

# Guided Authoring:

## Enforcing Editing Rules

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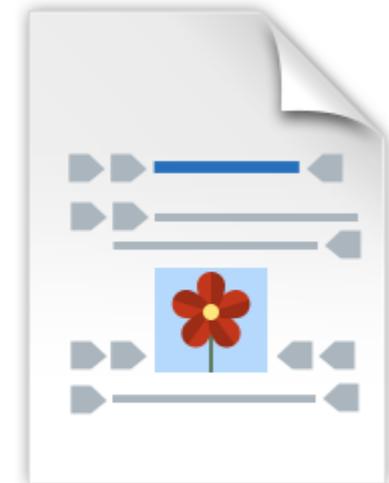
# Overview

- Guiding users to choose the correct markup in certain situations
- Imposing a set of business rules
- Identifying potential problems in generated output
- Solutions for fixing the signaled rule violations

# Enforcing Editing Rules

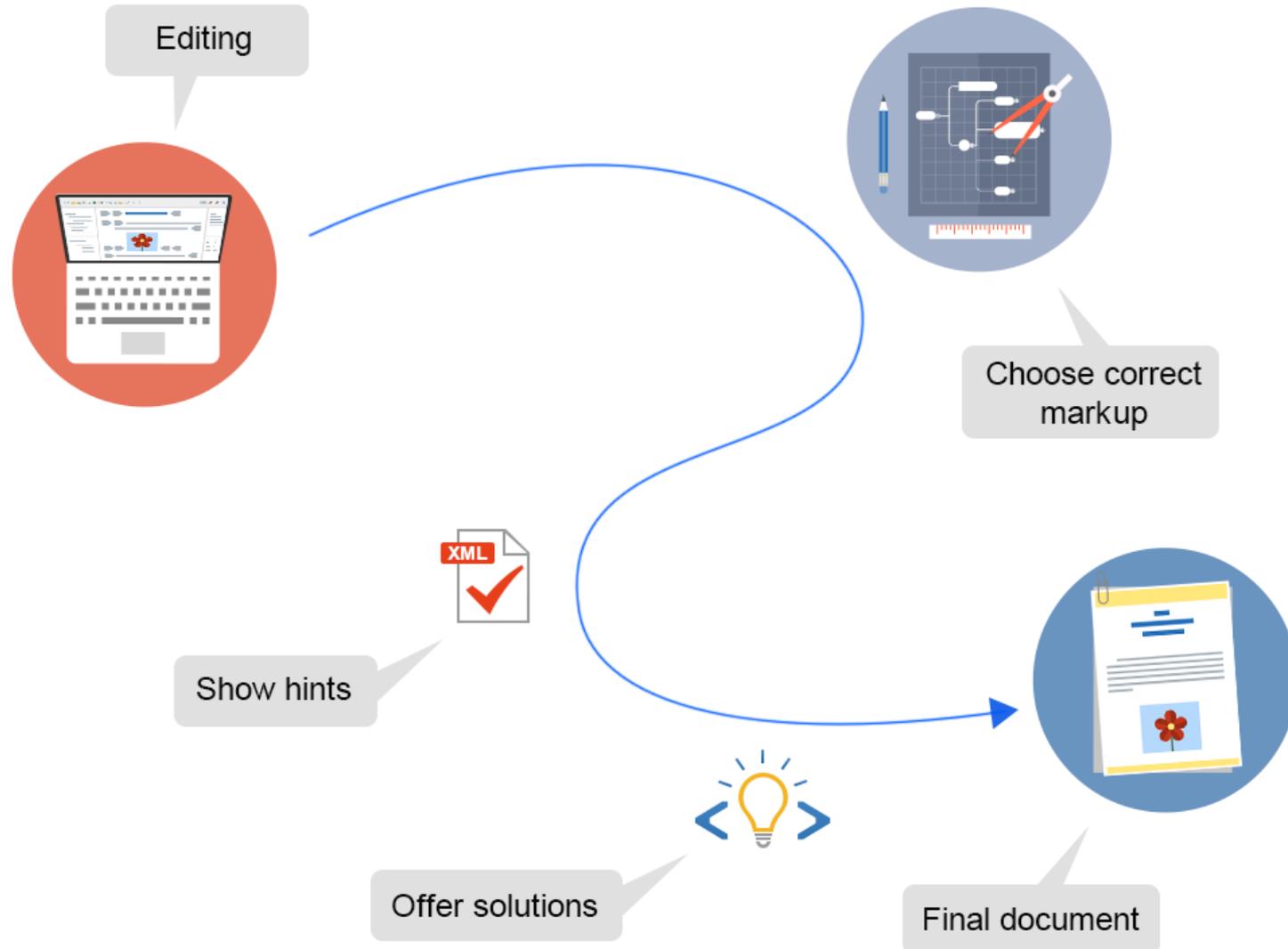


Editing



Final document

# Guiding the User



# Document Structure

topic

title

## Growing Flowers

title

body

section

title

### Introduction

title

With just a little bit of care and preparation, any flower garden can be a vibrantly colored environment. Flowers can be selected for specific blooming seasons, colors and shapes. Both annual and perennial flower gardens can be planted depending on climate and specific needs.

Read more about growing flowers here:

ul

- Flower garden;
- Raised-bed gardening;

ul

section

body

topic

# Document Structure Rules

- Impose a document structure using a schema language:
  - DTD
  - XML Schema
  - Relax NG
  - NVDL
- Oxygen supports all schema languages

# Content Completion and Annotations

The screenshot displays a DITA document structure with annotations for content completion and editing rules. The document is structured as follows:

- topic
- title **Growing Flowers** title
- body
  - section
    - title **Introduction** title
    - p With just a **little** bit of care and preparation, any flower garden can be a vibrantly colored one in the blooming seasons, and many gardens can be planned.
    - p Read more about [gardening](#).
    - ul
      - li Flower garden; li
      - li Raised-bed gardening; li

A context menu is open over the word "little", showing a list of elements to surround it with:

- abbreviated-form
- apiname
- B b**
- boolean
- cite
- cmdname

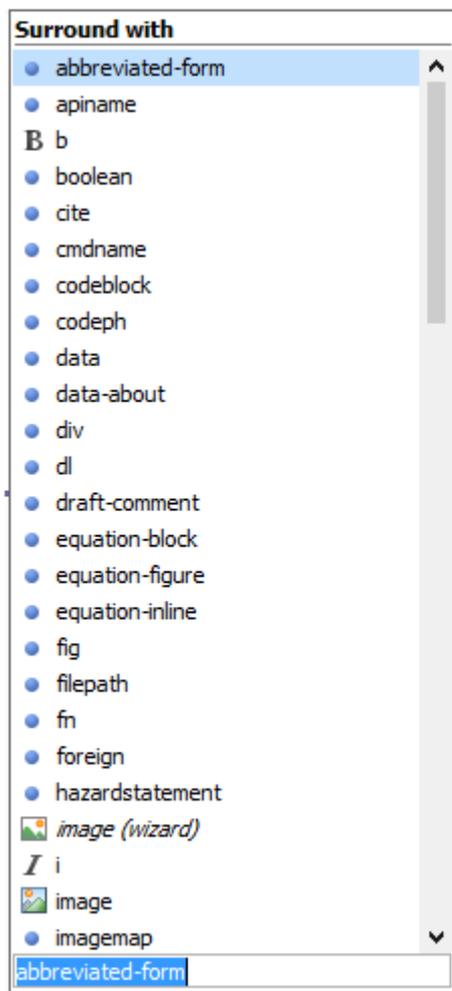
The selected element is `<b>`. A tooltip for `<b>` is displayed, providing information about the element:

`<b>`  
The `<b>` element is typically used to apply bold highlighting to the content of the element. This element is part of the highlighting domain. Use this element only when a more semantically appropriate element is not available. For example, for specific items such as GUI controls, use the `<uicontrol>` element.  
Category: Highlighting elements  
[DITA Style Guide](#)  
[DITA Specs](#)

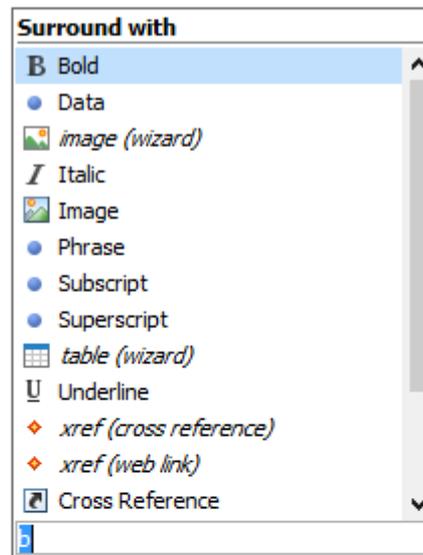
# Content Completion and Annotations

- ✓ Suggestions to insert valid markup
- ✓ Annotations to help you understand what the markup represents
- ✓ Links to the specification and style guide

# Limit the Number of Proposals



~90 proposals

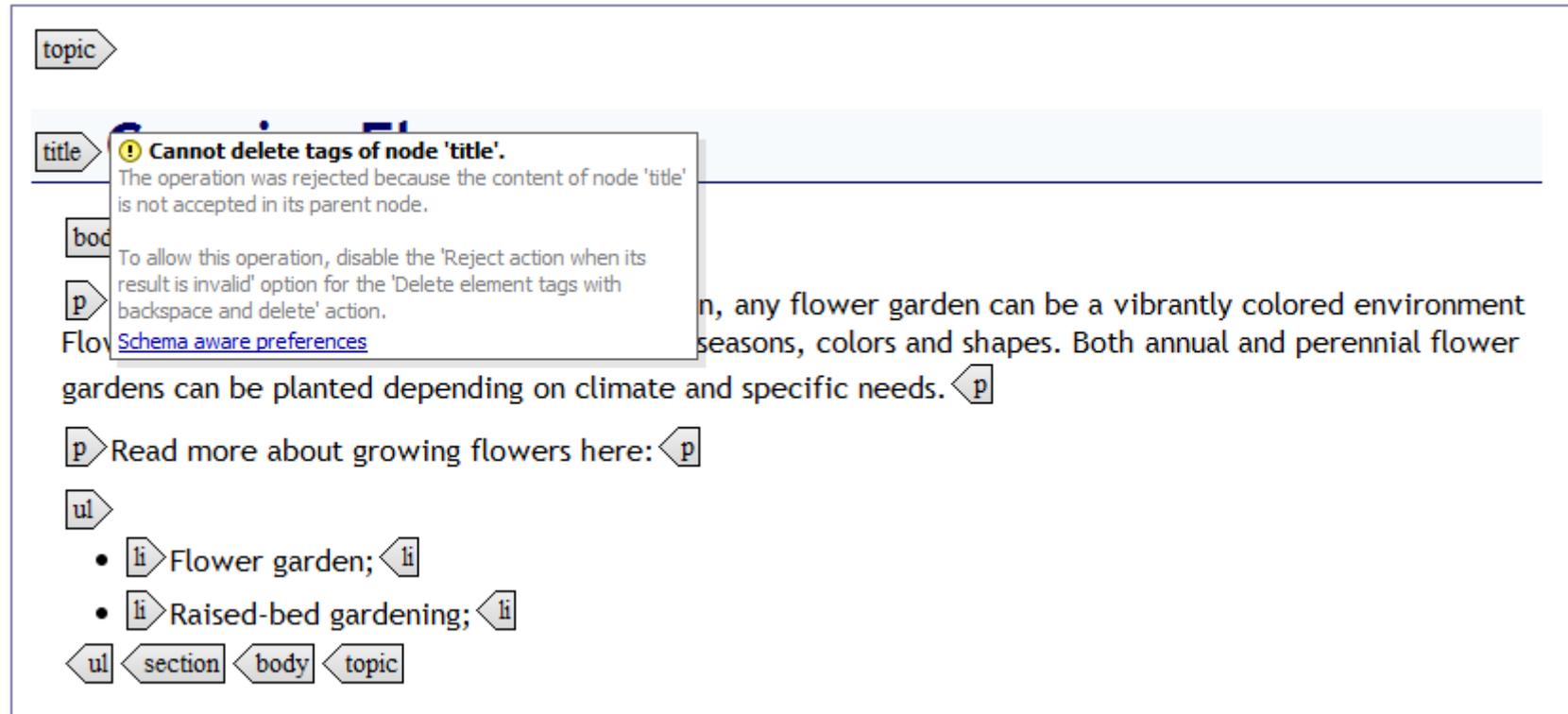


~15 proposals

# Limit the Number of Proposals

- ✓ Help the user to choose the right elements and attributes in particular contexts
- ✓ **Configure** the proposals for elements and attributes
- ✓ Lightweight DITA The logo for Lightweight DITA, featuring the text "<di**t**a>" where the letter 't' is blue and a small bird is perched on top of it.
- ✓ **Controlled Values & Markup Options** presented at oXygen Users Meetup

# Show Hints



The screenshot shows the Oxygen XML Editor interface with a hint box open over the 'title' element. The hint contains the following text:

**⚠ Cannot delete tags of node 'title'.**  
The operation was rejected because the content of node 'title' is not accepted in its parent node.

To allow this operation, disable the 'Reject action when its result is invalid' option for the 'Delete element tags with backspace and delete' action.  
[Schema aware preferences](#)

The background content of the editor is partially visible, showing a document structure with the following elements:

- topic
- title
- body
- Flow
- garden, any flower garden can be a vibrantly colored environment seasons, colors and shapes. Both annual and perennial flower gardens can be planted depending on climate and specific needs.
- Read more about growing flowers here:
- ul
  - li>Flower garden;
  - li>Raised-bed gardening;
- ul
- section
- body
- topic

# Show Hints

- ✓ Signal document structure problems
- ✓ Suggestions to correct the problems
- ✓ Preferences to change the schema-aware options

# Signal Problems and Offer Solutions

topic

title **Growing Flowers** title

body section title **Introduction** title

p With just a little bit of care and preparation, any flower garden can be a vibrantly colored environment. Flowers can be selected for specific blooming seasons, colors and shapes. Both annual and perennial flower gardens can be planted depending on climate and specific needs. p

p Read more about growing flowers here: p

boolean: boolean boolean

ul

- li Flowe
- li Raise

ul

p Most of th

section body

**Validation:**

value of attribute "state" is invalid; must be equal to "-dita-use-conref-target", "no" or "yes"

3 quick fix(es) available:

- Set 'state' attribute value to '-dita-use-conref-target'
- Set 'state' attribute value to 'no'
- Set 'state' attribute value to 'yes'

Press F2 for focus

free encyclopedia. p

# Signal Problems and Offer Solutions

- ✓ Actions to guide the user to fix the problems
- ✓ Multiple solutions for a problem
- ✓ Better understanding of the problem

# Business Rules

Rules for your documents that cannot be imposed by the schema

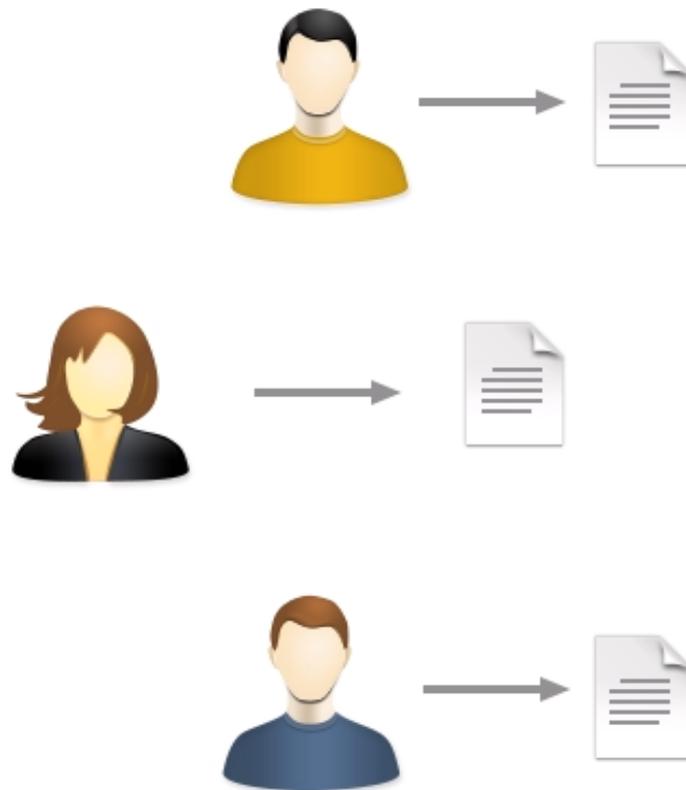


Examples:

- Titles should have content
- Consecutive lists are not allowed
- IDs must follow a certain pattern
- Consecutive notes of a same type
- Too many entries in a table row
- Sections must have IDs
- Titles are too long
- ...

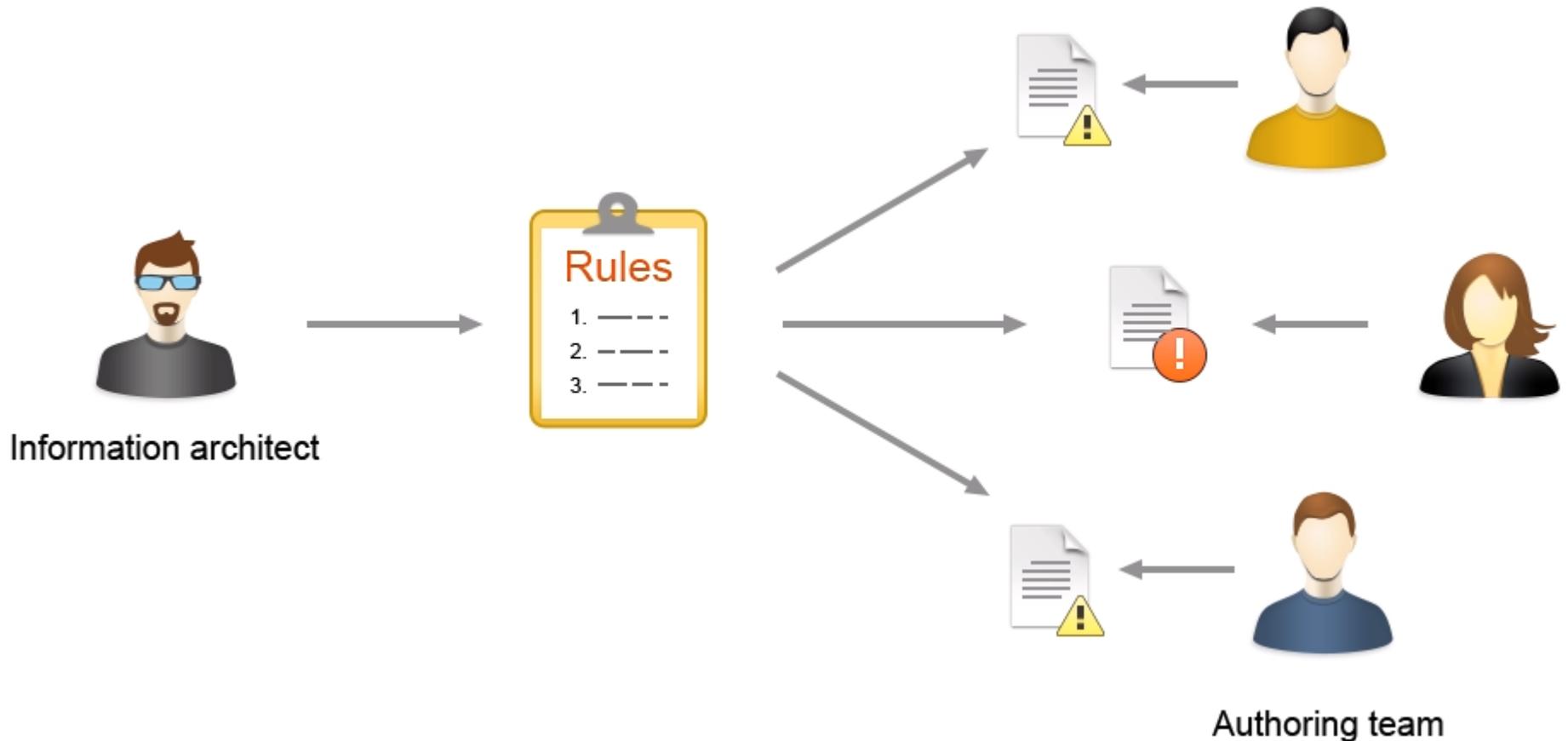
# Team Collaboration

All team members must follow the same rules



Authoring team

# Rules for All Documents



# Business Rule Types

Various types of business rules:

- Simple style rules
- Editing consistency rules
- Structure rules
- Output related rules

# Simple Style Rules

Styling is not allowed in titles

topic  
title **Growing** b **Flowers** b title

body section

title Introduction title

p With just a little bit of care and preparation, any flower garden can be a vibrantly colored environment. Flowers can be selected for specific blooming seasons, colors and shapes. Both annual and perennial flower gardens can be planted depending on climate and specific needs. p

p Read more about growing flowers here: p

ul

- li xref Flower garden xref li
- li xref Raised-bed gardening xref li
- li xref Compost xref ; li

Semicolon is not allowed at the end of a list item

ul

p Most of the information was taken from xref <http://www.wikipedia.org> xref, the free encyclopedia. p

section body topic

Text in the link and the value of the @href are the same

# Simple Style Rules

## Other simple style rules:

- No empty titles
- Titles should not exceed a certain number of characters
- Text is not allowed directly in the section
- The figure element should always be wrapped in a paragraph
- The definition list element should be wrapped in a paragraph to make the output look better
- Report possible cases where a codeblock contains XML that was not marked appropriately

# Editing Consistency Rules

Topic ID must be equal to file name

topic id="id\_kvj\_bwn\_fw"

title **Growing Flowers** title

body section title **Introduction** title

p With just a little bit of care and preparation, an **id\_kvj\_bwn\_fw** ment. Flowers can be selected for specific blooming seasons, colors and shapes. Both annual and perennial flower gardens can be planted depending on climate and specific needs. p section

All sections should have an @id

section title **Flowers by Season** title

p The various climatic changes that occur in cyclic pattern are termed as 'Seasons'. There are four general seasons occurring on Earth - Spring, Summer, Autumn and Winter. p

ul

- li Spring Time, the time of growth and renewal of new plant and animal life. Spring comes at different times in the North and South Hemispheres. Spring time in the Northern hemisphere is between March and May, while in the Southern hemisphere it is between September - November. li

Consecutive lists are not allowed

ul

ul

- li Summer is the time of hot and warm weather. Floral growth is the best in the summer season. The Northern hemisphere experiences summer during June, July, August, while in Southern hemisphere during December - February. li

ul section body topic

# Editing Consistency Rules

## Other editing consistency rules:

- IDs must follow a pattern
- The list should have an ID attribute
- Consecutive notes of a same type are not allowed
- For sections with examples in the title, use a specialized element
- We should avoid using 'oxygen' inside index term elements
- Remove "(Optional)" text from step elements and add the attribute @importance="optional" instead.

# Structure Rules

## Growing Flowers

### Care and Preparation

Flower	Type	
Chrysanthemum	perennial	well drained
Gardenia	perennial	
Gerbera	annual	sandy, well-drained
Iris		

Missing cells in a table

### Flowers by Season

- Spring Flowers
  - Iris - is a genus of between 200-300 species of flowering plants with showy flowers.
    - ◻ Irises are extensively grown as ornamental plants in home and botanical gardens.
    - ◻ Some rhizomes are traded as orris root and are used in perfume and medicine, though more common in ancient times than today.
  - Snowdrop - is the common name for a small genus of about 20 species in the family Amaryllidaceae.
- Summer Flowers
  - Gardenia - is a genus of about 250 species of flowering plants in the coffee family, Rubiaceae, native to the tropical and subtropical regions of Africa, southern Asia, Australasia and Oceania.

Too many nested lists

List contains only one item

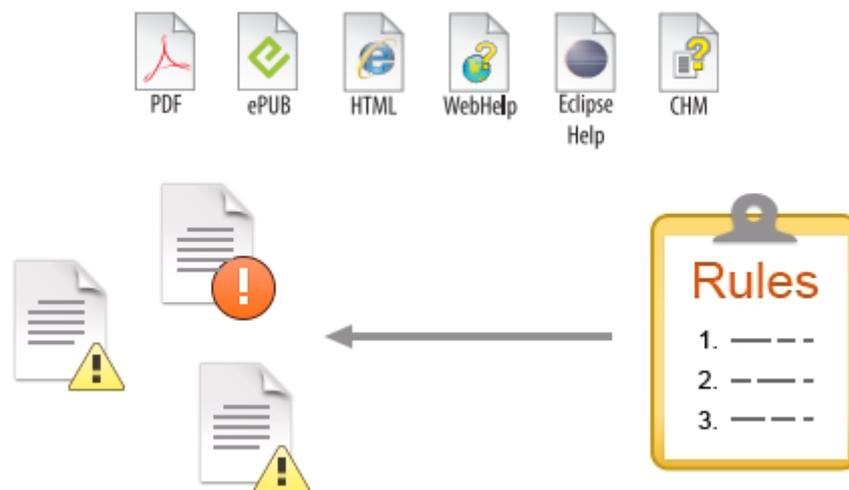
# Structure Rules

## Other structure rules:

- Tables with more entries than number of columns
- No image referenced in the fig element
- XML Schema used instead of DTD
- The figure should have a title
- Menucascade element should have more than one uicontrol element

# Output Related Rules

Impose rules to make sure your output will be generated correctly

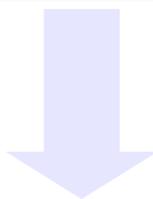


# Output Related Rules

## Sample

On Linux, the Java command should look like this:

```
▶java -Xmx600m -XX:MaxPermSize=256m "-Dcom.oxygenxml.editor.plugins.dir=$OXYGEN_HOME/plugins"␣  
  
▶java -Xmx600m -XX:MaxPermSize=256m\  
"-Dcom.oxygenxml.editor.plugins.dir=$AUTHOR_HOME/plugins"␣  
  
▶java -Xmx600m -XX:MaxPermSize=256m\  
"-Dcom.oxygenxml.editor.plugins.dir=$DEVELOPER_HOME/plugins"␣
```



## Sample

On Linux, the Java command should look like this:

```
java -Xmx600m -XX:MaxPermSize=256m "-Dcom.oxygenxml.editor.plugins.dir=  
$OXYGEN_HOME/plugins"  
  
java -Xmx600m -XX:MaxPermSize=256m\  
"-Dcom.oxygenxml.editor.plugins.dir=$AUTHOR_HOME/plugins"  
  
java -Xmx600m -XX:MaxPermSize=256m\  
"-Dcom.oxygenxml.editor.plugins.dir=$DEVELOPER_HOME/plugins"
```



PDF

# Output Related Rules

Other output required rules:

- Title contains quotes. This breaks the Java Help System.
- The indexterm element should be in a prolog
- The figure element should always be in a paragraph
- The definition list element should be wrapped in a paragraph to make the output look better
- Text is not allowed directly in the section

# Business Rules

- ✓ Create business rules for your documents

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- ✓ Add new rules when you encounter problems

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- Create business rules for your documents
- Impose rules for all of your documents
- Add new rules when you encounter problems
- ✓ Make sure that all of your team members follow the same rules

# Dynamic Information Model (DIM)

- An implementation of an intelligent style guide
- Describes and enforces rules
- [Schematron for Information Architects](#)  
presented by George Bina at XML Prague
- Open source project available on GitHub  
<https://github.com/oxygenxml/dim>

# What's Next?

- *Extend multilingual support for proposed fixes*
- *Allow business rules to report information (as opposed to errors or warnings)*
- *Determine fix proposals in more situations when an automatic fix can be offered*

# Business Rules Fix Proposals

Discover the technology behind the fix proposals for business rules by attending our next webinar:

Jul 14 **webinar**<sup>((( )))</sup>**Ar**

[Understanding and Developing Schematron Quick Fixes](#)

# Thank you!

## Questions?

<oxygen/> XML Editor

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