**Actors Prompt:**

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

``` As a Developer, I want to get a Data Package into Node, so that I can start using the data for doing analysis and visualizations.

As a Researcher, I want to get a Data Package into Julia in seconds, so that I can start using the data for doing analysis and visualizations.

As a Publisher, I want to add type information to my data, so that it is more useful to others and can be used better with tools like visualization programs.

As a Publisher, I want to be able to provide a visualization of data in the Data Package, so that I can provide my analysis and show my work to users of the data.

As a Researcher, I want to be able to save new visualizations, so that I can share them with others or include them in the Data Package.

As a ResearcherPublisher, I want to know that my data conforms to its Data Package profile, so that I can feel trust in the validity and usefulness of the data. ```

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

‘’’

- 'Actors':

-Researcher

-Publisher

-Developer

-Researcher Publisher

- 'Goals':

-get operations conducted

-provide operations conducted

-understand operations conducted

-save operations conducted

-know operations conducted

-Get a Data Package

-get my Excel spreadsheet

-new visualizations saved

-a visualizations provided

-understand the ways

-know its Data Package profile

'''

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.

* Get a Data Package into Node
* Get a Data Package into Julia in seconds
* Add type information to data
* Provide a visualization of data in the Data Package
* Save new visualizations
* Know that data conforms to its Data Package profile

**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.

* Get a Data Package into Node:
  + Import Data Package into Node environment
  + Ensure data compatibility and integrity
  + Verify successful data import
* Get a Data Package into Julia in seconds:
  + Develop efficient data import mechanism in Julia
  + Optimize data loading process
  + Test data import speed in Julia environment
* Add type information to data:
  + Identify data types in the dataset
  + Assign appropriate data types to each column
  + Validate data type assignments for accuracy
* Provide a visualization of data in the Data Package:
  + Select suitable visualization tool
  + Generate visual representation of data
  + Embed visualization in Data Package format
* Save new visualizations:
  + Develop functionality to save visualizations
  + Implement storage mechanism for saved visualizations
  + Ensure saved visualizations can be easily accessed and shared
* Know that data conforms to its Data Package profile:
  + Define Data Package profile requirements
  + Validate data against profile specifications
  + Generate compliance report for Data Package profile

**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 availability for analysis and visualizations
* Enhance data usability with type information
* Improve data visualization presentation
* Establish trust in data validity and usefulness

**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 availability for analysis and visualizations:
  + Implement data storage solution
  + Develop data retrieval mechanism
  + Ensure data accessibility for analysis and visualization tools
* Enhance data usability with type information:
  + Establish data type standardization process
  + Integrate data type validation checks
  + Provide user interface for adding type information to data
* Improve data visualization presentation:
  + Research and select appropriate visualization techniques
  + Implement customizable visualization options
  + Conduct user testing for feedback on visualization quality
* Establish trust in data validity and usefulness:
  + Define Data Package validation criteria
  + Develop automated validation processes
  + Provide validation reports for stakeholders' review

**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::Researcher : Ensure data availability for analysis and visualizations
* MAKE::Publisher : Ensure data availability for analysis and visualizations
* HELP::Enhance data usability with type information : Improve data visualization presentation
* HURT::Improve data usability with type information : Ensure data availability for analysis and visualizations
* HELP::Improve data visualization presentation : Establish trust in data validity and usefulness

**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>

* Researcher DEPENDS-ON Publisher FOR Provide a visualization of data in the Data Package
* Publisher DEPENDS-ON Researcher FOR Save new visualizations

**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::Get a Data Package into Node : Import Data Package into Node environment, Ensure data compatibility and integrity, Verify successful data import*
* *AND DECOMPOSITION::Get a Data Package into Julia in seconds : Develop efficient data import mechanism in Julia, Optimize data loading process, Test data import speed in Julia environment*
* *AND DECOMPOSITION::Add type information to data : Identify data types in the dataset, Assign appropriate data types to each column, Validate data type assignments for accuracy*
* *AND DECOMPOSITION::Provide a visualization of data in the Data Package : Select suitable visualization tool, Generate visual representation of data, Embed visualization in Data Package format*
* *AND DECOMPOSITION::Save new visualizations : Develop functionality to save visualizations, Implement storage mechanism for saved visualizations, Ensure saved visualizations can be easily accessed and shared*
* *AND DECOMPOSITION::Know that data conforms to its Data Package profile : Define Data Package profile requirements, Validate data against profile specifications, Generate compliance report for Data Package profile*

**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>

```