**Actors Prompt:**

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

``` As a depositor, I want to have guarantees about data integrity, so that I can use my data in the future and I can fulfil funder requirements for archival.

As a depositor, I want to attach subject specific discoverability metadata to records, so that researchers in my discipline can find my data more easily.

As a depositor, I want to link to data stored in external repositories, so that I can store my data in an appropriate repository but still register it with the University and I don't have to deposit my data in multiple places.

As a depositor, I want to specify a disposal policy for my data, so that I do not accidentally breach laws or collaboration agreements.

As a fundingbody, I want to be reassured that researchers I fund have robust archival plans for their data, so that I can be sure that funding them is a worthwhile investment.

As a fundingbody, I want to harvest metadata on outputs from research I fund, so that I can analyse effectiveness of funding strategy and I can encourage cross fertilisation of research outputs.```

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

‘’’

- 'Actors':

-depositor

-fundingbody

- 'Goals':

-specify operations conducted

-attach operations conducted

-reassured operations conducted

-specify a disposal policy

-subject specific discoverability metadata attached

-reassured robust archival plans

'''

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.

* have guarantees about data integrity
* fulfil funder requirements for archival
* attach subject specific discoverability metadata to records
* find data more easily
* link to data stored in external repositories
* store data in an appropriate repository
* specify a disposal policy for data
* reassured that researchers have robust archival plans
* analyse effectiveness of funding strategy
* encourage cross fertilisation of research outputs

**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.

* have guarantees about data integrity:
  + Implement data backup mechanisms
  + Perform regular data validation checks
  + Ensure data encryption protocols are in place
* fulfil funder requirements for archival:
  + Establish a data archiving policy
  + Monitor compliance with archival standards
  + Provide documentation for archival processes
* attach subject specific discoverability metadata to records:
  + Develop metadata tagging guidelines
  + Integrate metadata management tools
  + Train depositors on metadata attachment
* find data more easily:
  + Implement search functionality
  + Enhance metadata indexing algorithms
  + Provide advanced filtering options
* link to data stored in external repositories:
  + Establish interoperability protocols
  + Develop data linking mechanisms
  + Ensure data synchronization with external repositories
* store data in an appropriate repository:
  + Identify suitable repositories for different data types
  + Establish data transfer protocols
  + Monitor repository availability and reliability
* specify a disposal policy for data:
  + Define data retention periods
  + Implement data deletion procedures
  + Ensure compliance with legal data disposal requirements
* reassured that researchers have robust archival plans:
  + Review researchers' data management plans
  + Provide guidance on archival best practices
  + Monitor researchers' adherence to archival plans
* analyse effectiveness of funding strategy:
  + Collect metadata on funded research outputs
  + Implement data analytics tools
  + Generate reports on research impact
* encourage cross fertilisation of research outputs:
  + Facilitate collaboration opportunities
  + Establish knowledge-sharing platforms
  + Organize cross-disciplinary events

**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 data integrity for long-term usability
* Enhance data discoverability for researchers in specific disciplines
* Streamline data registration process with external repositories
* Ensure compliance with data disposal regulations
* Promote effective funding strategy analysis
* Foster collaboration and knowledge sharing among researchers

**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 data integrity for long-term usability:
  + Implement data validation algorithms
  + Conduct regular data integrity checks
  + Backup data on secure servers
* Enhance data discoverability for researchers in specific disciplines:
  + Develop a standardized metadata schema
  + Enhance search functionality for subject-specific data
  + Implement keyword tagging for data categorization
* Streamline data registration process with external repositories:
  + Establish data transfer protocols with external repositories
  + Automate data registration procedures
  + Ensure compatibility with various repository formats
* Ensure compliance with data disposal regulations:
  + Define data retention policies
  + Implement secure data deletion processes
  + Conduct regular audits for data disposal compliance
* Promote effective funding strategy analysis:
  + Develop data analytics tools for funding impact assessment
  + Collect and analyze funding strategy data
  + Generate reports on funding effectiveness
* Foster collaboration and knowledge sharing among researchers:
  + Establish collaborative platforms for researchers
  + Organize interdisciplinary events for knowledge exchange
  + Provide incentives for collaborative research initiatives

**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::Ensure data integrity for long-term usability : Enhance data discoverability for researchers in specific disciplines
* MAKE::Enhance data discoverability for researchers in specific disciplines : Find data more easily
* HELP::Streamline data registration process with external repositories : Link to data stored in external repositories
* MAKE::Ensure compliance with data disposal regulations : Specify a disposal policy for data
* HELP::Promote effective funding strategy analysis : Analyse effectiveness of funding strategy
* MAKE::Foster collaboration and knowledge sharing among researchers : Encourage cross-fertilization of research outputs

**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>

* Ensure data integrity for long-term usability DEPENDS-ON Researchers FOR Compliance with data validation standards
* Enhance data discoverability for researchers in specific disciplines DEPENDS-ON Depositers FOR Subject-specific metadata attachment
* Streamline data registration process with external repositories DEPENDS-ON Fundingbodies FOR Effective collaboration with external repositories
* Ensure compliance with data disposal regulations DEPENDS-ON Depositers FOR Adherence to data disposal policies
* Promote effective funding strategy analysis DEPENDS-ON Fundingbodies FOR Access to research output metadata
* Foster collaboration and knowledge sharing among researchers DEPENDS-ON Depositers FOR Participation in knowledge-sharing initiatives

**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::Ensure data integrity for long-term usability : Implement data validation algorithms, Conduct regular data integrity checks, Backup data on secure servers
* AND DECOMPOSITION::Enhance data discoverability for researchers in specific disciplines : Develop a standardized metadata schema, Enhance search functionality for subject-specific data, Implement keyword tagging for data categorization
* OR DECOMPOSITION::Streamline data registration process with external repositories : Establish data transfer protocols with external repositories OR Automate data registration procedures
* AND DECOMPOSITION::Ensure compliance with data disposal regulations : Define data retention policies, Implement secure data deletion processes, Conduct regular audits for data disposal compliance
* OR DECOMPOSITION::Promote effective funding strategy analysis : Develop data analytics tools for funding impact assessment OR Collect and analyze funding strategy data
* OR DECOMPOSITION::Foster collaboration and knowledge sharing among researchers : Establish collaborative platforms for researchers OR Organize interdisciplinary events for knowledge exchange

**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>

```