**Actors Prompt:**

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

``` As a repository manager, I want to know all the collections for which I have curatorial responsibility.

As a repository manager, I want to compose collections.

As a repository manager, I want to limit the collection to the items sharing the same provenance

As a repository manager, I want to limit the collection to represent a part of a collection have a singular provenance,

As a repository manager, I want to assembly a collection from other collections and objects.

As a repository manager, I want to say one collection is related to another collection. ```

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

‘’’

- 'Actors':

-repository manager

- 'Goals':

-know operations conducted

-limit operations conducted

-assembly operations conducted

-say operations conducted

-know all the collections

-limit the collection

-say one collection

-assembly a collection

'''

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.

repository manager

curator

**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.

* know all the collections
* compose collections
* limit collection to items sharing the same provenance
* limit collection to represent a part of a collection with a singular provenance
* assembly a collection from other collections and objects
* say one collection is related to another collection

**IE Links for Goals**

Connect the goals from the previous step to the actors. It is critical that you answer only as a bulleted list that adheres to the following format.

<a actor>: <a hyphenated list of associated goals>

Do not include any explanation.

**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.

* know all the collections:
  + Identify the collections under curatorial responsibility
* compose collections:
  + Gather items to form a collection
* limit collection to items sharing the same provenance:
  + Filter collections based on provenance
* limit collection to represent a part of a collection with a singular provenance:
  + Select a subset of a collection with a single provenance
* assembly a collection from other collections and objects:
  + Merge existing collections and individual objects to form a new collection
* say one collection is related to another collection:
  + Establish a relationship between two collections

**IE Links for Tasks of Goals**

Connect the tasks of goals from the previous step to the actors. It is critical that you answer only as a bulleted list that adheres to the following format.

<a actor>: <a hyphenated list of associated tasks of goals>

Do not include any explanation.

**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 efficient management of collections
* Maintain data integrity in collections
* Enhance the usability of collection management system
* Improve collaboration among repository managers
* Optimize the organization of collections

**IE Links for Soft Goals**

Connect the soft goals created in the previous step to the actors. It is critical that you answer only as a bulleted list that adheres to the following format.

<a actor>: <a hyphenated list of associated soft goals>

Do not include any explanation.

**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 efficient management of collections:
  + Implement advanced search functionality
  + Develop automated metadata tagging system
  + Provide user-friendly interfaces for collection navigation
* Maintain data integrity in collections:
  + Implement data validation checks
  + Regular data backups and recovery processes
  + Ensure secure access controls for data modification
* Enhance the usability of collection management system:
  + Conduct user experience testing and feedback collection
  + Implement personalized user settings and preferences
  + Provide intuitive and responsive design for different devices
* Improve collaboration among repository managers:
  + Integrate real-time collaboration features
  + Establish communication channels within the system
  + Enable shared access and editing capabilities for collections
* Optimize the organization of collections:
  + Implement automated categorization and tagging of items
  + Provide customizable sorting and filtering options
  + Develop recommendation systems for related collections

**IE Links for Tasks of Soft Goals**

Connect the tasks of soft goals from the previous step to the actors. It is critical that you answer only as a bulleted list that adheres to the following format.

<a actor>: <a hyphenated list of associated tasks of soft goals>

Do not include any explanation.

**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>

* MAKE::know all the collections : Ensure efficient management of collections
* HELP::Maintain data integrity in collections : Ensure efficient management of collections
* HELP::Ensure efficient management of collections : Enhance the usability of collection management system
* MAKE::Enhance the usability of collection management system : Improve collaboration among repository managers
* HURT::Improve collaboration among repository managers : Optimize the organization of collections

**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>

* Enhance the usability of collection management system DEPENDS-ON Optimize the organization of collections FOR User-friendly interfaces
* Ensure efficient management of collections DEPENDS-ON Maintain data integrity in collections FOR Regular data backups
* Improve collaboration among repository managers DEPENDS-ON Optimize the organization of collections FOR Shared access capabilities
* Optimize the organization of collections DEPENDS-ON Ensure efficient management of collections FOR Automated categorization
* Maintain data integrity in collections DEPENDS-ON Ensure efficient management of collections

**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::know all the collections : Identify the collections under curatorial responsibility, Gather items to form a collection
* AND DECOMPOSITION::compose collections : Gather items to form a collection
* AND DECOMPOSITION::limit collection to items sharing the same provenance : Filter collections based on provenance
* AND DECOMPOSITION::limit collection to represent a part of a collection with a singular provenance : Select a subset of a collection with a single provenance
* AND DECOMPOSITION::assembly a collection from other collections and objects : Merge existing collections and individual objects to form a new collection
* AND DECOMPOSITION::say one collection is related to another collection : Establish a relationship between two collections

**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'