**ANT**

It stands for Another Neat tool

Normally to make a war/jar

1. We need to copy all the non java to **“build/classes”**
2. Complie java files in the src directory and copy .class files **“build/classes”**
3. Package all the content in **“build/classes”** and “Webcontent” as a WAR file
4. Deploy the war file in to webapps directory of tomcat
5. Cleanup **“build/classes”**

Ant automates it

<?xml version="1.0" encoding="UTF-8"?>  
<project>  
 <clean..></clean>  
 <compile-copy..></compile-copy..>  
 <package-war..></package-war..>  
 <deploy..></deploy..>  
</project>

<?xml version="1.0" encoding="UTF-8"?>  
<project default="test">  
 <target name="test">  
 <echo message="Hello"></echo>  
 <mkdir dir="someDir"></mkdir>  
 </target>  
</project>

<?xml version="1.0" encoding="UTF-8"?>  
<project basedir="." name="AntProject" default="test">  
 <target name="test">  
 <echo message="Hello"></echo>  
 <mkdir dir="someDir"></mkdir>  
 </target>  
</project>

**Basedir** = . means urrent directory where xml is residing, it can be changed

Target: contains list of tasks, can depend on another target

<?xml version="1.0" encoding="UTF-8"?>  
<project basedir="." name="AntProject" default="test">  
 <target name="test">  
 <echo message="Hello"></echo>  
 <mkdir dir="someDir"></mkdir>  
 </target>  
   
 <target name="another" depends="test">  
 <echo message="Hello"></echo>  
 <mkdir dir="someDir"></mkdir>  
 </target>  
</project>

<?xml version="1.0" encoding="UTF-8"?>  
<project basedir="." name="AntProject" default="test">  
 <property name="pi" value="3.14"></property>  
  
 <echo message="user defined property: ${pi}"></echo>  
 <echo message="System defined property: ${os.name} ${os.version} ${java.vm.vendor}"></echo>  
 <echo message="Built in property: ${basedir} ${ant.home} ${java.vm.vendor}"></echo>  
</project>

Compile and run java program

<?xml version="1.0" encoding="UTF-8"?>  
<project basedir="." name="AntProject" default="test">  
 <target name="compile">  
 <javac srcdir="."  
 includeantruntime="true"  
 includes="HelloWorld.java"  
 destdir=".">  
 </javac>  
 </target>  
  
 <target name="run" depends="compile">  
 <java classname="HelloWorld" fork="true">  
 <classpath>  
 <pathelement path="."></pathelement>  
 </classpath>  
 </java>  
 </target>  
</project>