You can find an overview of a lot of design patterns in <u>Wikipedia</u>. It I'll sum them up here and try to assign as much as possible pattern EE API's.

<u>Creational patterns</u>

<u>Abstract factory</u> (recognizeable by creational methods returning the another abstract/interface type)

javax.xml.parsers.DocumentBuilderFactory#newInstance()
javax.xml.transform.TransformerFactory#newInstance()
javax.xml.xpath.XPathFactory#newInstance()

<u>Builder</u> (recognizeable by creational methods returning the instance it java.lang.StringBuilder#append() (unsynchronized)

java.lang.StringBuffer#append() (synchronized)

<u>java.nio.ByteBuffer#put()</u> (also on <u>CharBuffer</u>, <u>ShortBufi</u> <u>DoubleBuffer</u>)

javax.swing.GroupLayout.Group#addComponent()

All implementations of java.lang.Appendable

Factory method (recognizeable by creational methods returning an i

<u>java.util.Calendar#getInstance()</u>

java.util.ResourceBundle#getBundle()

java.text.NumberFormat#getInstance()

java.nio.charset.Charset#forName()

java.net.URLStreamHandlerFactory#createURLStreamHan@ protocol)

<u>Prototype</u> (recognizeable by creational methods returning a *different* <u>java.lang.Object#clone()</u> (the class has to implement <u>java.</u>

<u>Singleton</u> (recognizeable by creational methods returning the same in java.lang.Runtime#getRuntime()
java.awt.Desktop#getDesktop()

Structural patterns

Adapter (recognizeable by creational methods taking an instance of dimplementation of own/another abstract/interface type which decorate:

<u>java.util.Arrays#asList()</u>

java.io.InputStreamReader(InputStream) (returns a Reade java.io.OutputStreamWriter(OutputStream) (returns a Wri javax.xml.bind.annotation.adapters.XmlAdapter#marsha

Bridge (recognizeable by creational methods taking an instance of diff implementation of own abstract/interface type which delegates/uses th None comes to mind yet. A fictive example would be new LinkedE returns an unmodifiable linked map which doesn't clone the items, java.util.Collections#newSetFromMap() and singletonX

<u>Composite</u> (recognizeable by behavioral methods taking an instance of java.awt.Container#add(Component) (practically all over Swingavax.faces.component.UIComponent#getChildren() (practically all over Swingavax.faces.component.UIComponent#getChildren() (practically all over Swingavax.faces.component.UIComponent#getChildren()

<u>Decorator</u> (recognizeable by creational methods taking an instance of behaviour)

All subclasses of java.io.InputStream, OutputStream, Reade

of same type.

<u>java.util.Collections</u>, the checkedXXX(), synchronizedX) javax.servlet.http.HttpServletRequestWrapper and HttpServletRequestWrapper and <a href="mailto:HttpServletRequestW

<u>Facade</u> (recognizeable by behavioral methods which internally uses in types)

<u>javax.faces.context.FacesContext</u>, it internally uses among <u>ViewHandler</u>, <u>NavigationHandler</u> and many more without that however overrideable by injection).

<u>javax.faces.context.ExternalContext</u>, which internally use httpServletResponse, etc.

Flyweight (recognizeable by creational methods returning a cached in java.lang.Integer#valueOf(int) (also on Boolean, Byte, Ct

Proxy (recognizeable by creational methods which returns an impleme delegates/uses a different implementation of given abstract/interface to

<u>java.lang.reflect.Proxy</u>

java.rmi.*, the whole API actually.

The Wikipedia example is IMHO a bit poor, lazy loading has actually complete

Behavioral patterns

<u>Chain of responsibility</u> (recognizeable by behavioral methods whicl implementation of same abstract/interface type in a queue)

java.util.logging.Logger#log()
javax.servlet.Filter#doFilter()

<u>Command</u> (recognizeable by behavioral methods in an abstract/interf of a *different* abstract/interface type which has been *encapsulated* by the second of the second of

All implementations of java.lang.Runnable

All implementations of javax.swing.Action

<u>Interpreter</u> (recognizeable by behavioral methods returning a *structu* note that parsing/formatting is not part of the pattern, determining the

java.util.Pattern

java.text.Normalizer

All subclasses of <u>java.text.Format</u>

All subclasses of javax.el.ELResolver

<u>Iterator</u> (recognizeable by behavioral methods sequentially returning in All implementations of <u>java.util.Iterator</u> (thus among others

All implementations of java.util.Enumeration

<u>Mediator</u> (recognizeable by behavioral methods taking an instance of command pattern) which delegates/uses the given instance)

<u>java.util.Timer</u> (all scheduleXXX() methods)

java.util.concurrent.Executor#execute()

<u>java.util.concurrent.ExecutorService</u> (the invokeXXX()

java.util.concurrent.ScheduledExecutorService (all sch
java.lang.reflect.Method#invoke()

Memento (recognizeable by behavioral methods which internally char java.util.Date (the setter methods do that, Date is internally re

All implementations of <u>java.io.Serializable</u>

All implementations of javax.faces.component.StateHolder

Observer (or Publish/Subscribe) (recognizeable by behavioral me abstract/interface type, depending on own state)

1498.

java.util.Observer/java.util.Observable (rarely used in real All implementations of java.util.EventListener (practically al javax.servlet.http.HttpSessionBindingListener javax.servlet.http.HttpSessionAttributeListener javax.faces.event.PhaseListener

State (recognizeable by behavioral methods which changes its behavior controlled externally)

<u>javax.faces.lifecycle.LifeCycle#execute()</u> (controlled bourrent phase (state) of JSF lifecycle)

<u>Strategy</u> (recognizeable by behavioral methods in an abstract/interface different abstract/interface type which has been passed-in as method a java.util.Comparator#compare(), executed by among others javax.servlet.http.HttpServlet, the service() and all do? HttpServletResponse and the implementor has to process them javax.servlet.Filter#doFilter()

<u>Template method</u> (recognizeable by behavioral methods which alreatype)

All non-abstract methods of <u>java.io.InputStream</u>, <u>java.io.Ou</u> <u>java.io.Writer</u>.

All non-abstract methods of java.util.AbstractList, javax.servlet.http.HttpServlet, all the doXXX() methods k
error to the response. You're free to implement none or any of them
Visitor (recognizeable by two different abstract/interface types which
abstract/interface type; the one actually calls the method of the other a
javax.lang.model.element.AnnotationValue and AnnotationValue and ElementVisitor
javax.lang.model.element.Element and TypeVisitor

	<u>edited</u>	
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