EJB - PACKAGING APPLICATIONS

Requirement of Packaging applications using EJB 3.0 are similar to that of J2EE platform. Ejb components are packaged into modules as jar files and are packaged into application enterprise archive as ear file. There are majorly three components of any enterprise application.
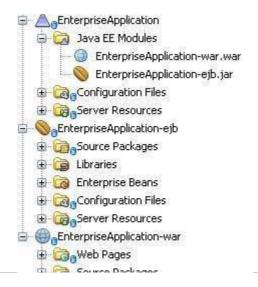
- **jar** - Java Application aRchive, containing ejb modules, ejb client modules and utility modules.

- **war** - Web Application aRchive, containing web modules.

- **ear** - Enterprise Application aRchive, containing jars and war module.

In NetBeans it is very easy to create, develop, package and deploy the J2EE applications.

In NetBeans IDE, select ,**File > New Project >**.Select project type under category,**Java EE**, Project type as **Enterprise Application**. Click **Next >** button.Enter project name and location. Click **Finish >** button. We've choosen name as EnterpriseApplicaton.

Select Server and Settings. Keep **Create EJB Module** and **Create Web Application Module** checked with default names provided. Click finish button. NetBeans will create the following structure in project window.

Right click on Project **Enterprise Application** in project explorer and select Build.

```
ant -f D:\\SVN\\EnterpriseApplication dist
pre-init:
init-private:
init-userdir:
init-user:
init-project:
do-init:
post-init:
init-check:
init:
deps-jar:
deps-j2ee-archive:
EnterpriseApplication-ejb.init:
EnterpriseApplication-ejb.deps-jar:
EnterpriseApplication-ejb.compile:
EnterpriseApplication-ejb.library-inclusion-in-manifest:

Building jar:
D:\SVN\EnterpriseApplication\EnterpriseApplication-ejb\dist\EnterpriseApplication-ejb.jar

EnterpriseApplication-ejb.dist-ear:
EnterpriseApplication-war.init:
EnterpriseApplication-war.deps-module-jar:
EnterpriseApplication-war.deps-ear-jar:
EnterpriseApplication-ejb.init:
EnterpriseApplication-ejb.deps-jar:
EnterpriseApplication-ejb.compile:
EnterpriseApplication-ejb.library-inclusion-in-manifest:
EnterpriseApplication-ejb.dist-ear:
EnterpriseApplication-war.deps-jar:
EnterpriseApplication-war.library-inclusion-in-archive:
EnterpriseApplication-war.library-inclusion-in-manifest:
EnterpriseApplication-war.compile:
EnterpriseApplication-war.compile-jsps:
EnterpriseApplication-war.do-ear-dist:

Building jar:
D:\SVN\EnterpriseApplication\EnterpriseApplication-war\dist\EnterpriseApplication-war.wa
r

EnterpriseApplication-war.dist-ear:
pre-pre-compile:
pre-compile:
Copying 1 file to D:\SVN\EnterpriseApplication\build
Copying 1 file to D:\SVN\EnterpriseApplication\build
do-compile:
post-compile:
compile:
pre-dist:
do-dist-without-manifest:
do-dist-with-manifest:

Building jar: D:\SVN\EnterpriseApplication\dist\EnterpriseApplication.ear

post-dist:
dist:
BUILD SUCCESSFUL (total time: 1 second)
```

Here you can see, Netbeans prepares Jar first, then War and in the end the ear file carrying the jar
and war file. Each jar,war and ear file carries a meta-inf folder to have meta data as per the J2EE
specification.