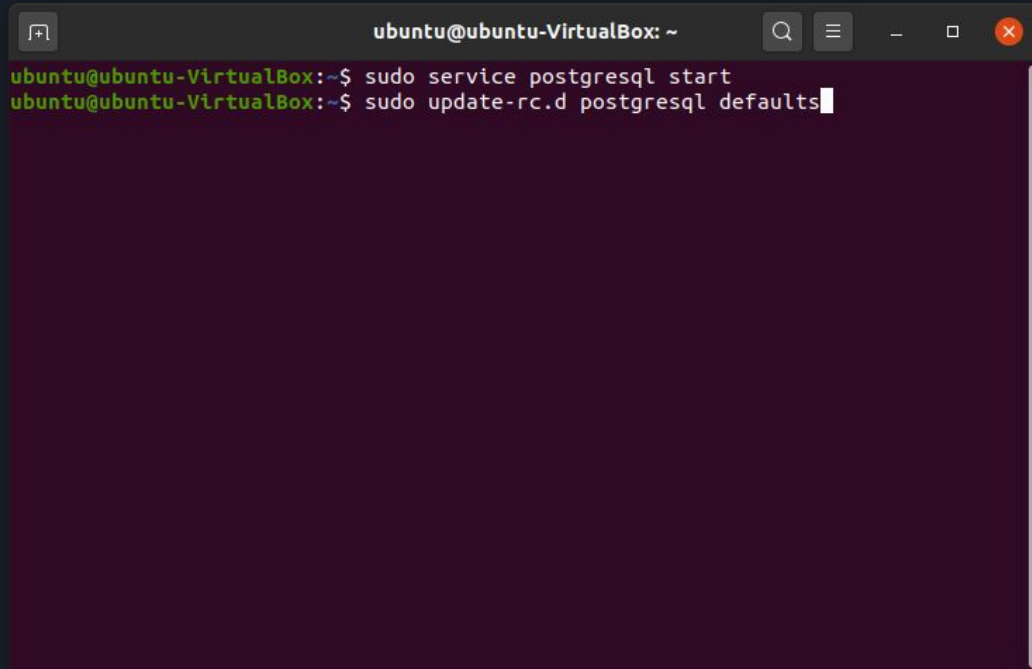
```
ubuntu@ubuntu-VirtualBox: ~  
ubuntu@ubuntu-VirtualBox:~$ echo "deb http://apt.postgresql.org/pub/repos/apt/ b  
ionic-pgdg main" | sudo tee /etc/apt/sources.list.d/pgdg.list  
[sudo] password for ubuntu:  
deb http://apt.postgresql.org/pub/repos/apt/ bionic-pgdg main  
ubuntu@ubuntu-VirtualBox:~$ wget --quiet -O - https://www.postgresql.org/media/k  
eys/ACCC4CF8.asc | sudo apt-key add -  
OK  
ubuntu@ubuntu-VirtualBox:~$ sudo apt-get update  
Hit:1 http://security.ubuntu.com/ubuntu focal-security InRelease  
Hit:2 http://es.archive.ubuntu.com/ubuntu focal InRelease  
Hit:3 http://es.archive.ubuntu.com/ubuntu focal-updates InRelease  
Hit:4 http://es.archive.ubuntu.com/ubuntu focal-backports InRelease  
Get:5 http://apt.postgresql.org/pub/repos/apt bionic-pgdg InRelease [103 kB]  
Get:6 http://apt.postgresql.org/pub/repos/apt bionic-pgdg/main i386 Packages [22  
6 kB]  
Get:7 http://apt.postgresql.org/pub/repos/apt bionic-pgdg/main amd64 Packages [2  
27 kB]  
Fetched 556 kB in 2s (348 kB/s)  
Reading package lists... Done  
ubuntu@ubuntu-VirtualBox:~$
```


Prerrequisitos: PostgreSQL (II)

```
ubuntu@ubuntu-VirtualBox: ~  
ubuntu@ubuntu-VirtualBox:~$ sudo apt-get install postgresql-9.6 postgresql-contrib-9.6  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following package was automatically installed and is no longer required:  
  libfprint-2-tod1  
Use 'sudo apt autoremove' to remove it.  
The following additional packages will be installed:  
  libpq5 pgdg-keyring postgresql-client-9.6 postgresql-client-common  
  postgresql-common sysstat  
Suggested packages:  
  postgresql-doc-9.6 libjson-perl libdbd-pg-perl isag  
Recommended packages:  
  libreadline7  
The following NEW packages will be installed:  
  libpq5 pgdg-keyring postgresql-9.6 postgresql-client-9.6  
  postgresql-client-common postgresql-common postgresql-contrib-9.6 sysstat  
0 upgraded, 8 newly installed, 0 to remove and 25 not upgraded.  
Need to get 7.156 kB of archives.  
After this operation, 33,1 MB of additional disk space will be used.  
Do you want to continue? [Y/n]
```

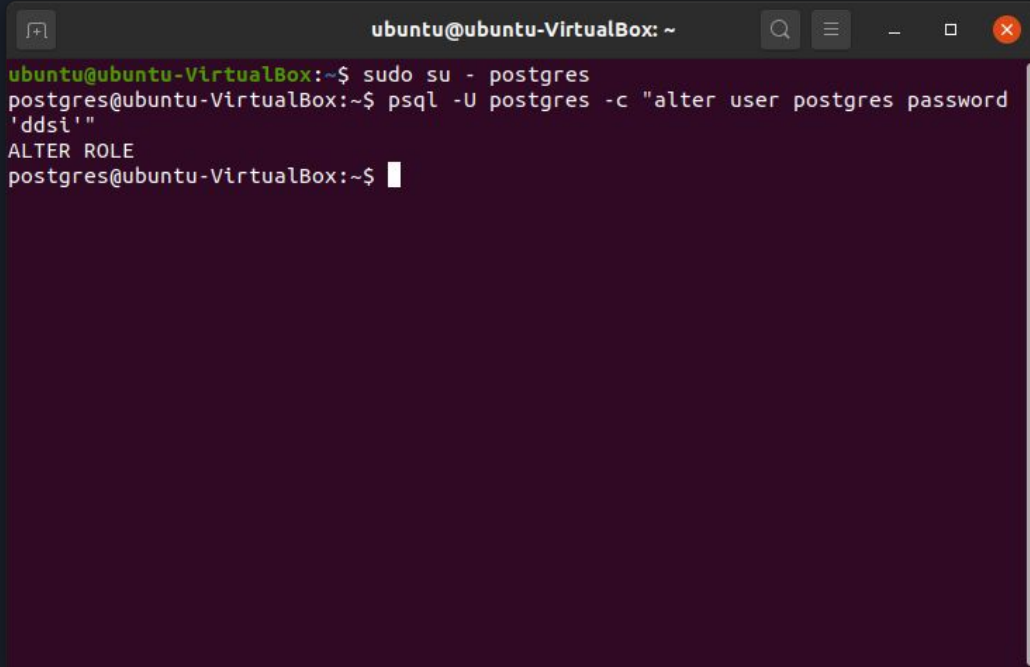


Prerrequisitos: PostgreSQL (III)




```
ubuntu@ubuntu-VirtualBox: ~  
ubuntu@ubuntu-VirtualBox:~$ sudo service postgresql start  
ubuntu@ubuntu-VirtualBox:~$ sudo update-rc.d postgresql defaults
```

Prerrequisitos: PostgreSQL (IV)

A terminal window titled 'ubuntu@ubuntu-VirtualBox: ~' with standard window controls. The terminal shows a sequence of commands to switch to the postgres user and then use psql to alter the postgres user's password to 'ddsi'. The output of the psql command is 'ALTER ROLE'.

```
ubuntu@ubuntu-VirtualBox:~$ sudo su - postgres
postgres@ubuntu-VirtualBox:~$ psql -U postgres -c "alter user postgres password
'ddsi'"
ALTER ROLE
postgres@ubuntu-VirtualBox:~$
```

Prerrequisitos: PostgreSQL (V)




```
Open  *pg_hba.conf  Save  /etc/postgresql/9.6/main
62 # This file is read on server startup and when the postmaster receives
63 # a SIGHUP signal. If you edit the file on a running system, you have
64 # to SIGHUP the postmaster for the changes to take effect. You can
65 # use "pg_ctl reload" to do that.
66
67 # Put your actual configuration here
68 # -----
69 #
70 # If you want to allow non-local connections, you need to add more
71 # "host" records. In that case you will also need to make PostgreSQL
72 # listen on a non-local interface via the listen_addresses
73 # configuration parameter, or via the -i or -h command line switches.
74
75
76
77
78 # DO NOT DISABLE!
79 # If you change this first entry you will need to make sure that the
80 # database superuser can access the database using some other method.
81 # Noninteractive access to all databases is required during automatic
82 # maintenance (custom daily cronjobs, replication, and similar tasks).
83 #
84 # Database administrative login by Unix domain socket
85 local all postgres md5
86
87 # TYPE DATABASE USER ADDRESS METHOD
88
89 # "local" is for Unix domain socket connections only
90 local all all md5
91 # IPv4 local connections:
92 host all all 127.0.0.1/32 md5
93 # IPv6 local connections:
94 host all all ::1/128 md5
95 # Allow replication connections from localhost, by a user with the
96 # replication privilege.
97 #local replication postgres peer
98 #host replication postgres 127.0.0.1/32 md5
99 #host replication postgres ::1/128 md5
```

Plain Text Tab Width: 8 Ln 85, Col 68 INS

Prerrequisitos: OpenJDK

```
ubuntu@ubuntu-VirtualBox: ~  
ubuntu@ubuntu-VirtualBox:~$ sudo apt-get install openjdk-11-jdk-headless  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following package was automatically installed and is no longer required:  
  libfprint-2-tod1  
Use 'sudo apt autoremove' to remove it.  
The following additional packages will be installed:  
  ca-certificates-java java-common openjdk-11-jre-headless  
Suggested packages:  
  default-jre openjdk-11-demo openjdk-11-source fonts-dejavu-extra  
  fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei  
  | fonts-wqy-zenhei  
The following NEW packages will be installed:  
  ca-certificates-java java-common openjdk-11-jdk-headless  
  openjdk-11-jre-headless  
0 upgraded, 4 newly installed, 0 to remove and 25 not upgraded.  
Need to get 255 MB of archives.  
After this operation, 399 MB of additional disk space will be used.  
Do you want to continue? [Y/n]
```


iDempiere: Descarga



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Installation

To help you installing and setting iDempiere up for the first time, we have created this [installation tutorial](#) to guide you through the process and make it easy and fast.

Please note that the guide is written for Ubuntu/PostgreSQL, but it is easy to follow the same guide for other operating systems such as Windows, just by changing the related commands.

More resources

- [Source Code](#)
- [All releases](#)

iDempiere: Instalación

```
ubuntu@ubuntu-VirtualBox: ~/Downloads
ubuntu@ubuntu-VirtualBox:~/Downloads$ sudo dpkg -i idempiereServerDev7.1Daily.gtk.linux.x86_64.deb
(Reading database ... 160002 files and directories currently installed.)
Preparing to unpack idempiereServerDev7.1Daily.gtk.linux.x86_64.deb ...
Unpacking idempiere (7.1) ...
Setting up idempiere (7.1) ...
Executing Post-install steps...
You must run '/etc/init.d/idempiere configure' as the root user to configure the application.

Processing triggers for gnome-menus (3.36.0-1ubuntu1) ...
Processing triggers for desktop-file-utils (0.24-1ubuntu3) ...
Processing triggers for mime-support (3.64ubuntu1) ...
Processing triggers for systemd (245.4-4ubuntu3.2) ...
ubuntu@ubuntu-VirtualBox:~/Downloads$ |
```

iDempiere: Configuración (I)

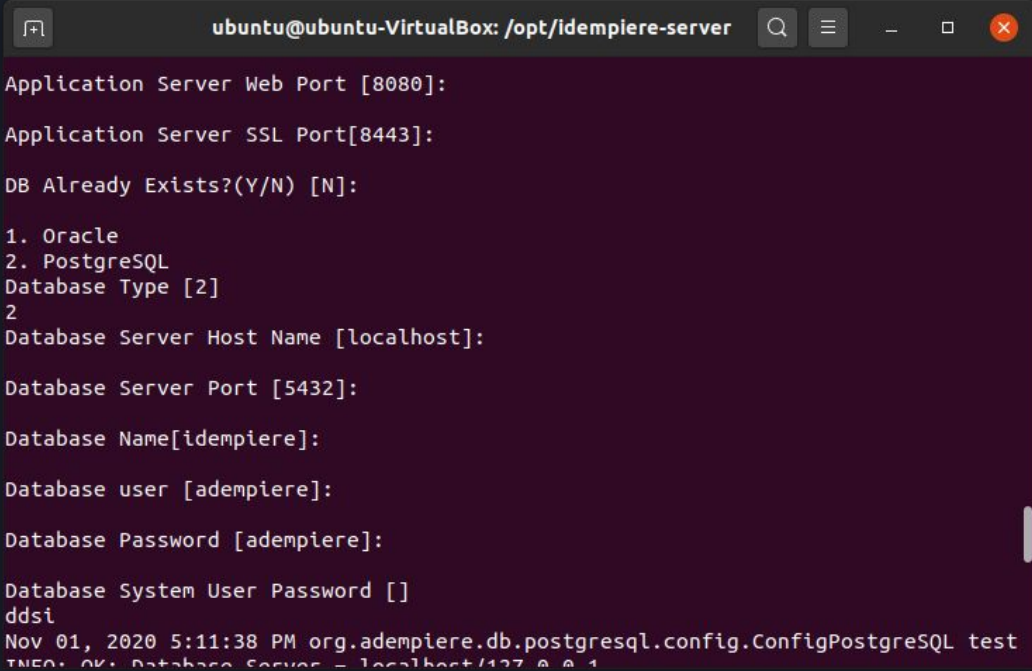
```
ubuntu@ubuntu-VirtualBox: /opt/idempiere-server
ubuntu@ubuntu-VirtualBox:/opt/idempiere-server$ sudo ./console-setup.sh
Setup idempiere Server
Nov 01, 2020 5:10:58 PM org.compiere.install.ConfigurationData load
INFO: Defaults
Java Home [/usr/lib/jvm/java-11-openjdk-amd64]:

Nov 01, 2020 5:11:00 PM org.compiere.install.ConfigVM test
INFO: OK: JavaHome=/usr/lib/jvm/java-11-openjdk-amd64
Nov 01, 2020 5:11:00 PM org.compiere.install.ConfigVM test
INFO: OK: Version=11.0.9
iDempiere Home [/opt/idempiere-server]:

Key Store Password [myPassword]:

Nov 01, 2020 5:11:03 PM org.compiere.install.KeyStoreMgt <init>
INFO: /opt/idempiere-server/jettyhome/etc/keystore
Nov 01, 2020 5:11:03 PM org.compiere.install.ConfigurationData testAdempiere
INFO: OK: AdempiereHome = /opt/idempiere-server
Nov 01, 2020 5:11:03 PM org.compiere.install.KeyStoreMgt <init>
INFO: /opt/idempiere-server/jettyhome/etc/keystore
Nov 01, 2020 5:11:03 PM org.compiere.install.ConfigurationData testAdempiere
INFO: OK: KeyStore = /opt/idempiere-server/jettyhome/etc/keystore
Application Server Host Name [0.0.0.0]:
```

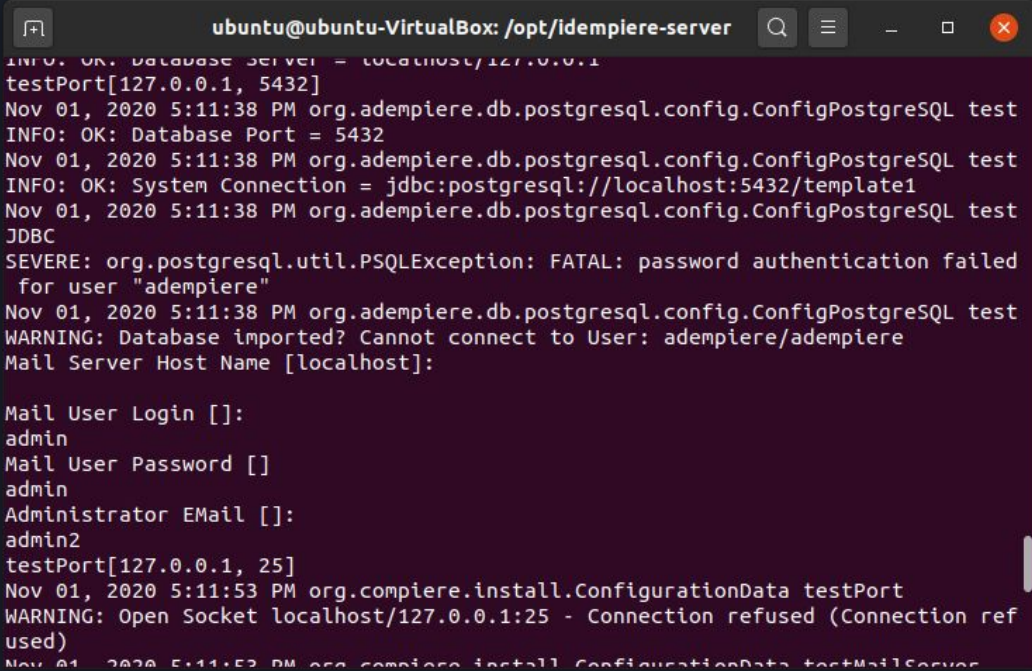

iDempiere: Configuración (II)



```
ubuntu@ubuntu-VirtualBox: /opt/idempiere-server
Application Server Web Port [8080]:
Application Server SSL Port[8443]:
DB Already Exists?(Y/N) [N]:
1. Oracle
2. PostgreSQL
Database Type [2]
2
Database Server Host Name [localhost]:
Database Server Port [5432]:
Database Name[idempiere]:
Database user [adempiere]:
Database Password [adempiere]:
Database System User Password []
ddsi
Nov 01, 2020 5:11:38 PM org.adempiere.db.postgresql.config.ConfigPostgreSQL test
INFO: OK: Database Server = localhost/127.0.0.1
```

The image shows a terminal window with a dark background and light-colored text. The window title is 'ubuntu@ubuntu-VirtualBox: /opt/idempiere-server'. The terminal output shows the configuration steps for iDempiere. A green arrow points to the 'Database Type' prompt, where '2' (PostgreSQL) is entered. Another green arrow points to the 'Database System User Password' prompt, where 'ddsi' is entered. The final output shows a successful connection test to the database server.

iDempiere: Configuración (III)



```
ubuntu@ubuntu-VirtualBox: /opt/idempiere-server
INFO: OK: Database Server = localhost/127.0.0.1
testPort[127.0.0.1, 5432]
Nov 01, 2020 5:11:38 PM org.adempiere.db.postgresql.config.ConfigPostgreSQL test
INFO: OK: Database Port = 5432
Nov 01, 2020 5:11:38 PM org.adempiere.db.postgresql.config.ConfigPostgreSQL test
INFO: OK: System Connection = jdbc:postgresql://localhost:5432/template1
Nov 01, 2020 5:11:38 PM org.adempiere.db.postgresql.config.ConfigPostgreSQL test
JDBC
SEVERE: org.postgresql.util.PSQLException: FATAL: password authentication failed
for user "adempiere"
Nov 01, 2020 5:11:38 PM org.adempiere.db.postgresql.config.ConfigPostgreSQL test
WARNING: Database imported? Cannot connect to User: adempiere/adempiere
Mail Server Host Name [localhost]:

Mail User Login []:
admin
Mail User Password []:
admin
Administrator EMail []:
admin2
testPort[127.0.0.1, 25]
Nov 01, 2020 5:11:53 PM org.compiere.install.ConfigurationData testPort
WARNING: Open Socket localhost/127.0.0.1:25 - Connection refused (Connection ref
used)
Nov 01, 2020 5:11:53 PM org.compiere.install.ConfigurationData testMailServer
```

iDempiere: Configuración (IV)

```
ubuntu@ubuntu-VirtualBox: /opt/idempiere-server
Nov 01, 2020 5:11:53 PM org.compiere.install.ConfigurationData testPort
WARNING: Open Socket localhost/127.0.0.1:25 - Connection refused (Connection refused)
Nov 01, 2020 5:11:53 PM org.compiere.install.ConfigurationData testMailServer
INFO: SMTP Server NOT available
testPort[127.0.0.1, 110]
Nov 01, 2020 5:11:53 PM org.compiere.install.ConfigurationData testPort
WARNING: Open Socket localhost/127.0.0.1:110 - Connection refused (Connection refused)
Nov 01, 2020 5:11:53 PM org.compiere.install.ConfigurationData testMailServer
INFO: POP3 Server NOT available
testPort[127.0.0.1, 143]
Nov 01, 2020 5:11:53 PM org.compiere.install.ConfigurationData testPort
WARNING: Open Socket localhost/127.0.0.1:143 - Connection refused (Connection refused)
Nov 01, 2020 5:11:53 PM org.compiere.install.ConfigurationData testMailServer
INFO: IMAP4 Server NOT available
Nov 01, 2020 5:11:53 PM org.compiere.install.ConfigurationData testMailServer
WARNING: No active Mail Server
Nov 01, 2020 5:11:53 PM org.compiere.install.ConfigurationData testMail
WARNING: Not verified EMail = admin2
Save changes (Y/N) [Y]:
Y
Nov 01, 2020 5:11:58 PM org.compiere.util.Ini loadProperties
WARNING: /opt/idempiere-server/idempiere.properties not found
```

iDempiere: Configuración (V)

```
ubuntu@ubuntu-VirtualBox: /opt/idempiere-server
Save Changes (Y/n) [Y].
Y
Nov 01, 2020 5:11:58 PM org.compiere.util.Ini loadProperties
WARNING: /opt/idempiere-server/idempiere.properties not found
Nov 01, 2020 5:11:58 PM org.compiere.util.Ini loadProperties
INFO: /opt/idempiere-server/idempiere.properties #27
Nov 01, 2020 5:11:58 PM org.compiere.install.ConfigurationData save
INFO: /opt/idempiere-server/idempiereEnv.properties
Changes save successfully.
file=/opt/idempiere-server/org.adempiere.install/build.xml exists=false
Buildfile: build.xml

setupInit:
[echo] idempiere Server Setup =====
[echo] IDEMPIERE_HOME = ${env.IDEMPHERE_HOME}
[echo] Environment = idempiereEnv.properties
[echo] Java VM = ${ADEMPIERE_JAVA_TYPE}
[echo] Database = PostgreSQL
[echo] Windows=${isWindows}
[copy] Copying 1 file to /opt/idempiere-server/jettyhome/etc
[copy] Copying 1 file to /opt/idempiere-server/jettyhome/etc
[copy] Copying 1 file to /opt/idempiere-server/jettyhome/etc
[copy] Copying 1 file to /opt/idempiere-server/jettyhome/etc
[copy] Copying 1 file to /opt/idempiere-server
[copy] Copying 1 file to /opt/idempiere-server
[mkdir] Created dir: /opt/idempiere-server/log
```

```
ubuntu@ubuntu-VirtualBox: /opt/idempiere-server

[echo] Database = PostgreSQL
[echo] Windows=${isWindows}
[copy] Copying 1 file to /opt/idempiere-server/jettyhome/etc
[copy] Copying 1 file to /opt/idempiere-server/jettyhome/etc
[copy] Copying 1 file to /opt/idempiere-server/jettyhome/etc
[copy] Copying 1 file to /opt/idempiere-server/jettyhome/etc
[copy] Copying 1 file to /opt/idempiere-server
[mkdir] Created dir: /opt/idempiere-server/log

setupWin:

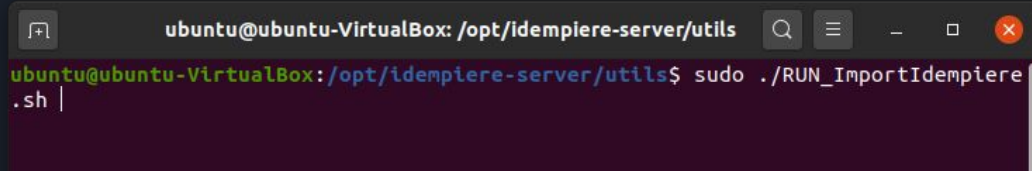
setupNonWin:
[copy] Copying 1 file to /opt/idempiere-server/utills
[copy] Copying 1 file to /opt/idempiere-server/utills
[copy] Copying 1 file to /opt/idempiere-server/utills

setup:
BUILD SUCCESSFUL

BUILD SUCCESSFUL
Total time: 0 seconds
.
For problems, check log file in base directory
ubuntu@ubuntu-VirtualBox:/opt/idempiere-server$
```



iDempiere: Configuración (VI)

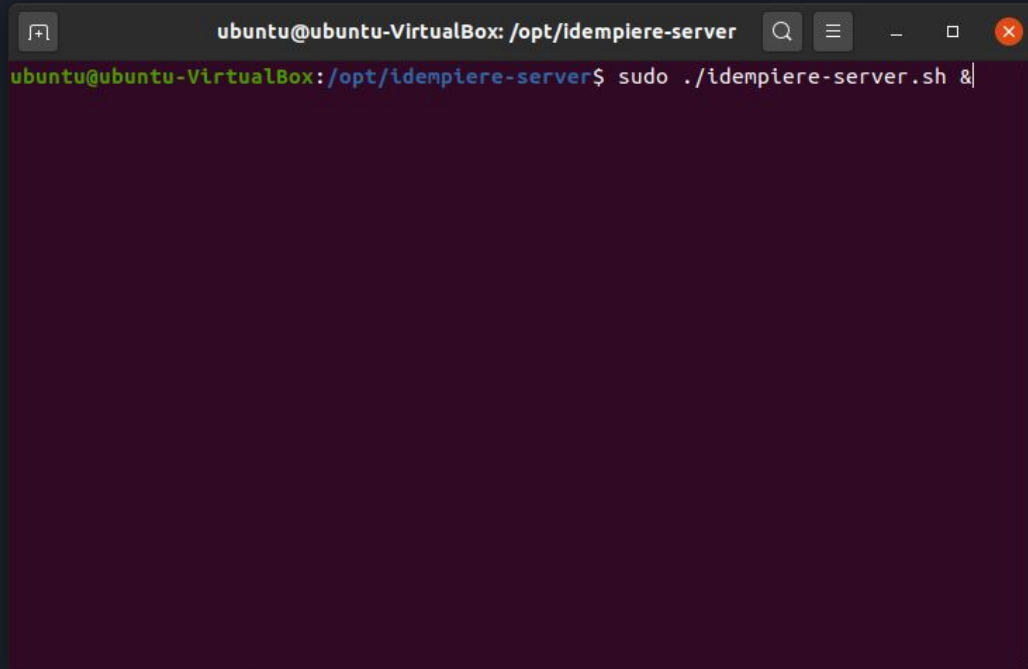


```
ubuntu@ubuntu-VirtualBox: /opt/idempiere-server/utils
ubuntu@ubuntu-VirtualBox:/opt/idempiere-server/utils$ sudo ./RUN_ImportIdempiere
.sh |
```

- Crea el esquema de la base de datos



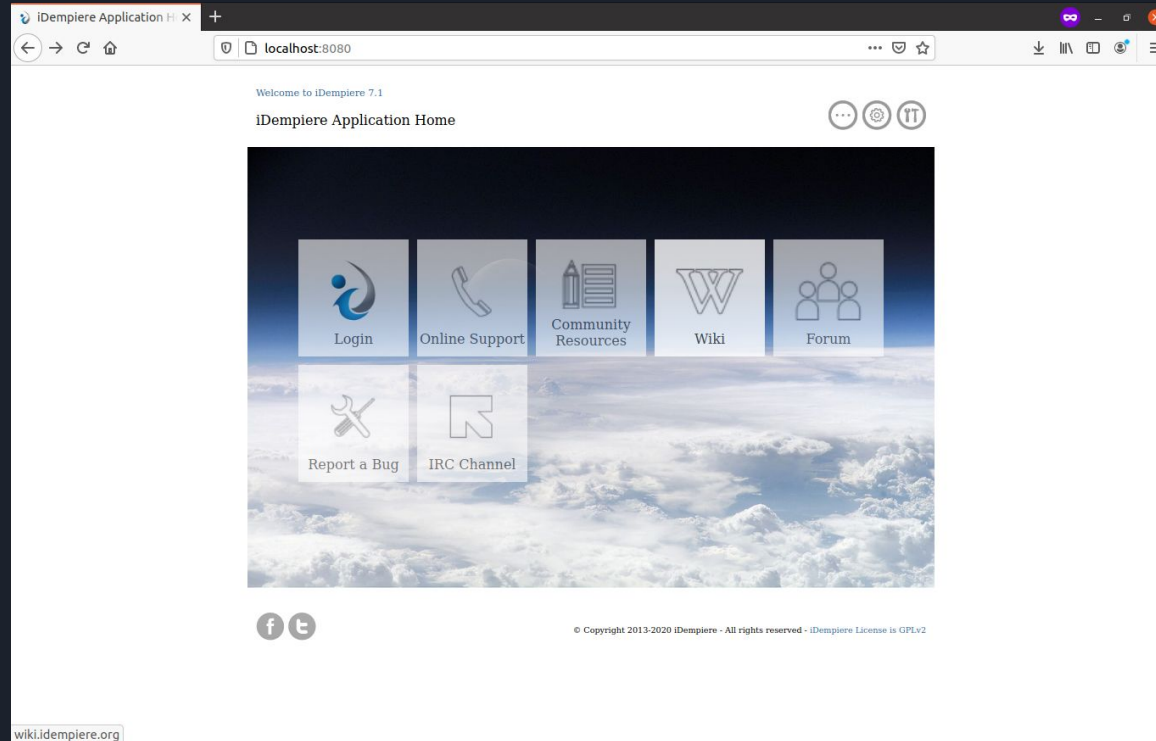
iDempiere: Arranque (I)



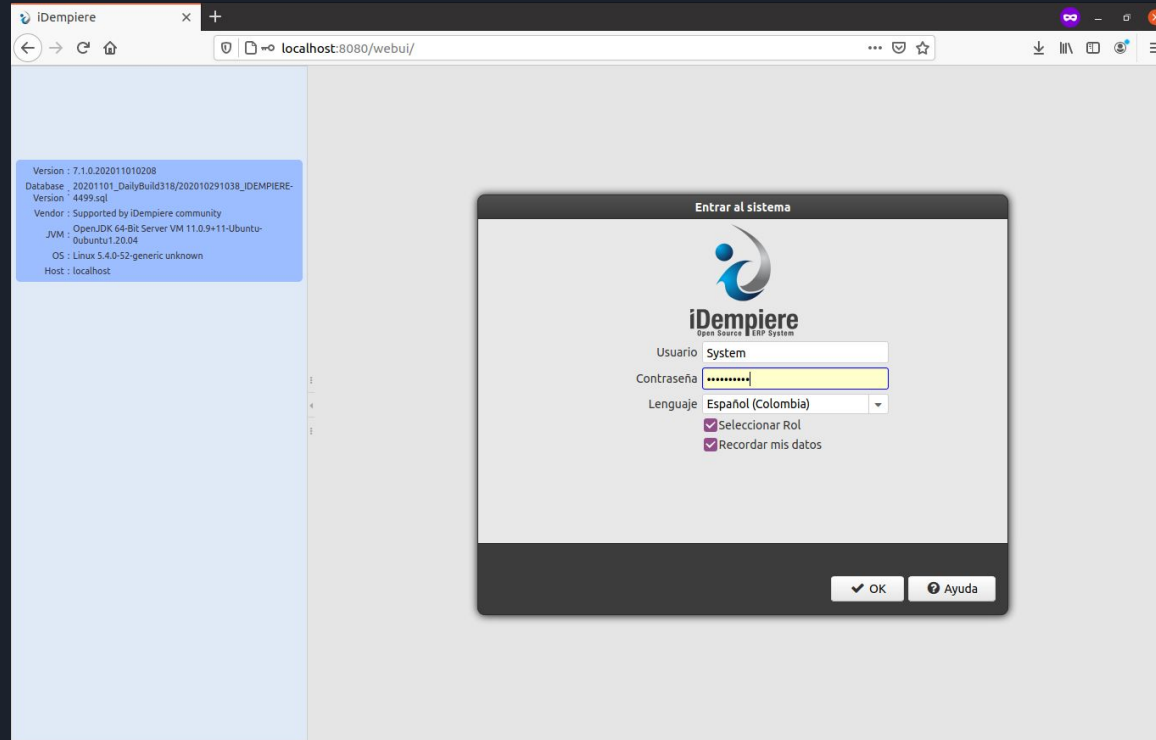
```
ubuntu@ubuntu-VirtualBox: /opt/idempiere-server$ sudo ./idempiere-server.sh &
```

A terminal window with a dark gray title bar. The title bar contains the text 'ubuntu@ubuntu-VirtualBox: /opt/idempiere-server' and standard window control icons (search, menu, close). The terminal area has a dark purple background. The command 'sudo ./idempiere-server.sh &' is entered at the prompt 'ubuntu@ubuntu-VirtualBox: /opt/idempiere-server\$'.

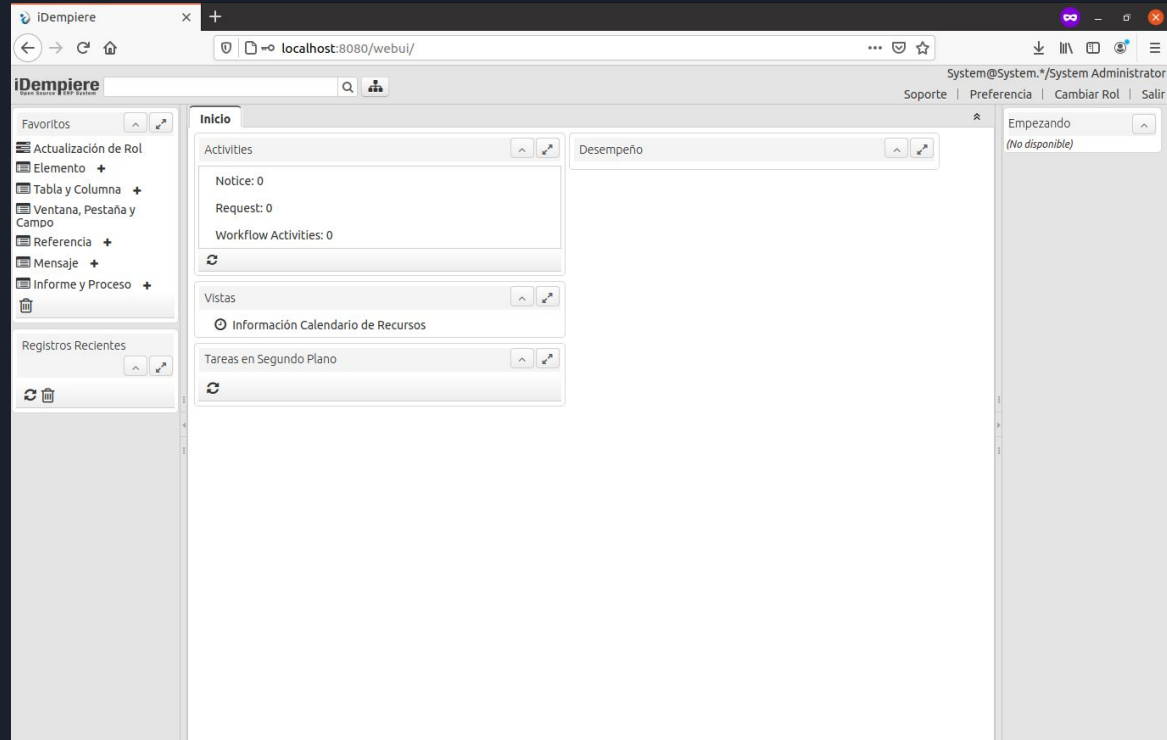
iDempiere: Arranque (II)



iDempiere: Arranque (III)

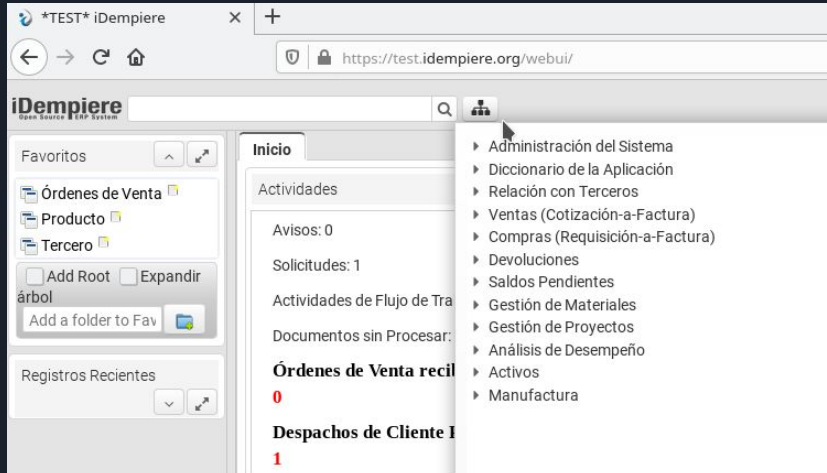


iDempiere: Arranque (IV)

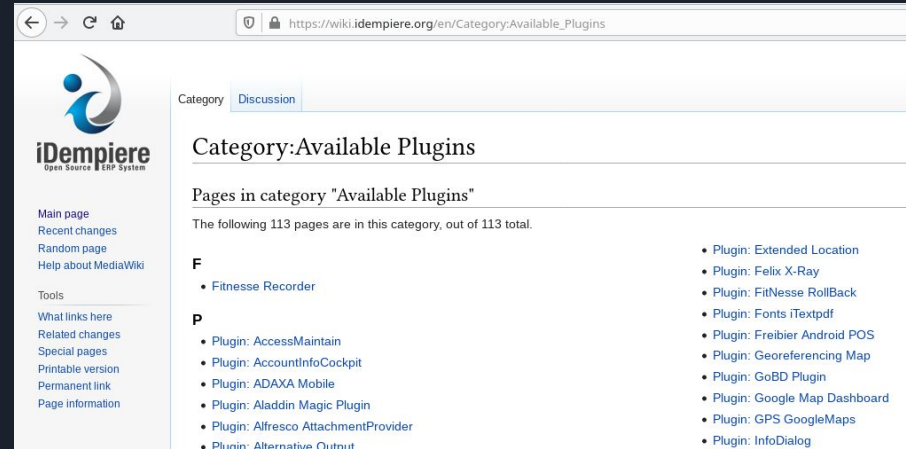


Funcionalidades

- Consta de 12 módulos en su núcleo que proporcionan la funcionalidad básica.
- Cuenta además con una amplia gama de plugins que podemos añadir para extender su funcionalidad.



Vista de los módulos en el menú de iDempiere

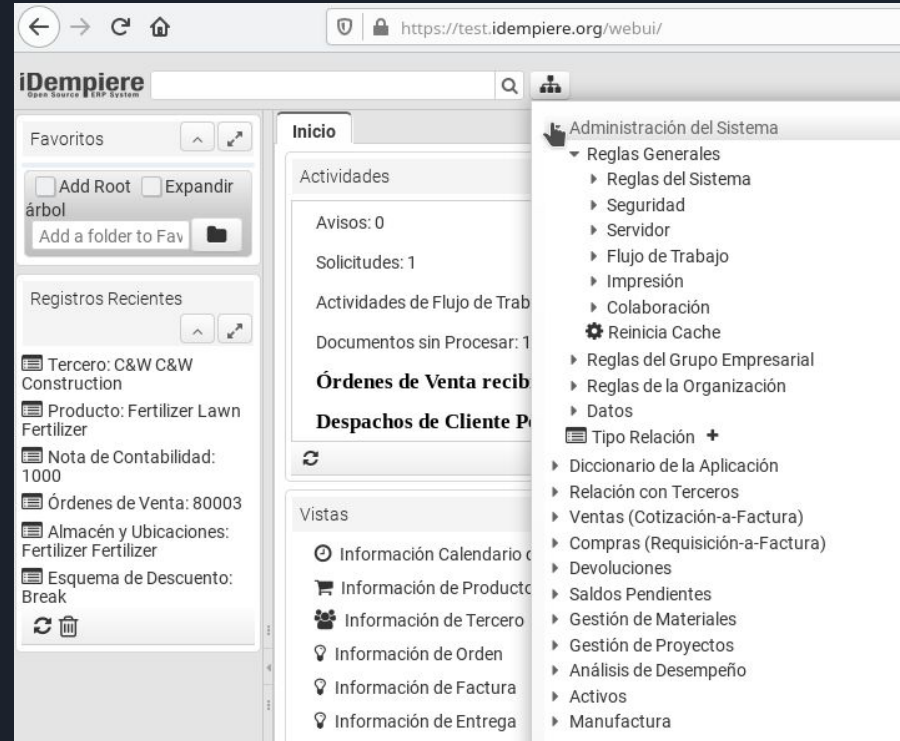


Listado de Plugins en la wiki de iDempiere

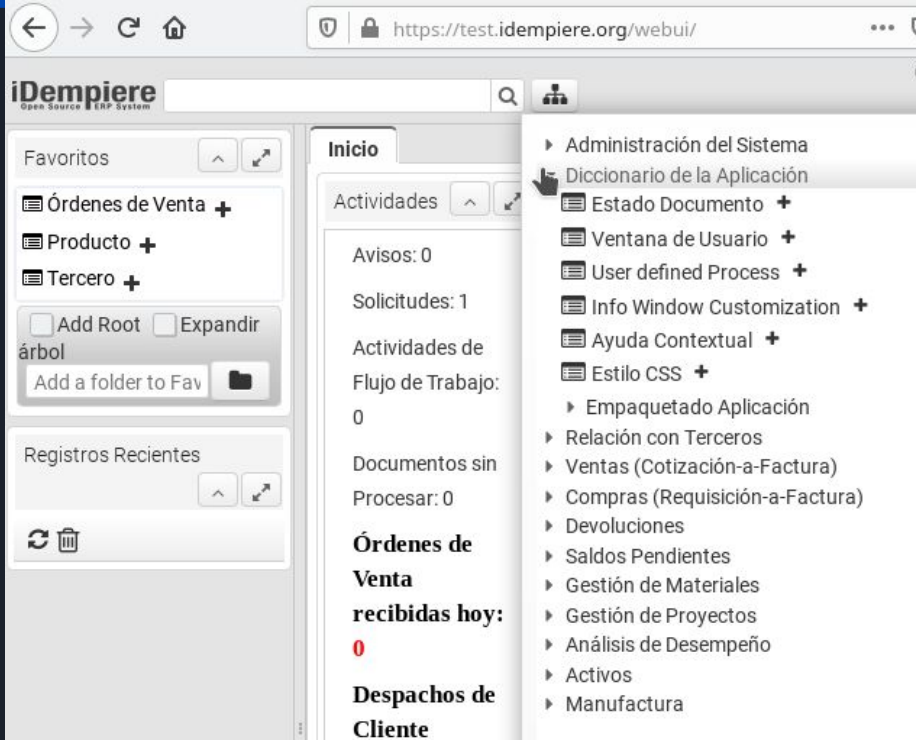
Funcionalidades

1. Administración del Sistema

- Configuración global del sistema.
- Gestión de usuarios, roles y responsabilidades.
- Gestión a nivel de Grupo Empresarial y de Organización



Funcionalidades



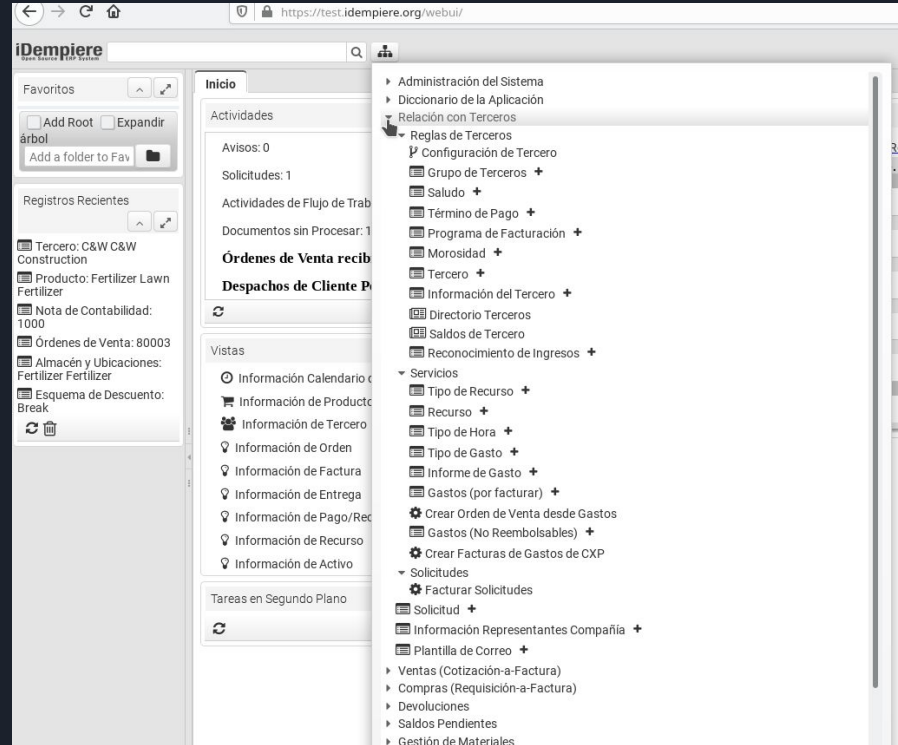
2. Diccionario de la Aplicación

- Administración de entidades, reglas de validación, ventanas, formatos, lógica de despliegue, etc.
- Gestión de metadatos.

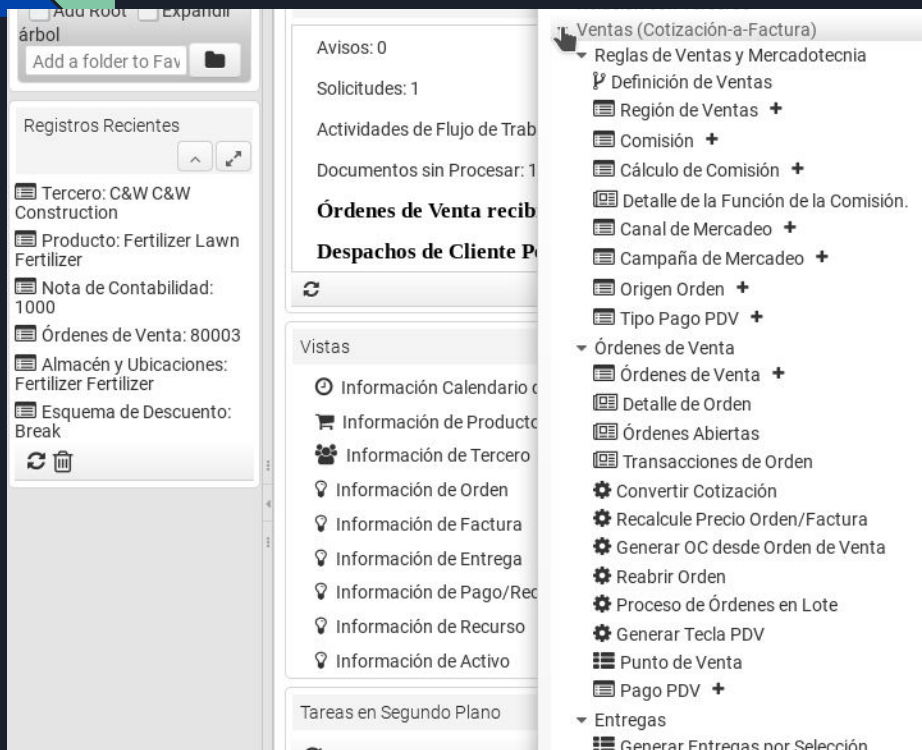
Funcionalidades

3. Relación con terceros

- Un tercero es cualquier persona natural o jurídica que no sea del grupo empresarial (clientes, proveedores y empleados).
- Gestión de sus fichas y relaciones.



Funcionalidades



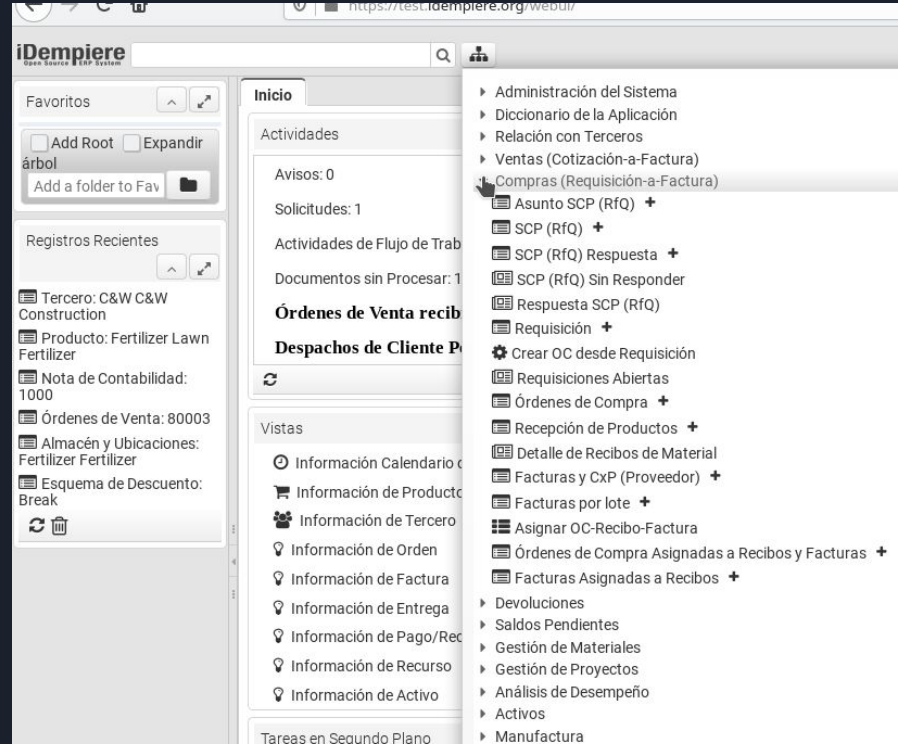
4. Ventas

- Mercadotecnia.
- Facturas.
- Entregas.

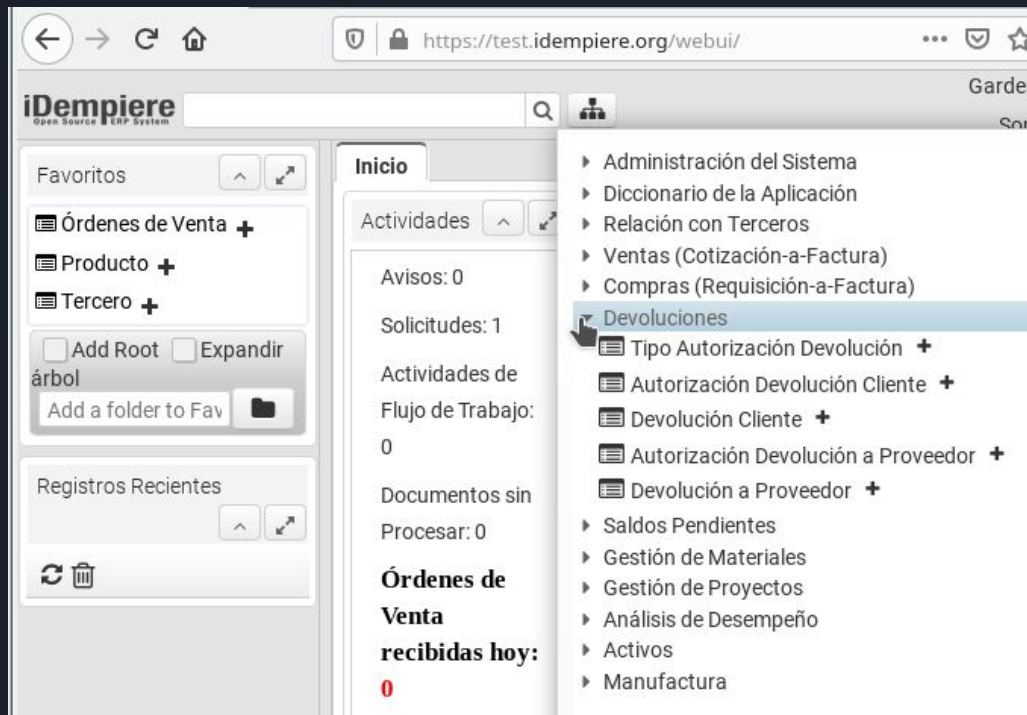
Funcionalidades

5. Compras

- Requisiciones.
- Recepción de productos.
- Facturas.



Funcionalidades



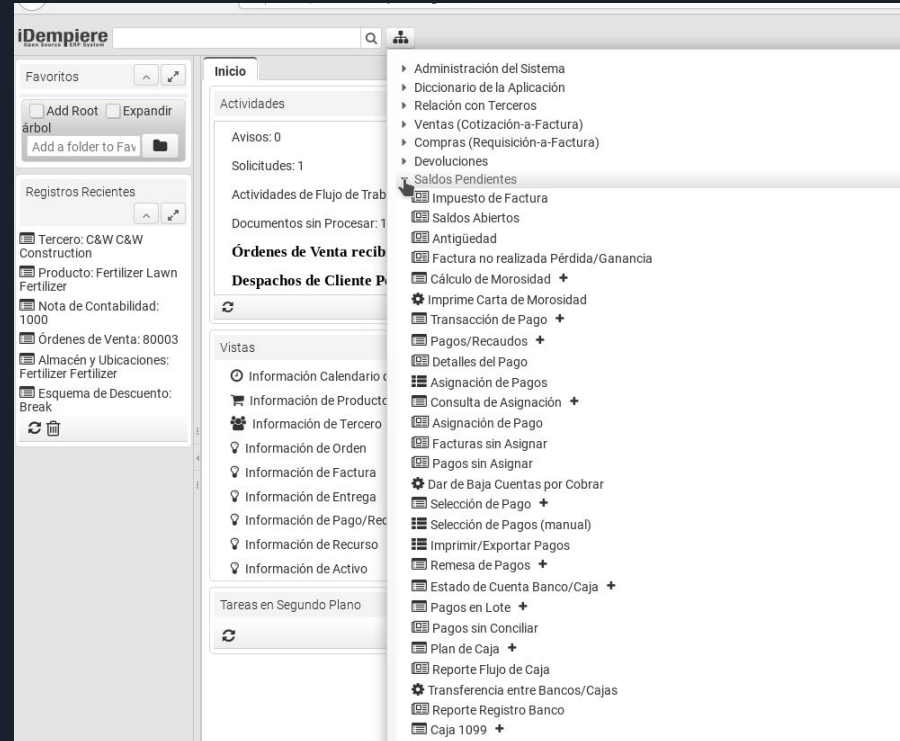
6. Devoluciones

- Autorizaciones de devolución a clientes y proveedores.

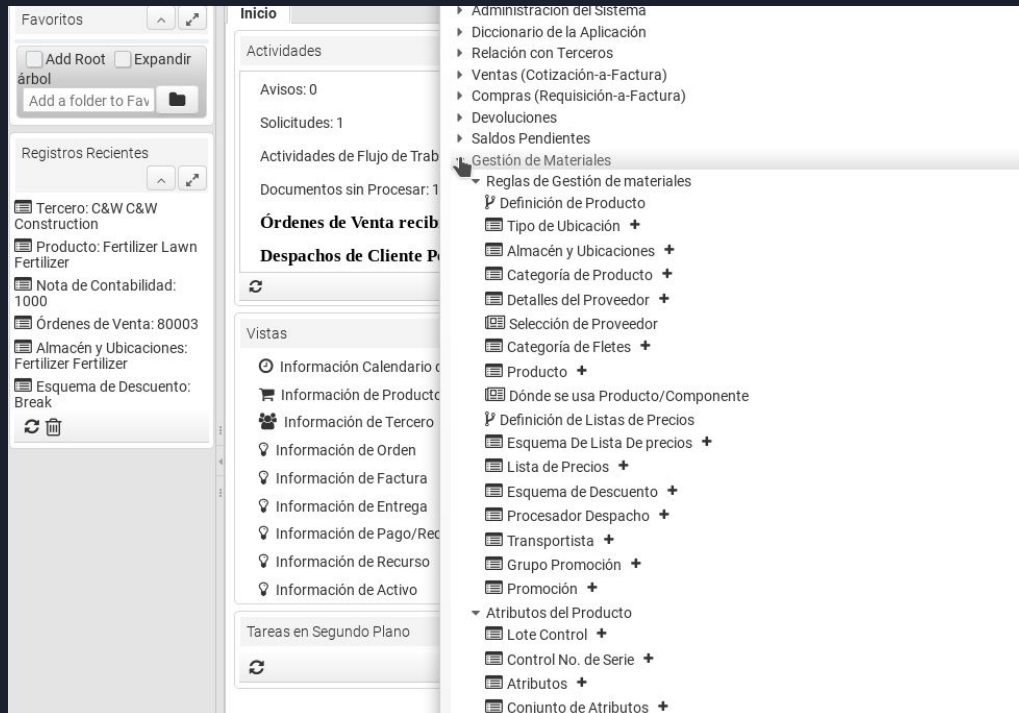
Funcionalidades

7. Saldos Pendientes

- Administración de la entrada de dinero por parte de los clientes y la salida para los proveedores.
- Relación con el banco.



Funcionalidades



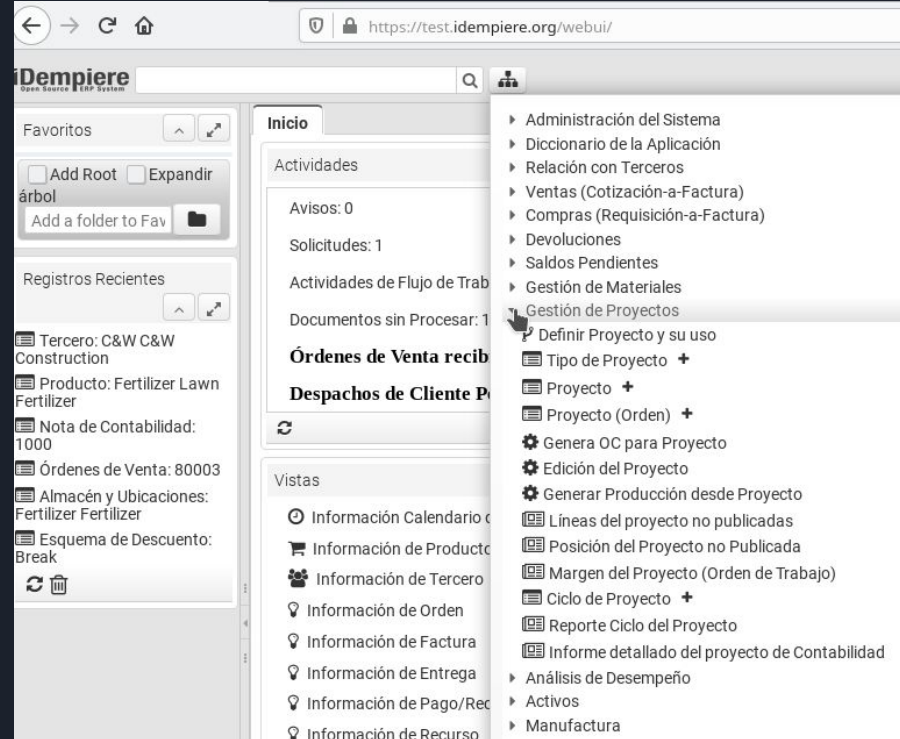
8. Gestión de Materiales

- Productos.
- Almacenes.
- Transportistas.
- Promociones.

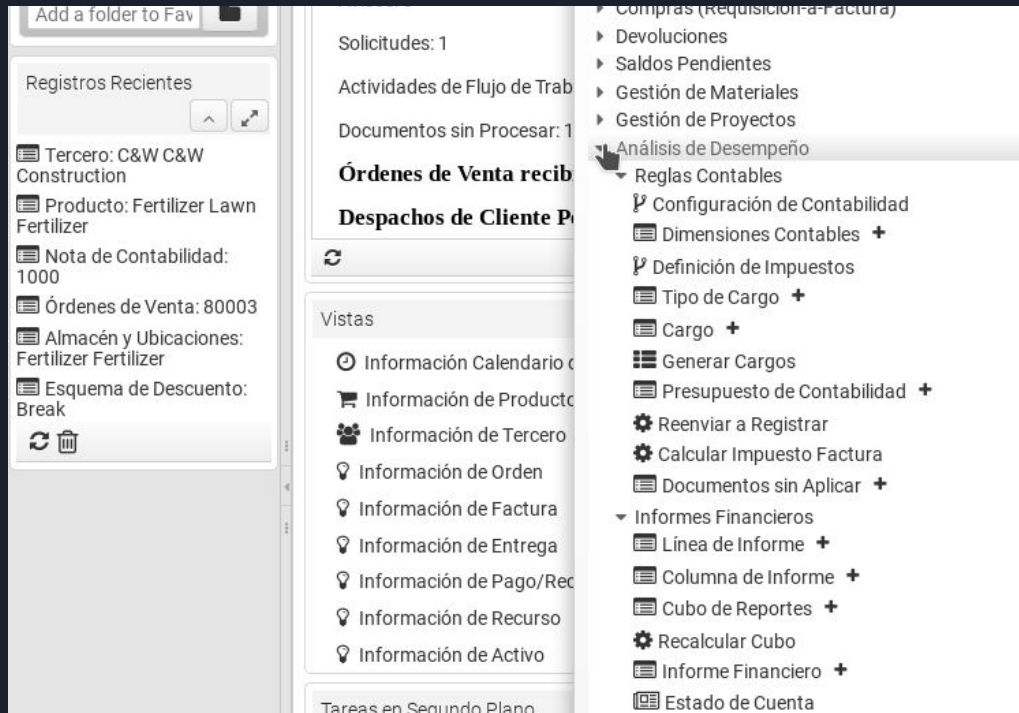
Funcionalidades

9. Gestión de proyectos

- Permite monitorizar el estado y progreso de oportunidades de ventas, proyectos de servicio y proyectos de inversión.
- Definición de fases y asignación de tareas.



Funcionalidades



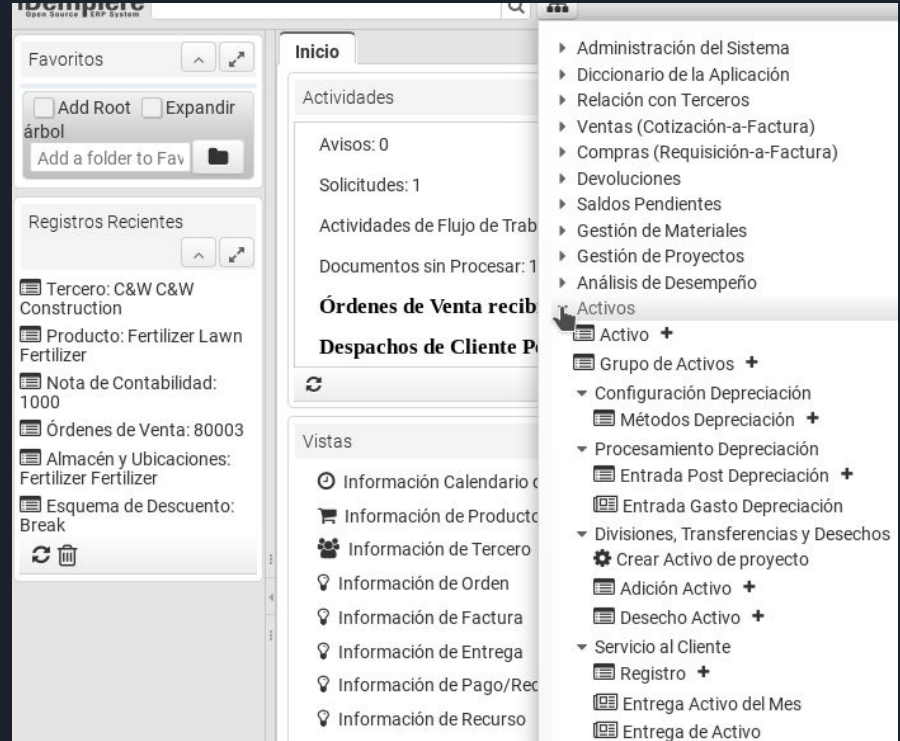
10. Análisis de Desempeño

- Contabilidad de la empresa.
- Informes financieros.

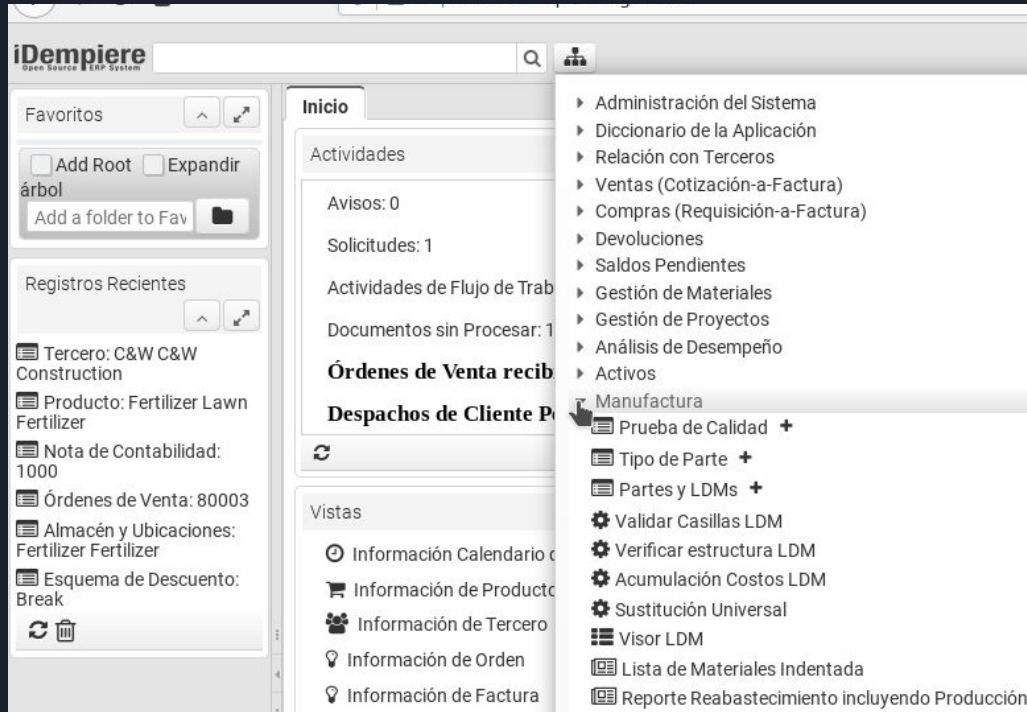
Funcionalidades

11. Activos

- Gestión de los activos financieros.
- Control de la depreciación.



Funcionalidades



12. Manufactura

- Administración de recursos.
- Reabastecimiento.
- Listado de materiales.



Funcionalidades

Valoración:

- Todos los módulos tienen una justificada necesidad y no hay ninguno redundante.
- Cubre exhaustivamente las áreas de Marketing, Producción y Finanzas.
- Podría disponer de más funcionalidades orientadas a la gestión de los Recursos Humanos.



Ventajas

- Estructura multi tenant.
- Adaptable a múltiples organizaciones.
- Multiusuario.
- Simultaneidad de distintas monedas.
- Sin vendor lock-in.
- No son necesarias licencias adicionales.
- Puede ejecutarse en la nube.
- Escalable.
- Comunidad abierta y activa para solución de problemas.
- Facilidad de crear e instalar plugins para personalización.
- Posibilidad de solicitar requisitos o funcionalidades nuevas.
- Representación gráfica de los datos.
- Integración con APIs de terceros.

Inconvenientes

- Instalación complicada.
- Errores poco intuitivos.
- Interfaz compleja.
- Curva de aprendizaje lenta.
- Uso de muchos tecnicismos.
- Pocos idiomas disponibles.

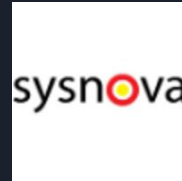


```
JVM terminated. Exit code=1
/usr/bin/java
-Dosgi.noShutdown=false
-Dosgi.compatibility.bootdelegation=true
-jar /opt/idempiere-server//plugins/-
org.eclipse.equinox.launcher_1.5.800.v20200727-1323.jar
-os linux
-ws gtk
-arch x86_64
-showsplash
-launcher /opt/idempiere-server/idempiere
-name Idempiere
-launcher.library /opt/idempiere-server/plugins/-
org.eclipse.equinox.launcher.gtk.linux.x86_64_1.1.1300.v20200819-0940/-
eclipse_11103.so
-startup /opt/idempiere-server//plugins/-
org.eclipse.equinox.launcher_1.5.800.v20200727-1323.jar
-launcher.overrideVmargs
-exitdata 3802c
-install setup
-application org.adempiere.install.console-application
-vm /usr/bin/java
-vmargs
-Dosgi.noShutdown=false
-Dosgi.compatibility.bootdelegation=true
-jar /opt/idempiere-server//plugins/-
org.eclipse.equinox.launcher_1.5.800.v20200727-1323.jar
```

Close

Empresas que lo han implantado

- SCM Software Lab.
- Logilite Technologies.
- Smart JSP.
- LCR Group.
- Sysnova Information.
- Navicu.





Fuentes consultadas

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