**Actors Prompt:**

An engineer is working on a set of user stories enclosed between triple back ticks.

``` As a faculty member, I want to maintain versioning of Extension brochures and FAQs, so that only the most current are used/adapted by other CCE Educators in their work.

As a researcher, I want to discover items in the repository through the library's discovery system and Google, so that I can facilitate my easy use of the content.

As a researcher, I want to see descriptive metadata for the item whether I come to the item through the repository or directly to the PDF, so that I can correctly identify the source of the content.

As a researcher, I want to contact the author of a work that interests me, so that I can learn more about my research.

As a researcher, I want to receive updates when new works are published in a given collection or by a given author, so that I can discover more of their work.

As a patron, I want to search for report or dataset with keywords or a partial or complete title to locate needed report or dataset.```

He created an initial goal model with the intentional elements enclosed between triple quotes:

‘’’

- 'Actors':

-patron

-researcher

- 'Goals':

-search operations conducted

-see operations conducted

-contact operations conducted

-see descriptive metadata

-contact the author

-needed report searched

'''

The created model is missing many intentional elements. Let us refine the goal model step by step. First, can you list all 'Actors' for the user stories enclosed between triple back ticks. An initial set of actors are added in the enclosed between triple quotes. You must also identify any missing and implicit actors. It is critical that you answer only as a bulleted list and do not include any explanation.

* patron
* researcher
* faculty member

**Goals**

The initial goal model does not contain all the stakeholder’s objectives or goals that are conveyed in the user stories enclosed between triple back ticks. Identify any goals explicitly mentioned in the user stories enclosed between triple back ticks as well as any implicit goals. It is critical that you answer only as a bulleted list and do not include any explanation.

* maintain versioning of Extension brochures and FAQs
* discover items in the repository through the library's discovery system and Google
* see descriptive metadata for the item
* contact the author of a work
* receive updates when new works are published in a given collection or by a given author
* search for report or dataset with keywords or a partial or complete title to locate needed report or dataset

**Tasks for Goals**

Please provide a detailed breakdown of tasks for each of the following goals, created in the previous response. It is critical that you answer only as a bulleted list that adheres to the following format.

<a goal>: <a hyphenated list of tasks to achieve the goal>

Do not include any explanation.

* maintain versioning of Extension brochures and FAQs:
  + Implement version control system
  + Regularly update brochures and FAQs
  + Provide access to the most current versions
* discover items in the repository through the library's discovery system and Google:
  + Integrate repository with library's discovery system and Google search
  + Ensure metadata is indexed for easy discovery
* see descriptive metadata for the item:
  + Display metadata alongside the item
  + Ensure metadata is accurate and informative
* contact the author of a work:
  + Provide a contact form or direct messaging system
  + Notify the author of the inquiry
* receive updates when new works are published in a given collection or by a given author:
  + Set up subscription system for updates
  + Notify users of new publications
* search for report or dataset with keywords or a partial or complete title to locate needed report or dataset:
  + Implement search functionality with keyword and title filters
  + Ensure search results are relevant and accurate

**Soft Goals**

Next, there are no soft goals in the initial goal model. Please suggest soft goals. Note you must identify any soft goals explicitly mentioned in the user stories enclosed between triple back ticks as well as any implicit soft goals. It is critical that you answer only as a bulleted list and do not include any explanation.

* Ensure version control accuracy and reliability
* Enhance content discoverability and accessibility
* Improve communication and collaboration between researchers
* Enhance user experience and satisfaction
* Optimize search functionality for efficiency and effectiveness

**Tasks for Soft Goals**

Next, the initial goal model misses different tasks that can be undertaken to achieve goals and soft goals.

Please provide a detailed breakdown of tasks for each soft goal created in the previous response. You can generate a variable number of tasks for soft goals. It is critical that you answer only as a bulleted list that adheres to the following format.

<a soft goal>: <list of tasks to achieve the soft goal>

Do not include any explanation.

* Ensure version control accuracy and reliability:
  + Implement automated version control system
  + Conduct regular audits of versioning process
  + Establish clear versioning guidelines and protocols
  + Provide training on version control best practices
* Enhance content discoverability and accessibility:
  + Implement advanced search algorithms
  + Enhance metadata tagging for improved search results
  + Conduct user testing for discoverability feedback
  + Optimize user interface for easy navigation
* Improve communication and collaboration between researchers:
  + Implement a messaging system for direct author contact
  + Set up author notification system for new works
  + Facilitate author-researcher communication channels
* Enhance user experience and satisfaction:
  + Gather user feedback for continuous improvement
  + Conduct usability testing for user interface enhancements
  + Implement personalized user preferences features
* Optimize search functionality for efficiency and effectiveness:
  + Enhance search algorithms for faster results
  + Implement filters for refined search options
  + Conduct regular testing and updates for search performance

**Contribution Links**

The Contributionrelationship statement describes how softgoals, task, believes, or links contribute to the satisficing of another intentional element. The five categories of Contribution Links are enclosed between triple back-ticks symbols.

``` MAKE : The contribution of the contributing element is positive and sufficient. BREAK : The contribution of the contributing element is negative and sufficient. HELP : The contribution of the contributing element is positive but not sufficient. HURT : The contribution of the contributing element is negative but not sufficient. EQUAL : There is equal contribution in both directions. ```

Please suggest different contribution links to link all the intentional elements such as, goals, soft goals, Tasks, and Resources that you identified. Note you must identify any contributions links that explicitly mentioned in the user stories enclosed between triple back ticks as well as any hidden contribution links. It is critical that you answer only as a bulleted list that adheres to the following format.

<Contribution Link Category>::<Source intentional elements> : <Destination intentional elements>

* HELP: maintain versioning of Extension brochures and FAQs : Ensure version control accuracy and reliability
* HELP: discover items in the repository through the library's discovery system and Google : Enhance content discoverability and accessibility
* MAKE: see descriptive metadata for the item : Enhance user experience and satisfaction
* HELP: contact the author of a work : Improve communication and collaboration between researchers
* MAKE: receive updates when new works are published in a given collection or by a given author : Enhance user experience and satisfaction
* HELP: search for report or dataset with keywords or a partial or complete title to locate needed report or dataset : Optimize search functionality for efficiency and effectiveness

**Dependencies Links**

The Dependency statement of GRL describes an intentional relationship between two actors, i.e., one actor (the Depender) depends on another actor (the Dependee) on something (the Dependum). Noite that the dependum is optional.

Please suggest different Dependency links to link all the intentional elements such as, goals, soft goals, Tasks, and Resources that you identified. Note you must identify any Dependency links that explicitly mentioned in the user stories enclosed between triple back ticks as well as any hidden Dependency links. It is critical that you answer only as a bulleted list that adheres to the following format.

<Depender> DEPENDES-ON <Dependee> FOR <Dependum>

* maintain versioning of Extension brochures and FAQs DEPENDS-ON patron FOR access to the most current versions
* discover items in the repository through the library's discovery system and Google DEPENDS-ON researcher FOR facilitation of easy use of the content
* see descriptive metadata for the item DEPENDS-ON researcher FOR correct identification of the source of the content
* contact the author of a work DEPENDS-ON researcher FOR learning more about the research
* receive updates when new works are published in a given collection or by a given author DEPENDS-ON researcher FOR discovery of more works
* search for report or dataset with keywords or a partial or complete title to locate needed report or dataset DEPENDS-ON patron FOR locating needed report or dataset

**Resources**

**Not used because Dependum identified in the previous prompt are the resources.**

A resource is an (physical or informational) entity, with which the main concern is whether it is available. The initial goal model with the intentional elements enclosed between triple quotes does not have resources. Identify resources that are explicitly mentioned in the user stories enclosed between triple back ticks as well as any implicit resources. It is critical that you answer only as a bulleted list and do not include any explanation.



**Decomposition Links**

DECOMPOSITON statement provides the ability to define what other elements need to be achieved or available in order for a task to perform. Note that only Task and Goal can be decomposed into goal, task, resource, and softgoal. A Task Decomposition Structure shows the essential components of a task, which include subtasks that must be performed, subgoals that must be achieved, resources that must be accessible, and softgoals that must be satisfied. Similarly, a Goal Decomposition Structure connects a goal with its sub-goals directly, which is a short hand form of one Goal Means\_Ends Structure and the related Task Decomposition Structure.  The three categories of Decomposition Links are enclosed between triple back-tick symbols.

``` AND DECOMPOSITON: The relations between the dependent elements are “AND”. Each of the sub-components are necessary. OR DECOMPOSITON : The relations between the contributing elements are “OR”. Any of the sub-components is sufficient. XOR DECOMPOSITON: The relations between the contributing elements are “XOR”. Either of the sub-components are necessary, but not both. ```

Please suggest different Decomposition links to link all the intentional elements such as, goals, soft goals, Tasks, and Resources that you identified. Note you must identify any Decomposition links that explicitly mentioned in the user stories enclosed between triple back ticks as well as any hidden Decomposition links. It is critical that you answer only as a bulleted list that adheres to the following format.

< Decomposition Type>::<Source intentional elements> : <Destination intentional elements>

* AND DECOMPOSITION::maintain versioning of Extension brochures and FAQs : Implement version control system, Regularly update brochures and FAQs, Provide access to the most current versions
* AND DECOMPOSITION::discover items in the repository through the library's discovery system and Google : Integrate repository with library's discovery system and Google search, Ensure metadata is indexed for easy discovery
* AND DECOMPOSITION::see descriptive metadata for the item : Display metadata alongside the item, Ensure metadata is accurate and informative
* AND DECOMPOSITION::contact the author of a work : Provide a contact form or direct messaging system, Notify the author of the inquiry
* AND DECOMPOSITION::receive updates when new works are published in a given collection or by a given author : Set up subscription system for updates, Notify users of new publications
* AND DECOMPOSITION::search for report or dataset with keywords or a partial or complete title to locate needed report or dataset : Implement search functionality with keyword and title filters, Ensure search results are relevant and accurate

**Generate XML using Fewshot examples:**

Please create an XML that includes all the outputs that you generated so far. An example of the right output is shown between triple back ticks.

```

<?xml version='1.0' encoding='ISO-8859-1'?>

<grl-catalog catalog-name="URNspec" description="" author="vaish">

<element-def>

<intentional-element id="72" name="Car objects" description="" type="Ressource" decompositiontype="And"/>

<intentional-element id="80" name="Easy to use" description="" type="Softgoal" decompositiontype="And"/>

<intentional-element id="82" name="Realistic simulation" description="" type="Softgoal" decompositiontype="And"/>

<intentional-element id="84" name="Simple design" description="" type="Softgoal" decompositiontype="And"/>

<intentional-element id="88" name="Generate cars" description="" type="Goal" decompositiontype="And"/>

<intentional-element id="96" name="Create new cars" description="" type="Task" decompositiontype="And"/>

<intentional-element id="98" name="Keep same cars" description="" type="Task" decompositiontype="And"/>

</element-def>

<link-def>

<contribution name="Contribution105" description="" srcid="96" destid="82" contributiontype="Unknown" quantitativeContribution="0" correlation="false"/>

<contribution name="Contribution106" description="" srcid="96" destid="84" contributiontype="Unknown" quantitativeContribution="0" correlation="false"/>

<decomposition name="Decomposition111" description="" srcid="96" destid="88"/>

<decomposition name="Decomposition114" description="" srcid="98" destid="88"/>

<dependency name="Dependency116" description="" dependerid="88" dependeeid="72"/>

</link-def>

<actor-def>

<actor id="11" name="Traffic Simulator" description=""/>

</actor-def>

<actor-IE-link-def>

<actorContIE actor="11" ie="72"/>

<actorContIE actor="11" ie="80"/>

<actorContIE actor="11" ie="82"/>

<actorContIE actor="11" ie="84"/>

<actorContIE actor="11" ie="88"/>

<actorContIE actor="11" ie="96"/>

<actorContIE actor="11" ie="98"/>

</actor-IE-link-def>

</grl-catalog>

```

The generated XML must adhere to the below list of criteria.

• No duplicate values for 'name' attribute in XML

• No duplicate values for 'id' attribute? in XML

• No empty string as a value for 'name' attribute

• If you include Date attributes 'modified' and 'created', the values of 'modified' attribute must be greater than the value of 'created' attribute

• The XML must not have an empty grl-catalog element

• Do not add elements outside the section named 'grl-catalog'

• In the XML, element named 'intentional-element' must have non-empty values for following attributes- name, id, type

• XML must have section 'actor-def' consisting of actors

• In the XML, each actor element has an 'id' attribute. Do not use the value of 'id' attribute of an actor element as the value for 'srcid' or 'destid' attributes within the section named 'link-def'

• XML must have a section with title 'actor-IE-link-def'

• Within the section with name 'actor-IE-link-def', no two elements with different value for 'actor' attribute, have same value for 'ie' attribute"

• For an element named 'intentional-element', the value for the attribute 'type' of the tag must be one of the following values - Task, Goal, Softgoal, Resource, Belief?"

• For an element named 'intentional-element', the value for the attribute 'decompositiontype' of the tag must be one of the following values - AND, OR, XOR

• For an element with name 'contribution', the value for the attribute 'contributiontype' of the tag must be one of the following values- Make, Help, Break, Hurt

• For an element with name 'contribution', the values for attributes- srcid and destid, in each tag must be different

• Each element with name 'contribution', must have attribute 'srcid' and its value must not be empty string

• Each element with name 'contribution' must have attribute 'destid' and its value must not be empty string

• Each element with name 'decomposition' must have attribute 'srcid' and its value must not be empty string

• Each element with name 'decomposition' must have attribute 'destid' and its value must not be empty string

• Each element with name 'decomposition', must have different the values for attributes- 'srcid' and destid'