

Configuración ADF Essentials, Glassfish, DB2

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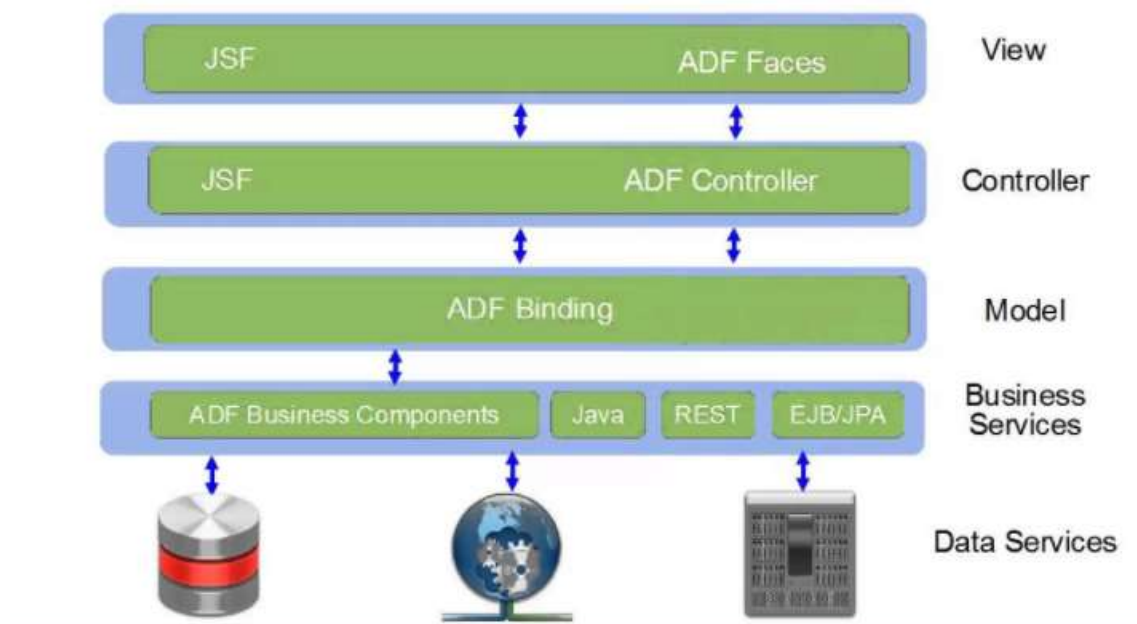
Propósito

Probar una aplicación Oracle ADF con un servidor de aplicaciones Open Source Glassfish y una base de datos DB2.

ADF Essentials

Se trata de un conjunto de librerías que cubre todas las capas de la arquitectura JavaEE.

Oracle ADF Essentials Features



Soporta:

- ADF Faces / JSF, incluye todos los componentes visuales DVT (gráficos)
- ADF Controller, Managed bean, taskflows, etc.
- ADF Business Components (BC), servicios de negocio basado en base de datos relacionales.
- ADF Model capa de abstracción de los servicios de negocio, ADF BC, EJBs, Java clases, REST, etc.

No Soporta:

- ADF Mobile
- ADF Desktop Integration
- ADF Security
- ADF Web Service Data Control
- ADF Remote Taskflows
- ADF Business Component's Service Interfaces
- Oracle ADF Data Controls for BI
- Integración con Oracle Fusion Middleware tales como MDS, OPSS, OWSM, Enterprise Manager y MBeans

Versiones

- ADF Essentials 12.2.1.3
- JDeveloper 12.2.1.3
- GlassFish Server Open Source Edition 4.1.2
- DB2 Express-C

Instalación DB2

Para la instalación de DB2 he utilizado un contenedor Docker:

```
docker run ^
--name db2 ^
-p 50000:50000 ^
-e DB2INST1_PASSWORD=password ^
-e LICENSE=accept ^
-d ibmcom/db2express-c db2start
```

Para ver el contenedor:

```
docker ps -as
```

Para iniciar a parar la base de datos:

```
docker start db2
docker stop db2
```

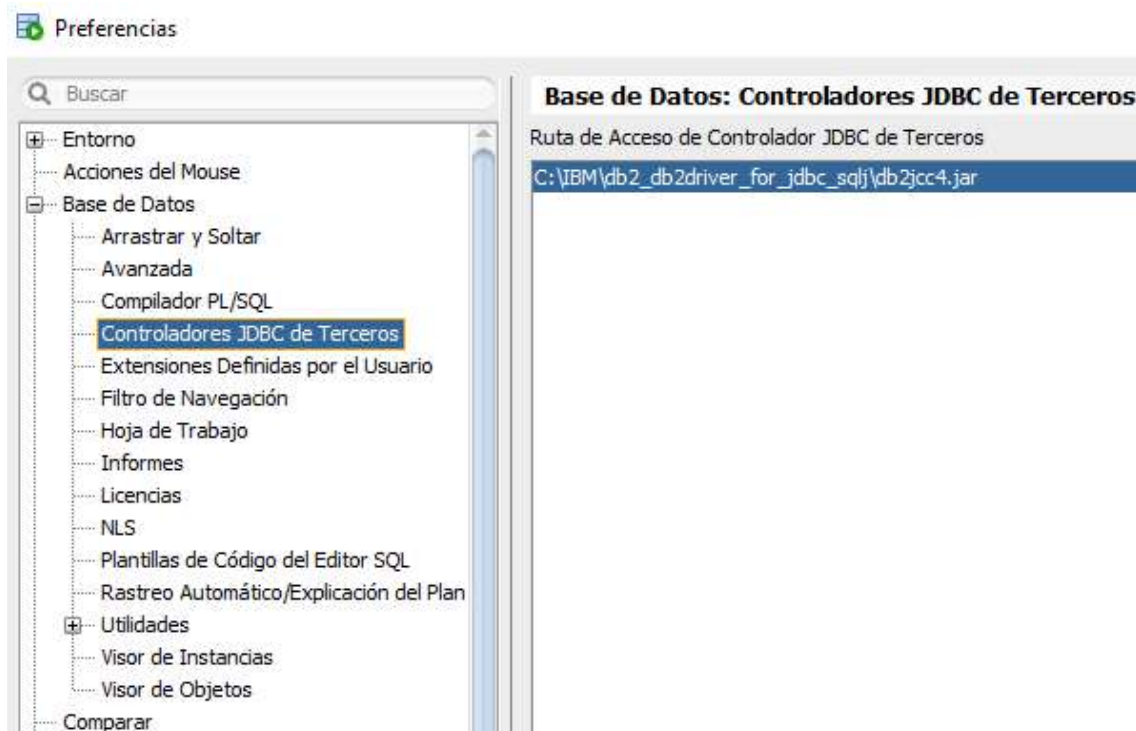
Para abrir el terminal bash y acceder con el usuario con permisos a la base de datos:

```
docker exec -i -t db2 /bin/bash
su - db2inst1
```

Existe un comando para crear una base de datos de ejemplo:

db2samp1

Se puede configurar SQL Developer para DB2 accediendo al menú preferencias y configurando controladores JDBC de terceros.



Y configurar la conexión:



Instalación GlassFish

1. Instalar [Java 8](#)
2. Descargar y descomprimir versión Full de [GlassFish](#)
3. Las librerías adf-essentials.zip se tienen que descomprimir en la carpeta de Glassfish:

```
{GLASSFISH_HOME}/glassfish/domains/domain1/lib
```

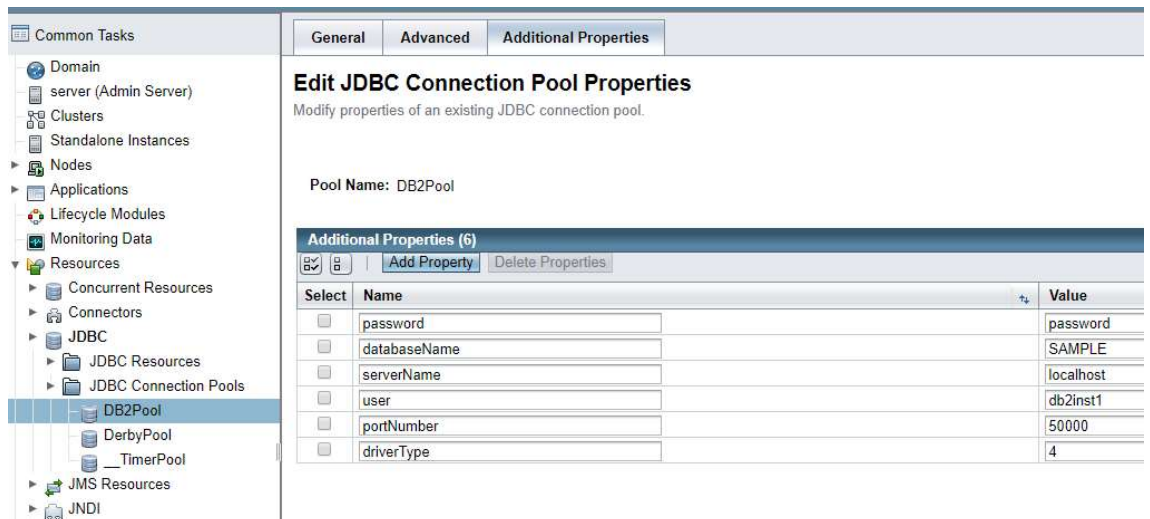
sin respetar la estructura de carpetas del zip

```
unzip -j adf-essentials.zip -d  
{GLASSFISH_HOME}/glassfish/domains/domain1/lib
```

4. Tenemos que reemplazar los siguientes ficheros:
 - a. {GLASSFISH_HOME}/glassfish/modules/javax.faces.jar por [javax.faces-2.2.8-11.jar](#)
 - b. {GLASSFISH_HOME}/glassfish/modules/javax.el.jar por [javax.el-3.0.1-b08.jar](#)
5. Hay que descargar el driver JDBC DB2 [db2jcc.jar](#) y se tiene que copiar en:
`{GLASSFISH_HOME}/glassfish/domains/domain1/lib/db2jcc.jar`
6. Iniciamos Glassfish:
`{GLASSFISH_HOME}/bin/asadmin start`
7. Entramos a la consola de administración <http://localhost:4848>
8. Vamos a configurar la máquina virtual de java en server-config, JVM Settings, JVM Options.
 - a. Eliminar:
 - -XX:MaxPermSize=192m
 - b. Añadir:
 - -XX:MetaspaceSize=512m
 - -XX:MaxMetaspaceSize=512m
 - -Doracle.mds.cache=simple
 - c. Configuramos el pool de conexión de base de datos.

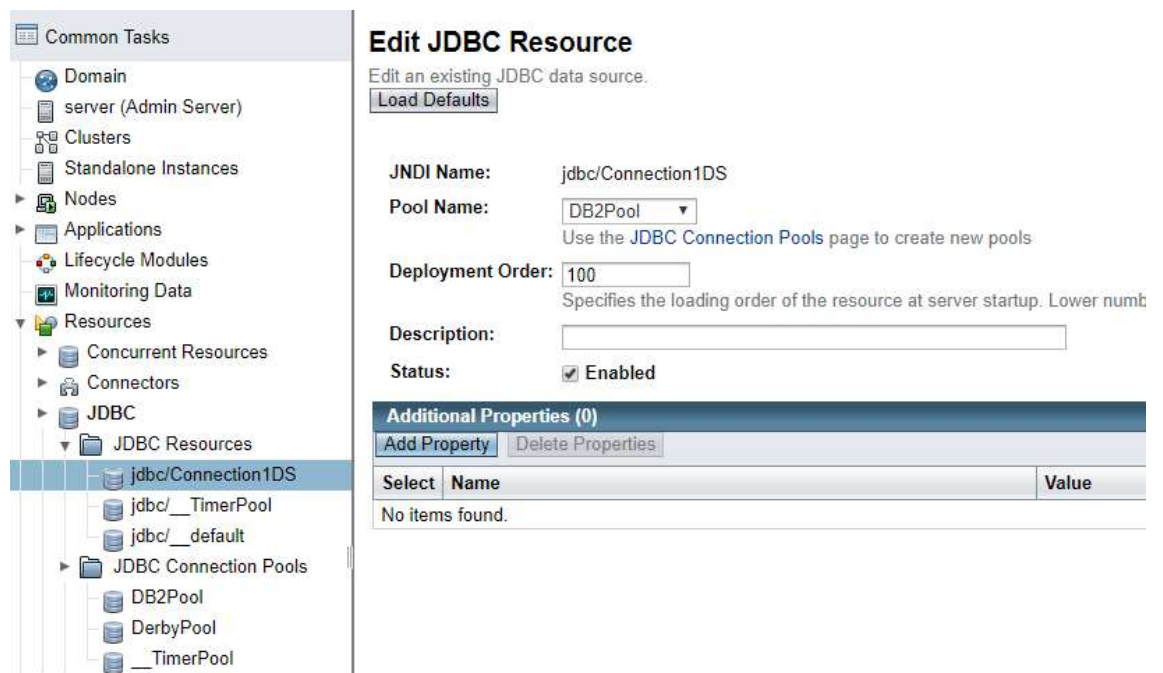
The screenshot shows the GlassFish administration console interface. On the left is a tree view of the system configuration, with 'Resources' > 'JDBC' > 'JDBC Connection Pools' > 'DB2Pool' selected. The main panel displays the 'Edit JDBC Connection Pool' configuration for 'DB2Pool'. The 'General Settings' section includes fields for 'Pool Name' (DB2Pool), 'Resource Type' (java.sql.Driver), 'Datasource Classname' (com.ibm.db2.jcc.DB2SimpleDataSource), and 'Driver Classname' (com.ibm.db2.jcc.DB2SimpleDataSource). The 'Ping' checkbox is checked and labeled 'Enabled'. The 'Deployment Order' is set to 100. The 'Pool Settings' section includes 'Initial and Minimum Pool Size' (8 Connections), 'Maximum Pool Size' (32 Connections), 'Pool Resize Quantity' (2 Connections), 'Idle Timeout' (300 Seconds), and 'Max Wait Time' (60000 Milliseconds). Each setting has a brief description below it.

Section	Property	Value	Description
General Settings	Pool Name	DB2Pool	
	Resource Type	java.sql.Driver	Must be specified if the datasource class implements more than 1 of the interface.
	Datasource Classname	com.ibm.db2.jcc.DB2SimpleDataSource	Vendor-specific classname that implements the DataSource and/or XADataSource APIs
	Driver Classname	com.ibm.db2.jcc.DB2SimpleDataSource	Vendor-specific classname that implements the java.sql.Driver interface.
Pool Settings	Ping	Enabled	When enabled, the pool is pinged during creation or reconfiguration to identify and warn of any erroneous connections.
	Deployment Order	100	Specifies the loading order of the resource at server startup. Lower numbers are loaded first.
	Initial and Minimum Pool Size	8 Connections	Minimum and initial number of connections maintained in the pool
	Maximum Pool Size	32 Connections	Maximum number of connections that can be created to satisfy client requests
	Pool Resize Quantity	2 Connections	Number of connections to be removed when pool idle timeout expires



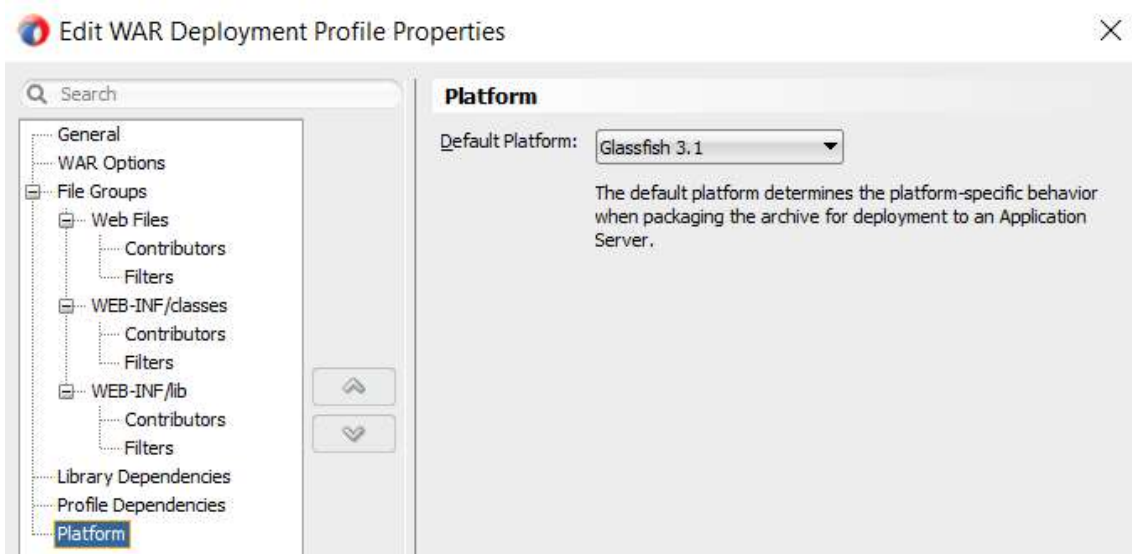
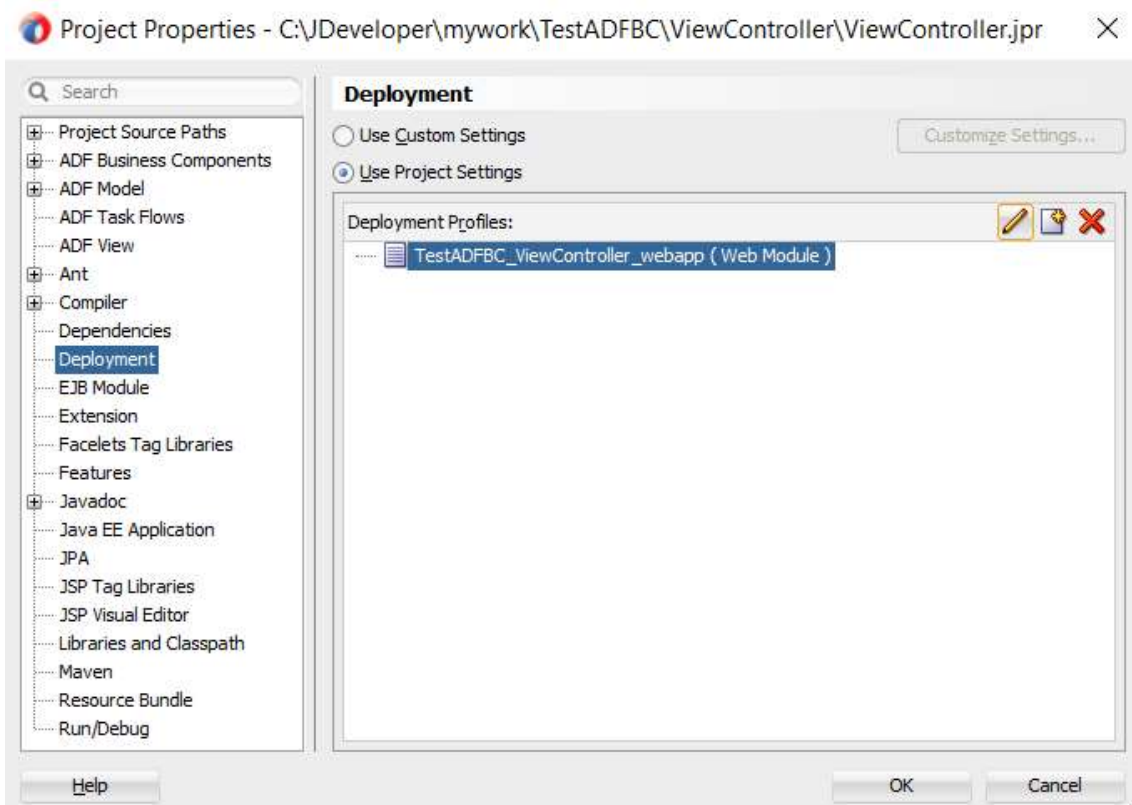
d. Configuramos el recurso JDBC.

El recurso JNDI Name tiene que coincidir con el Data Source Name del Application Module de ADF.

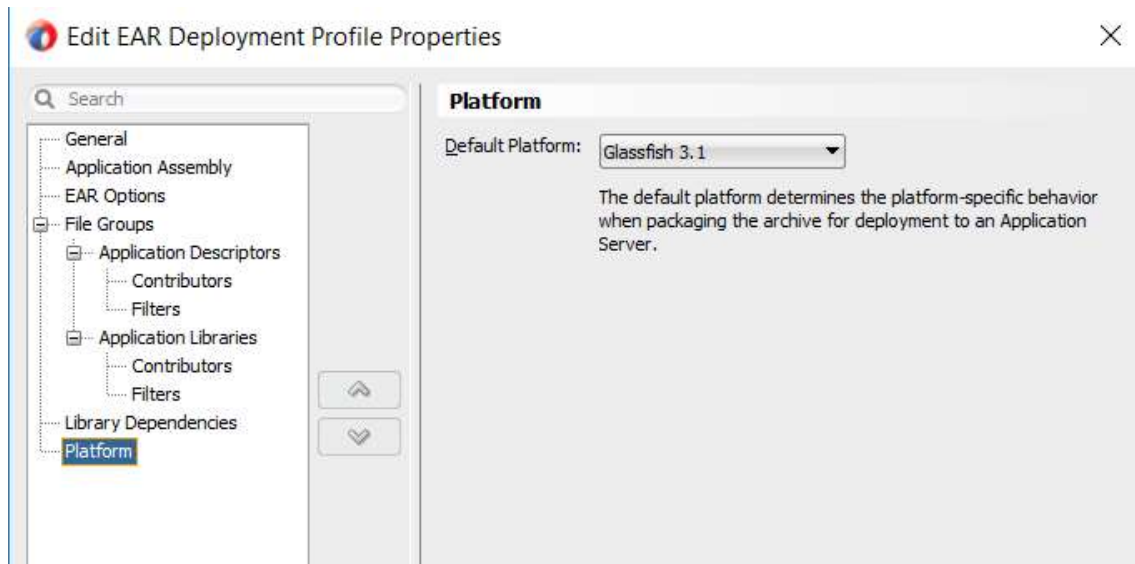


Despliegue JDeveloper

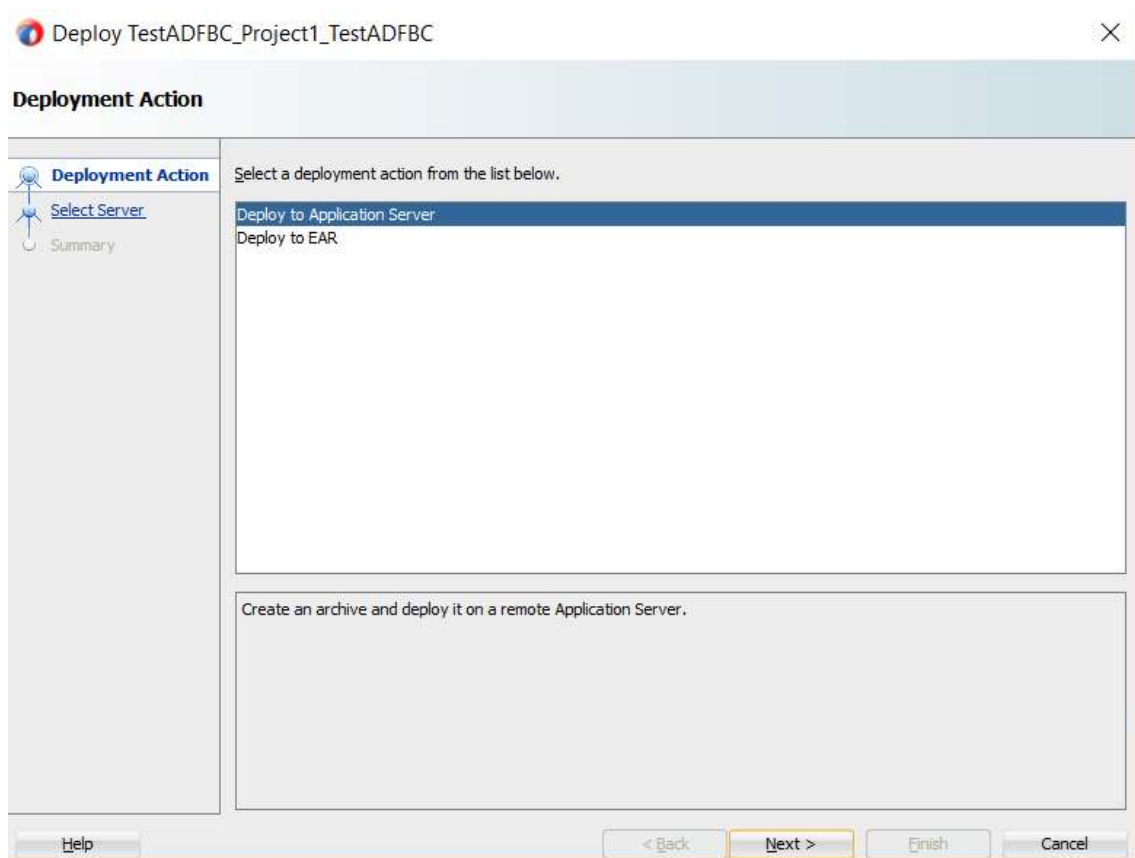
Para poder desplegar una aplicación ADF en Glassfish vamos a las propiedades del proyecto ViewController, Deployment, editamos y en platform seleccionamos Glassfish.

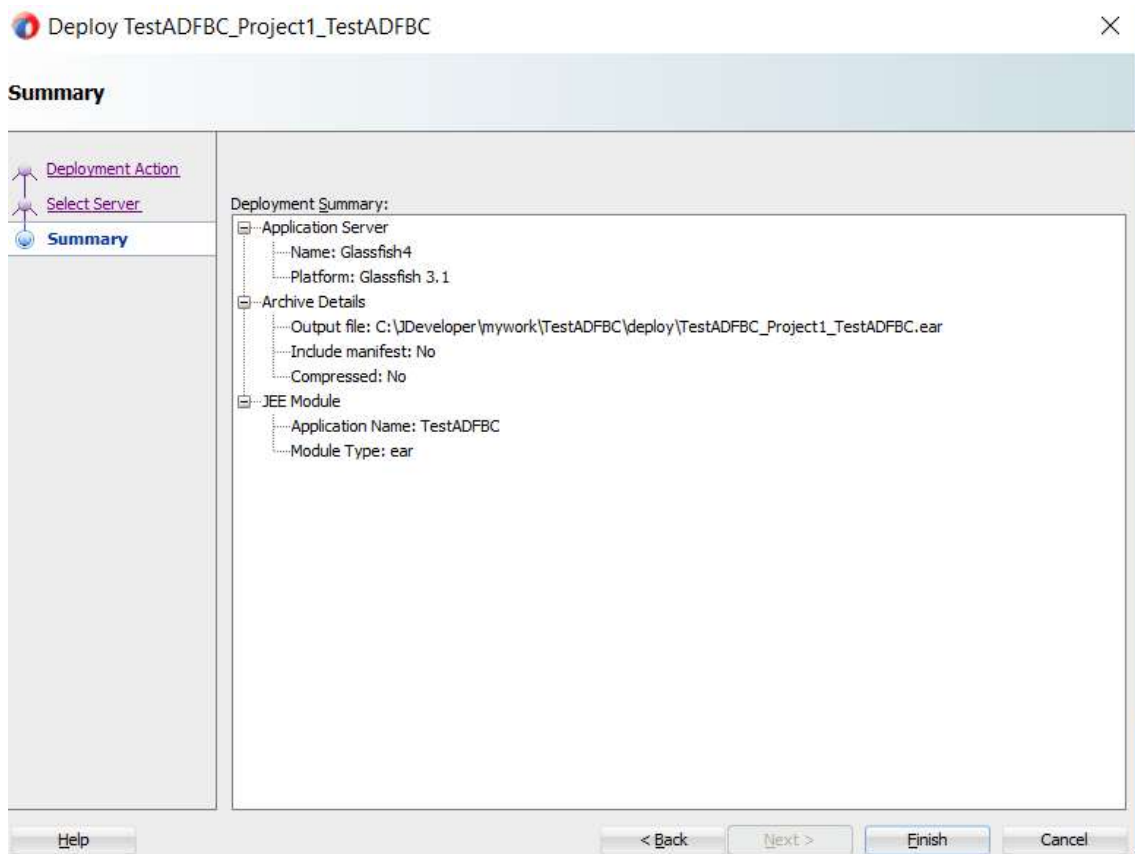


Tenemos que hacer algo parecido, pero ahora desde las propiedades de la aplicación.



Podemos desplegar de dos maneras, o creamos un EAR y lo desplegamos desde la consola administrativa de Glassfish o directamente desde JDeveloper seleccionando Deploy to Application Server.





Y ya está la aplicación ejecutándose sin ningún problema en <http://localhost:8080/ViewController/faces/index>

< Volver Ver Separar

Graph

Departamnet

	Firstname	Midinit	Lastname	Workdept	Phoneno	Hiredate	Job	Edlevel
	CHRISTINE	I	HAAS	A00	3978	1/01/1995	PRES	18
	MICHAEL	L	THOMPSON	B01	3476	10/10/2003	MANAGER	18
	SALLY	A	KWAN	C01	4738	5/04/2005	MANAGER	20
	JOHN	B	GEYER	E01	6789	17/08/1979	MANAGER	16
	IRVING	F	STERN	D11	6423	14/09/2003	MANAGER	16
	EVA	D	PULASKI	D21	7831	30/09/2005	MANAGER	16
	EILEEN	W	HENDERSON	E11	5498	15/08/2000	MANAGER	16
	THEODORE	Q	SPENSER	E21	0972	19/06/2000	MANAGER	14
	VINCENZO	G	LUCCHESI	A00	3490	16/05/1988	SALESREP	19
	SEAN		O'CONNELL	A00	2167	5/12/1993	CLERK	14
	DELORES	M	QUINTANA	C01	4578	28/07/2001	ANALYST	16
	HEATHER	A	NICHOLLS	C01	1793	15/12/2006	ANALYST	18
	BRUCE		ADAMSON	D11	4510	12/02/2002	DESIGNER	16
	ELIZABETH	R	PIANKA	D11	3782	11/10/2006	DESIGNER	17
	MASATOSHI	J	YOSHIMURA	D11	2890	15/09/1999	DESIGNER	16
	MARILYN	S	SCOUTTEN	D11	1682	7/07/2003	DESIGNER	17
	JAMES	H	WALKER	D11	2986	26/07/2004	DESIGNER	16
	DAVID		BROWN	D11	4501	3/03/2002	DESIGNER	16
	WILLIAM	T	JONES	D11	0942	11/04/1998	DESIGNER	17
	JENNIFER	K	LUTZ	D11	0672	29/08/1998	DESIGNER	18
	JAMES	J	JEFFERSON	D21	2094	21/11/1996	CLERK	14
	SALVATORE	M	MARINO	D21	3780	5/12/2004	CLERK	17
	DANIEL	S	SMITH	D21	0961	30/10/1999	CLERK	15

* Empno 000060

* Firstnme IRVING

Midinit F

* Lastname STERN

Workdept D11

Phoneno 6423

Hiredate 14/09/2003

Job MANAGER

* Edlevel 16

Sex M

Birthdate 7/07/1975

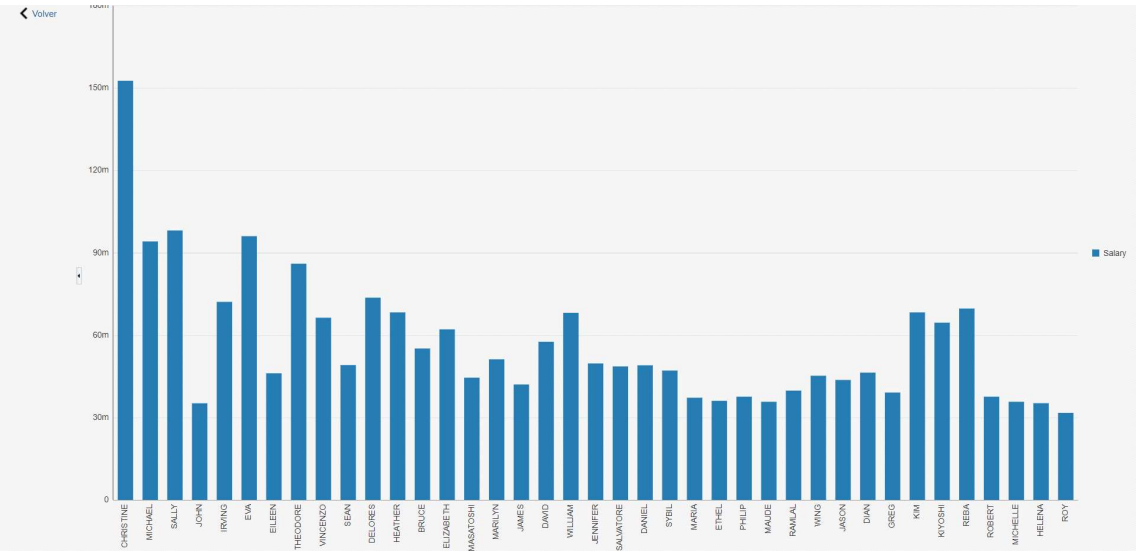
Salary 72250

Bonus 500

Comm 2580

First Previous Next Last

Aceptar Cancelar



Volver

DepartmentEOView1

Ver

Separar

Deptno	Deptname	Mgrno	Admrdept	Location
A00	SPIFFY COMP...	000010	A00	
B01	PLANNING	000020	A00	
C01	INFORMATION ...	000030	A00	
D01	DEVELOPMEN...		A00	
D11	MANUFACTURI...	000060	D01	
D21	ADMINISTRATI...	000070	D01	
E01	SUPPORT SER...	000050	A00	
E11	OPERATIONS	000090	E01	
E21	SOFTWARE SU...	000100	E01	
F22	BRANCH OFFI...		E01	
G22	BRANCH OFFI...		E01	
H22	BRANCH OFFI...		E01	
I22	BRANCH OFFI...		E01	
J22	BRANCH OFFI...		E01	

EmployeeEOView2

Ver

Separar

Empno	Firstnme	Midinit	Lastname	Workdept
000010	CHRISTINE	I	HAAS	A00
000110	VINCENZO	G	LUCCHESSI	A00
000120	SEAN		O'CONNELL	A00
200010	DIAN	J	HEMMINGER	A00
200120	GREG		ORLANDO	A00