**Actors Prompt:**

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

``` As a broker team member, I want to make some updates to the SQL codes for clarity.

As an Agency user, I want to have all derived data elements derived properly.

As a broker team member, I want to add the 00\*\*\*\*\* and 00FORGN PPoPCode cases to the derivation logic.

As a Data user, I want to see the office names derived from office codes, so that I can have appropriate context for understanding them.

As a UI designer, I want to begin user testing, so that I can validate stakeholder UI improvement requests.

As a Developer , I want to ensure that attempts to correct or delete non-existent records donot create new published data. ```

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

‘’’

- 'Actors':

-broker team member

-Data user

-Agency user

-Developer

- UI designer

- 'Goals':

-make operations conducted

-see operations conducted

-Have operations conducted

-ensure operations conducted

-begin operations conducted

-make some updates

-see the office names

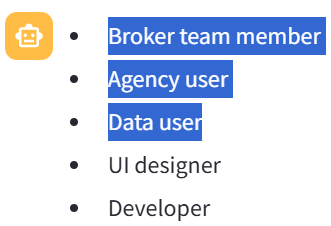
-have all derived data elements

-ensure delete non-existent records

-begin user testing

'''

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.

* Make updates to the SQL codes for clarity
* Have all derived data elements derived properly
* Add the 00\*\*\*\*\* and 00FORGN PPoPCode cases to the derivation logic
* See the office names derived from office codes
* Begin user testing
* Ensure that attempts to correct or delete non-existent records do not create new published data

**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.

* Make updates to the SQL codes for clarity:
  + Review existing SQL codes
  + Identify areas for improvement
  + Modify SQL codes for clarity
* Have all derived data elements derived properly:
  + Review current data elements
  + Identify missing derived data elements
  + Establish proper derivation logic
* Add the 00\*\*\*\*\* and 00FORGN PPoPCode cases to the derivation logic:
  + Analyze the current derivation logic
  + Incorporate 00\*\*\*\*\* PPoPCode case
  + Integrate 00FORGN PPoPCode case into logic
* See the office names derived from office codes:
  + Define mapping between office codes and names
  + Implement logic to derive office names
  + Verify correctness of derived office names
* Begin user testing:
  + Prepare test cases for user testing
  + Execute user testing sessions
  + Collect feedback from stakeholders
* Ensure that attempts to correct or delete non-existent records do not create new published data:
  + Implement validation checks for record existence
  + Define actions for correcting non-existent records
  + Test deletion functionality thoroughly

**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.

* Improve code clarity for better maintenance
* Ensure accurate derivation of data elements
* Enhance user understanding of office names
* Validate stakeholder UI improvement requests
* Maintain data integrity and consistency

**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.

* Improve code clarity for better maintenance:
  + Conduct code review sessions with team members
  + Implement consistent naming conventions for SQL codes
  + Document code changes for future reference
* Ensure accurate derivation of data elements:
  + Collaborate with subject matter experts to validate derived data elements
  + Establish automated tests to verify data derivation accuracy
  + Monitor data derivation process for any discrepancies
* Enhance user understanding of office names:
  + Develop a user-friendly interface to display derived office names
  + Provide tooltips or information icons for additional context on office names
  + Gather user feedback on the clarity and usefulness of displayed office names
* Validate stakeholder UI improvement requests:
  + Prioritize UI improvement requests based on stakeholder feedback
  + Implement mockups or prototypes to visualize proposed UI changes
  + Conduct usability testing with stakeholders to validate UI improvements
* Maintain data integrity and consistency:
  + Implement data validation checks to ensure data integrity
  + Establish data governance policies for maintaining data consistency
  + Regularly audit data sources and processes to prevent inconsistencies

**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>

* *HELP: Code clarity improvement contributes positively but might not be sufficient for accurate data derivation : Ensure accurate derivation of data elements*
* *MAKE: Accurate data derivation contributes positively and sufficiently to enhancing user understanding of office names : Enhance user understanding of office names*
* *HELP: User testing helps in validating stakeholder UI improvement requests but might not be sufficient : Validate stakeholder UI improvement requests*
* *BREAK: Incorrect data manipulation negatively and sufficiently affects data integrity and consistency : Maintain data integrity and consistency*

**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>

* Accurate data derivation DEPENDS-ON Data user FOR Subject Matter Expertise
* User testing DEPENDS-ON UI designer FOR Stakeholder feedback
* Code clarity improvement DEPENDS-ON Developer FOR Code review sessions
* Derived office names DEPENDS-ON Developer FOR Mapping between office codes and names

**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 accurate derivation of data elements : Subtask: Validate data sources, Subtask: Implement data transformation logic, Resource: Access to data repositories
* AND DECOMPOSITION::Ensure accurate derivation of data elements : Subgoal: Validate data accuracy, Subgoal: Enhance data integration, Softgoal: Ensure data consistency
* OR DECOMPOSITION::Maintain data integrity and consistency : Subtask: Implement data validation checks, Subtask: Audit data sources, Subtask: Define data governance policies
* OR DECOMPOSITION::Maintain data integrity and consistency : Subgoal: Ensure data accuracy, Subgoal: Prevent data inconsistencies, Resource: Data auditing tools

**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.

1. No duplicate values for 'name' attribute in XML
2. No duplicate values for 'id' attribute? in XML
3. No empty string as a value for 'name' attribute
4. If you include Date attributes 'modified' and 'created', the values of 'modified' attribute must be greater than the value of 'created' attribute
5. The XML must not have an empty grl-catalog element
6. Do not add elements outside the section named 'grl-catalog'
7. In the XML, element named 'intentional-element' must have non-empty values for following attributes- name, id, type
8. XML must have section 'actor-def' consisting of actors
9. 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'
10. XML must have a section with title 'actor-IE-link-def'
11. Within the section with name 'actor-IE-link-def', no two elements with different value for 'actor' attribute, have same value for 'ie' attribute"
12. 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?"
13. 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
14. 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
15. For an element with name 'contribution', the values for attributes- srcid and destid, in each tag must be different
16. Each element with name 'contribution', must have attribute 'srcid' and its value must not be empty string
17. Each element with name 'contribution' must have attribute 'destid' and its value must not be empty string
18. Each element with name 'decomposition' must have attribute 'srcid' and its value must not be empty string
19. Each element with name 'decomposition' must have attribute 'destid' and its value must not be empty string
20. Each element with name 'decomposition', must have different the values for attributes- 'srcid' and destid'