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Concept Topics

- Conceptual materials are read by users typically before starting a project or using a product or tool.
- Users also need task or reference topics to perform a task.
- They often include background information that users might need to understand before they work with a product or start a task.

The typical usage of a concept topic:

- Describe a system, product, or solution. (General description of a whole system)
- Outline a process.
- Introduce tools and technology.
- Explain features, components, characteristics, restrictions, or capabilities.
- Define **terms** in more detail than you would in a glossary.
- Describe benefits or help users to make choices **between options**.
- Provides background information and explains issues that users must know before working with a system or component or before starting a task.
- Describes any restrictions that limit the circumstances in which a tool can be used successfully.

For example, if your users are new to enterprise email systems and must install and configure such a system, you should provide conceptual information that describes archiving, stubbing, access control lists, records management, and other relevant concepts.

Some Guidelines to use when authoring a Concept Topic

- Describe one concept per topic -
  - For example, describing an airplane is probably too much for one topic. You should break this information into separate concept topics, each covering subjects such as *engine*, *wings*, *auto-pilot*, *GPS and etc*.
  - You can mention how these concepts are related in an overview topic, but separate the details of each concept into its own topic.
  - The advantage of separating your concepts is that users can find and read only what they need, and you can more easily reuse those concept topics elsewhere in your documentation.

Some Guidelines to use when authoring a Concept Topic

- Create a Concept Topic only if the idea cannot be covered more concisely elsewhere
  - Use a concept topic to cover an idea that requires something more than a ***glossary*** definition or a small mention in a task topic.
  - Be sure that you know how much your users are likely to understand before they use your product so that you don't describe what's ***obvious*** or leave out what's not obvious.
  - You often need to include concept topics to support your task topics for ***novice*** users to get the ***background*** information that they need.
  - Move conceptual information from task to concept topics so that extra and ***unwanted information is eliminated from the task topic***.

Some Guidelines to use when authoring a Concept Topic

- Separate Task Information from Conceptual Information -
  - If you include steps in a concept topic that walk users through a task, you're not writing a concept topic. (***Concept topic does not include steps***)
  - Move procedural, "how-to" information to a task topic.
  - Title your task topics consistently by using verb-based or "how-to" title and ***noun-based titles*** for concept topics. Users should not expect to find a procedure in a concept topic with a noun-based title.
  - You can use concept topics to ***describe processes***, such as how coffee beans are cultivated or how data is sent through fibreoptic cables. In these topics, you can use a numbered list to outline the process. Adding an effective image, such as a flow diagram or illustration, might be even better.

Some Guidelines to use when authoring a Concept Topic

- Structure of concept topics-
  - Write most conceptual information in paragraphs and unordered lists.
  - If the explanation is long and complex, use subheadings to break the concept into sections.
  - Tables are common elements in reference topics and generally not appropriate in concepts. Exceptions include tables that indicate when to use specific components or features.
  - Concepts are likely to be unfamiliar to users, so begin with a definition. Then, expand that definition into an explanation of the things that users must know about the subject. If you are describing a component, feature or tool, explain its benefits and note any limitations or co-requisites for using it.

Some Guidelines to use when authoring a Concept Topic

- Length of concept topics -
  - A concept topic must address only one idea.
  - In many cases it may make sense to divide a large subject into an overview topic that links to topics about subsidiary concepts such as tables, table spaces, and buffer pools.
  - Users often print concept topics to read them, so ensure that a topic includes all essential information about the subject that you are covering.
  - In general, keep concept topics to fewer than seven printed pages.

Elements for Concept Topic

<concept>

- This is the top-level element in a concept topic that answers the question "*What is?*"
- Concepts usually provide background information that users must know before they can work with a product.
- A concept can be an extended definition of a major and bigger abstraction such as a function or process.
- Concept can have a graphics

Elements for Concept Topic

<concept>

The model for a concept is as follows:

((title) then (titlealts) (optional) then (abstract or shortdesc) (optional) then (prolog) (optional) then (conbody) (optional) then (related-links) (optional) then (concept) (any number))

Elements for Concept Topic

<title>

- The title for a concept topic must be specific, meaningful noun or noun phrase.

1. Use the plural forms of nouns unless the subject makes sense only in the singular.

<title> City Bikes </title>

<title> City Bike </title>

Elements for Concept Topic

<title>

- The title for a concept topic must be specific, meaningful noun or noun phrase.

1. Use the plural forms of nouns unless the subject makes sense only in the singular.
2. Place important words at the beginning of a heading to focus attention on those words.

<title> Mobile app installation overview </title>

<title> Overview of installation a mobile app </title>

Elements for Concept Topic

<title>

- The title for a concept topic must be specific, meaningful noun or noun phrase.

1. Use the plural forms of nouns unless the subject makes sense only in the singular.
2. Place important words at the beginning of a heading to focus attention on those words.
3. Do not use a gerund for a concept heading because gerunds indicate tasks.

<title> Features of online and offline environments</title>

<title> Working in online and offline environments</title>

Elements for Concept Topic

<title>

- The title for a concept topic must be specific, meaningful noun or noun phrase.

1. Use the plural forms of nouns unless the subject makes sense only in the singular.
2. Place important words at the beginning of a heading to focus attention on those words.
3. Do not use a gerund for a concept heading because gerunds indicate tasks.
4. Make the topic heading specific enough so that a user who sees it in a list of search results knows what the topic contains..

<title> Windows Operating Systems </title>

<title> Operating system </title>

Elements for Concept Topic

<shortdesc>

- This element occurs between the topic title and the topic body.
- This element is used to represent the purpose or theme of the topic.
  - It is used to introduce the concept and to provide an answer to the question “What is this?”
  - If the concept is unfamiliar, you can start with a brief definition.
  - Describing the benefits of the tool, solution, part, or component.
  - Outlining a process.
  - The short description paragraph should contain the main point of the concept topic.
  - Do not simply repeat the title.
  - Do not use sentence fragments. Use complete sentences.
  - Avoid starting short descriptions with phrases such as "This topic describes . . . ." or "This topic is about . . . ."

Elements for Concept Topic

<shortdesc>

```
<concept id="concept">
   <title>Self driving cars</title>
   <shortdesc>
      Self driving cars that is also known as
      driverless car is a
      vehicle that is capable of
      sensing its environment and moving
      safely with little or no human input.
   </shortdesc>
</concept>
```

Elements for Concept Topic

<conbody>

- The <conbody> element is the main body-level element for a concept. Like the <body> element of a general <topic>, <conbody> allows paragraphs, lists, and other elements as well as sections and examples.

Elements within Conbody

<section>:

- <section> helps users navigate and scan your content by organizing content into logical groups and providing headings, or section titles.
- Section has an optional <title> element, but it is better to add titles in sections, which look like secondary headings in the output.

```
<section>
    <title>technical Challenges</title>
    <p>
        There are different systems that help the
        self-driving car control the car.
        There are systems that currently need
        improvement such as car navigation
        systems, location systems.
    </p>
</section>
```

Elements within Conbody

<conbodydiv>:

- The <conbodydiv> provides an informal container for content that may be grouped within a concept.
- There are no additional semantics attached to the conbodydiv element; it is purely a grouping element provided to help organize content.

```
<conbody>
    <conbodydiv>
      <section>
        <title>technical Challenges</title>
        <p>
          There are different systems that help the self-driving car control
           the car.
          There are systems that currenlty need improvement such as car
           navigation systems, location systems.
        </p>
      </section>
      <section>
        <title>Nature of the digital technology</title>
        <p>
          Autonomous vehicles, as digital technology,
          have certain characteristics that distinguish
          them from other types of technologies and
          vehicles. Due to these characteristics,
          autonomous vehicles are able to be more
          transformative and agile to possible changes..
        </p>
      </section>
    </conbodydiv>
</conbody>
```

Elements within Conbody

<sl>:

- The <sl> element contains a simple list of items of short, phrase-like content, such as a list of materials in a kit or package.
- Each bullet point is represented in a <sli>.
- On output, the list should have no bullets, on the assumption that each item is short enough to fit on one line, and needs no additional differentiation from its neighbours.

```
<section>
    <title>Parts</title>
    <p>Different sensors in Self driving cars</p>
    <sl>
        <sli>radar</sli>
        <sli>lidar</sli>
        <sli>sonar</sli>
        <sli>GPS</sli>
    </sl>
</section>
```

Elements within Conbody

:

- In an unordered list <ul>, the order of the list items is not significant.
- List items are typically styled on output with a "bullet" character, depending on nesting level.
- Each item in the list is represented in an<li>.

```
<section>
        <title>Parts</title>
         <p>
Different sensors in Self driving cars </p>
        <ul>
            <li>one</li>
            <li>two</li>
            <li>three</li>
        </ul>
</section>
```

Elements within Conbody

<dl>:

- A definition list <dl> is a list of terms and corresponding definitions.
- The term <dt> is usually flush left.
- The description or definition <dd> is usually either indented and on the next line, or on the same line to the right of the term.
- You can also provide an optional heading for the terms and definitions, using the <dlhead> element, which contains header elements for those columns.
- The default formatting for the <dlhead> generally looks like a table with a heading row, but this is also up to the rendering engine.

```
<conbody>
    <dl>
      <dlhead>
        <dthd>Car sensors</dthd>
        <ddhd>Some details</ddhd>
      </dlhead>
      <dlentry>
        <dt>Radar</dt>
        <dt> Secon radar </dt>
        <dd>Radar is a detection system that uses radio waves</dd>
      </dlentry>
      <dlentry>
        <dt>GPS</dt>
        <dd> GPS, is a satellite-based radio navigation system </dd>
      </dlentry>

    </dl>
</conbody>
```

Elements within Conbody

: An ordered list <ol> is a list of items sorted by sequence or order of importance.

- Use Ordered Lists to Describe Workflows, Rankings, or High-Level Tasks That Aren't Specific Steps –
- You can use ordered lists to describe processes or other information that entail a chronological progression.
- Ensure that an ordered list isn't a user task disguised as a process. If you want users to follow a procedure, write a task topic.

```
<section>
    <title>Car makers</title>
    <p>
      Companies that produce self-driving car and their
      total distance travelled
    </p>
    <ol>
      <li>BMW:  638 miles</li>
      <li>Ford:  590 miles</li>
      <li>Tesla:  550 miles</li>
      <li>Volkswagen:  9 miles</li>
    </ol>
  </section>
```

Elements within Conbody

<parml>:

- The parameter list <parml> element contains a list of terms and definitions that describes the parameters in an application programming interface.
- This is a special kind of definition list that is designed for documenting programming parameters.

```
<parml>
        <plentry>
            <pt>variable one</pt>
            <pd>
is the first variable declaration passed to
methods in class x
            </pd>
        </plentry>
        <plentry>
            <pt>variable two</pt>
            <pd>
is the second variable declaration passed
to methods in class y
            </pd>
        </plentry>
    </parml>
```

Elements within Conbody

<msgblock>:

- The message block <msgblock> element contains a multi-line message or set of messages.
- The message block can contain multiple message numbers and message descriptions, each enclosed in a <msgnum> and <msgph> element.
- It can also contain the message content directly.
- Line breaks and spaces are preserved when the element is rendered.

```
<section>

    <msgblock>
      <msgnum>404</msgnum>
      <msgph>
    Page can not be found
    </msgph>
      <msgnum>403</msgnum>
      <msgph>
    Access denied
    </msgph>
     </msgblock>
</section>
```

Elements within Conbody

<term>:

- Use the <term> element to mark up new terms that are introduced and defined in concept topics.
- Use the <term> element only for the first or most prominent occurrence of the term.
- By default, content in the <term> element is italicized in the output.

```
<section>
 <title>Testing</title>
 <term>Apple </term> is currently testing self-driving cars, and has increased its fleet of test vehicles.
 </section>
```

Elements within Conbody

<q> and <lq>:

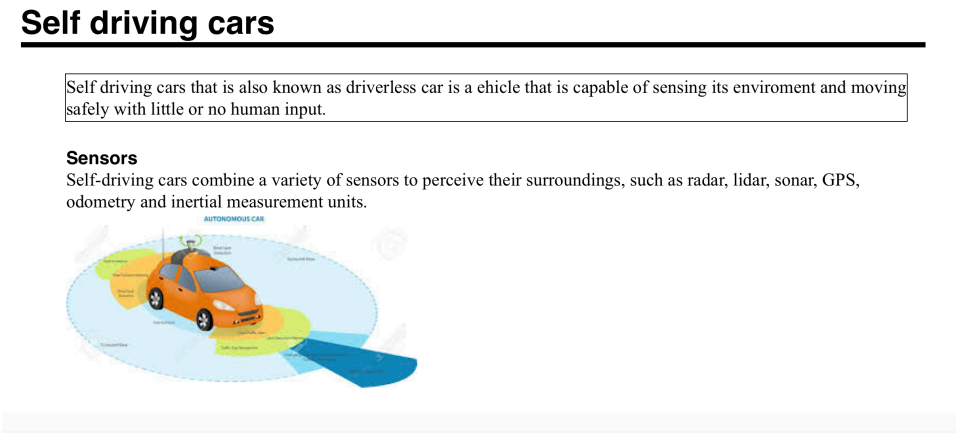
- The long quote <lq> element indicates content quoted from another source.
- Use the quote element <q> for short, inline quotations, and long quote <lq> for quotations that are too long for inline use, following normal guidelines for quoting other sources.

```
<section>
  <title>Testing</title>
    The testing of vehicles with varying degrees
    of automation can be carried out either
    physically, in a <q>closed environment</q>
    or, where permitted, on public roads
    <lq>(typically requiring a license or permit,
    or adhering to a specific set of operating
    principles),</lq>
    or in a virtual environment, i.e. using
    computer simulations.
  </section>
```

Elements within Conbody

<image>

- Include artwork or images in a DITA topic by using the <image> element.




```
<section>
 <title>Sensors</title>
    Self-driving cars combine a variety of sensors
    to perceive their surroundings,
    such as radar, lidar, sonar, GPS,
    odometry and inertial measurement units.
    <fig>
    <image href="car.jpg"></image>
    </fig>
 </section>
```


<dita>