# Patterns

## Factory Method

## Code Snippet

Text

Description automatically generated

## Path

ganttproject\src\main\java\net\sourceforge\ganttproject\roles\RoleSetImpl.java

## Rationale

The method in question, RoleSet.createRole() is used to create a Role object and to process it as needed by the Role set and Manager so the Role constructor is never called outside of this structure.

## Proxy

## Code Snippet

Text

Description automatically generated

## Path

ganttproject\src\main\java\net\sourceforge\ganttproject\document\ReadOnlyProxyDocument.java

## Rationale

The purpose of this class is to protect the access to data stored in Documents tagged as read only. This is very clear, for example, in the Document.canWrite() method, which in this implementation it is not possible, since it returns an error Status object.

# Template Method

## Code Snippet

Graphical user interface, application

Description automatically generated

Text

Description automatically generated

Text

Description automatically generated

## Path

ganttproject\src\main\java\net\sourceforge\ganttproject\parser\AbstractTagHandler.java

## Rationale

This abstract method, TagHandler.onEndElement(), represents a behaviour all subclasses of AbstractTagHandler should have, opening up the possibility of adding subclass-specific actions. In this case, we can see two different extensions of said method.