**Actors Prompt:**

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

``` As a researcher, I want to be able to search across photo collection images, so that I can prepare presentations.

As a researcher, I want to search using structured data, so that I can find everything relevant to my inquiry across collections.

As a researcher, I want to access tagged working papers, so that my research process is better informed.

As a researcher, I want to access educational outreach materials, so that I can make connections with institutions.

As a researcher, I want to have accurate cross-collection citation information, so that I can find materials again.

As a researcher, I want to access digitized archival materials without mediation, so that I can decide what, I want to look at.```

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

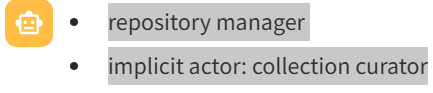
-limit the collection

-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.



**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 the collection to items sharing the same provenance
* limit the collection to represent a part of a collection with singular provenance
* assembly a collection from other collections and objects
* say one collection is related to another collection
* implicit goal: manage and organize collections

**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:
  + Retrieve information on all collections
  + Display list of collections
* compose collections:
  + Create a new collection
  + Add items to a collection
* limit the collection to items sharing the same provenance:
  + Identify provenance of items in a collection
  + Filter collection based on provenance
* limit the collection to represent a part of a collection with singular provenance:
  + Identify singular provenance of a subset of items in a collection
  + Restrict collection to items with singular provenance
* assembly a collection from other collections and objects:
  + Select collections and objects to include in the new collection
  + Merge selected collections and objects to form a new collection
* say one collection is related to another collection:
  + Establish a relationship between two collections
  + Define the nature of the relationship between the two collections

**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 ease of navigation and user-friendly interface for repository managers
* Enhance collaboration and communication among repository managers and curators
* Maintain data integrity and consistency within collections
* Improve scalability to handle a growing number of collections and items
* Ensure security and access control mechanisms for sensitive collections
* Implicit soft goal: Enhance the overall efficiency and effectiveness of collection management operations

**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 ease of navigation and user-friendly interface for repository managers:
  + Conduct user testing sessions to gather feedback on current interface
  + Implement intuitive navigation menus and search functionality
  + Optimize layout for efficient access to collection management features
* Enhance collaboration and communication among repository managers and curators:
  + Implement a messaging system for real-time communication
  + Enable collaborative editing and sharing of collection information
  + Integrate notification system for updates and alerts
* Maintain data integrity and consistency within collections:
  + Implement data validation checks for input fields
  + Regularly audit and clean up data inconsistencies
  + Establish version control mechanisms for collections
* Improve scalability to handle a growing number of collections and items:
  + Perform scalability testing to identify bottlenecks
  + Implement cloud-based storage solutions for scalability
  + Optimize database queries and indexing for improved performance
* Ensure security and access control mechanisms for sensitive collections:
  + Implement role-based access control for different user roles
  + Encrypt sensitive data within collections
  + Regularly update security protocols and conduct security audits
* Enhance the overall efficiency and effectiveness of collection management operations:
  + Automate repetitive tasks through scripting or workflow automation
  + Provide training sessions for repository managers on efficient collection management practices
  + Implement reporting tools for tracking key performance indicators

**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::Maintain data integrity and consistency within collections : Ensure ease of navigation and user-friendly interface for repository managers
* MAKE::Ensure security and access control mechanisms for sensitive collections : Enhance collaboration and communication among repository managers and curators
* HELP::Enhance collaboration and communication among repository managers and curators : Maintain data integrity and consistency within collections
* HELP::Improve scalability to handle a growing number of collections and items : Ensure security and access control mechanisms for sensitive collections
* EQUAL::Enhance the overall efficiency and effectiveness of collection management operations : Ensure security and access control mechanisms for sensitive 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>

* Maintain data integrity and consistency within collections DEPENDS-ON Ensure ease of navigation and user-friendly interface for repository managers
* Ensure security and access control mechanisms for sensitive collections DEPENDS-ON Enhance collaboration and communication among repository managers and curators
* Enhance collaboration and communication among repository managers and curators DEPENDS-ON Maintain data integrity and consistency within collections
* Improve scalability to handle a growing number of collections and items DEPENDS-ON Ensure security and access control mechanisms for sensitive collections
* Ensure security and access control mechanisms for sensitive collections DEPENDS-ON Enhance collaboration and communication among repository managers and curators

**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::Compose collections : Subtasks: Identify items for collection, Determine collection structure, Add items to collection
* AND DECOMPOSITION::Limit the collection to items sharing the same provenance : Subtasks: Identify provenance of items, Filter items based on provenance
* AND DECOMPOSITION::Limit the collection to represent a part of a collection with singular provenance : Subtasks: Identify singular provenance of items, Select items with singular provenance
* AND DECOMPOSITION::Assembly a collection from other collections and objects : Subtasks: Select source collections and objects, Merge source collections and objects
* AND DECOMPOSITION::Say one collection is related to another collection : Subtasks: Establish relationship type, Define connection details, Link 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>

```