***EXERCISE 9***🡪 <https://www.lucidchart.com/pages/UML-use-case-scenario-examples>

**PROMPT:** The following should be textually analyzed and a use case diagram created containing several use cases. Identify the actors, use cases and associations. Please, use the user goal level approach. Please give me the PlantUML code for the use case diagram corresponding to the following text:

***For the process of publishing a story, a writer must draft a story and also revise it afterwards. In the meanwhile, the proofreader should review the story, which then is going to be seen by the editor, who should also suggest further edits. Then, the agent contacts publishing houses to sell the short story. The distributor then can package the story. Finally, the bookseller is able to deliver the story to final consumers.***

ChatGPT

**ChatGPT**

**User Goal Level Approach:**

**Actors:**

1. Writer
2. Proofreader
3. Editor
4. Agent
5. Distributor
6. Bookseller
7. Consumer

**User Goals:**

1. **Draft a Story:**
   * *Actor:* Writer
   * *Description:* Writers want to create an initial draft of a short story.
2. **Revise the Story:**
   * *Actor:* Writer
   * *Description:* Writers want to review and make revisions to the initial draft of the short story.
3. **Review the Story:**
   * *Actor:* Proofreader
   * *Description:* Proofreaders want to review the story for grammatical and typographical errors.
4. **Suggest Further Edits:**
   * *Actor:* Editor
   * *Description:* Editors want to suggest additional edits and improvements to enhance the story.
5. **Contact Publishing Houses:**
   * *Actor:* Agent
   * *Description:* Agents want to reach out to publishing houses to sell the short story.
6. **Package the Story:**
   * *Actor:* Distributor
   * *Description:* Distributors want to package the short story for distribution.
7. **Deliver the Story to Consumers:**
   * *Actor:* Bookseller
   * *Description:* Booksellers want to deliver the short story to the final consumers.

**Associations:**

1. Writer drafts and revises the story.
2. Proofreader reviews the story.
3. Editor suggests further edits.
4. Agent contacts publishing houses to sell the story.
5. Distributor packages the story.
6. Bookseller delivers the story to final consumers.

Now, let's create the PlantUML code for the use case diagram:

@startuml

left to right direction

actor "Writer" as Writer

actor "Proofreader" as Proofreader

actor "Editor" as Editor

actor "Agent" as Agent

actor "Distributor" as Distributor

actor "Bookseller" as Bookseller

actor "Consumer" as Consumer

rectangle "Story Publishing Process" {

usecase "Draft a Story" as UC1

usecase "Revise the Story" as UC2

usecase "Review the Story" as UC3

usecase "Suggest Further Edits" as UC4

usecase "Contact Publishing Houses" as UC5

usecase "Package the Story" as UC6

usecase "Deliver the Story to Consumers" as UC7

}

Writer --> UC1

Writer --> UC2

Proofreader --> UC3

Editor --> UC4

Agent --> UC5

Distributor --> UC6

Bookseller --> UC7

Consumer --> UC7

@enduml

**PROMPT:** Do you think that the goal of the agent is to contact the publishing houses or actually to sell the short story?

ChatGPT

**ChatGPT**

You're correct, and I appreciate the clarification. The goal of the agent is indeed to sell the short story, not just to contact publishing houses. I appreciate your attention to detail. Let me adjust the use case description and provide you with an updated PlantUML code:

**Updated User Goals:**

1. **Sell the Short Story:**
   * *Actor:* Agent
   * *Description:* Agents want to negotiate with publishing houses and successfully sell the short story.

**Updated PlantUML Code:**

@startuml

left to right direction

actor "Writer" as Writer

actor "Proofreader" as Proofreader

actor "Editor" as Editor

actor "Agent" as Agent

actor "Distributor" as Distributor

actor "Bookseller" as Bookseller

actor "Consumer" as Consumer

rectangle "Story Publishing Process" {

usecase "Draft a Story" as UC1

usecase "Revise the Story" as UC2

usecase "Review the Story" as UC3

usecase "Suggest Further Edits" as UC4

usecase "Sell the Short Story" as UC5

usecase "Package the Story" as UC6

usecase "Deliver the Story to Consumers" as UC7

}

Writer --> UC1

Writer --> UC2

Proofreader --> UC3

Editor --> UC4

Agent --> UC5

Distributor --> UC6

Bookseller --> UC7

Consumer --> UC7

@enduml

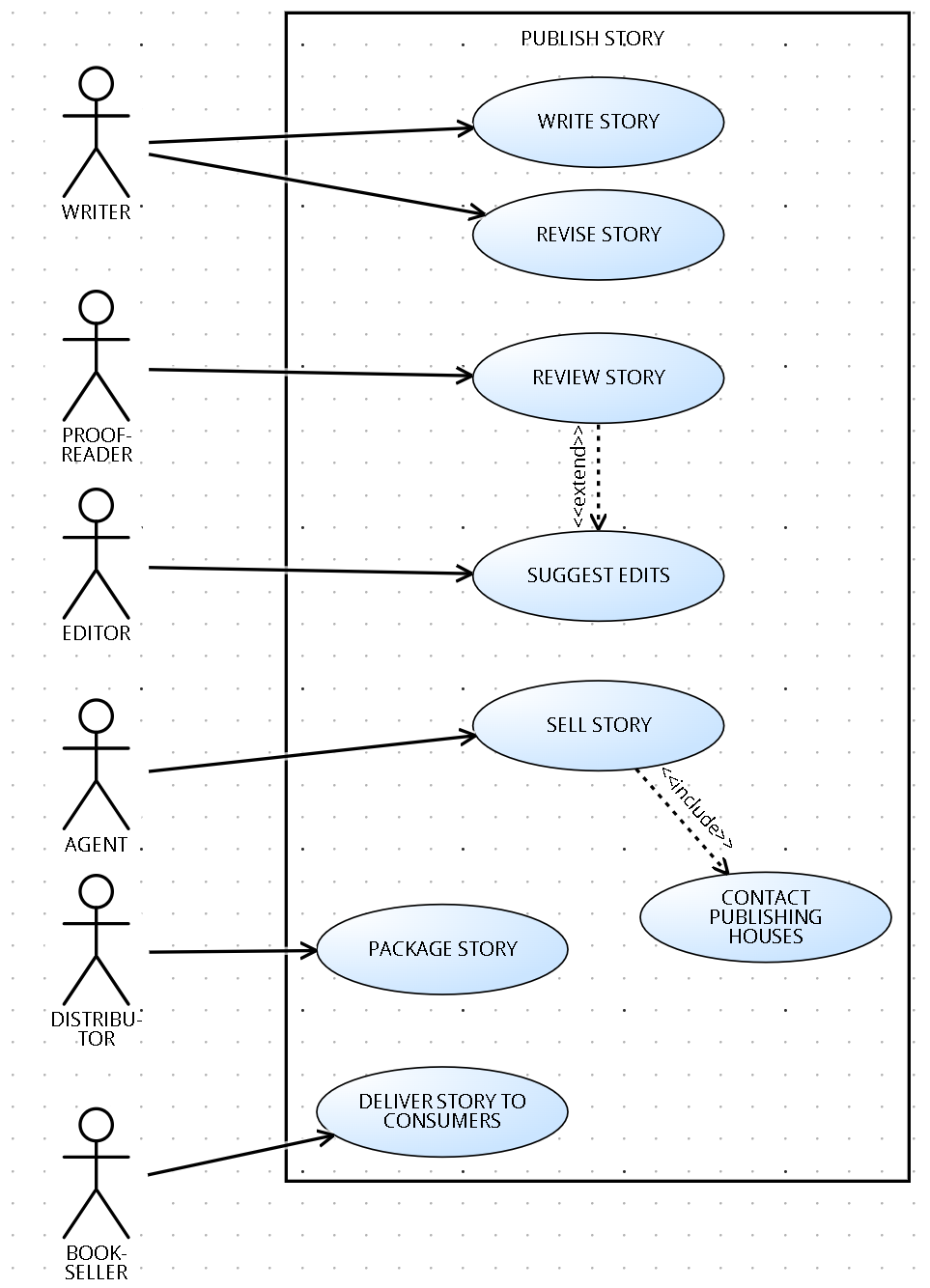
**Analysis:**

This exercise took a different approach compared to the ones we've previously analyzed, as it presented information in the form of a narrative describing the entire Use Case Diagram (UCD). I provided ChatGPT with a rephrased textual description of the main scenario without detailing the sequenced steps. The generated code closely resembled the original UCD from the exercise, with the notable addition of a new actor, "Consumer." While not strictly necessary in the process of publishing a story, it could be considered as a potential support actor for the use case "deliver the story to consumers," given that the bookseller needs the consumer to complete the story delivery.

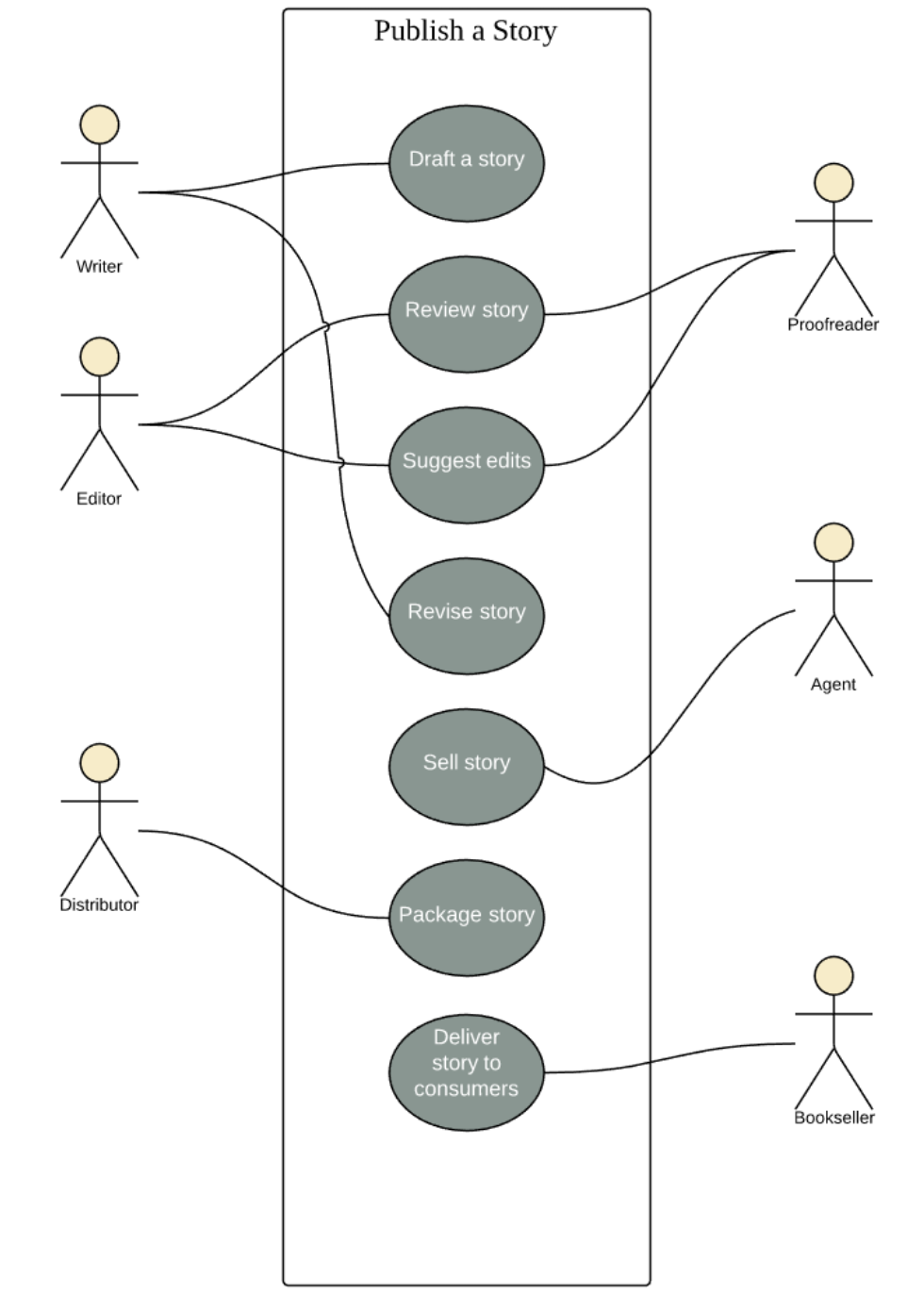
Another noteworthy observation, though not new, is that ChatGPT once again struggled to differentiate the user goal level of an actor. In this case, the goal of the "agent" should be to sell the story, and the action of contacting publishing houses is a means to achieve this goal. This action may not even be necessary, as the agent could potentially sell the story independently. To address this, one might consider including an association of type "extend" between the use cases "sell the story" and "contacting publishing house."

The final code generated by ChatGPT aligns well with the original solution and is the most suitable one, presenting a close match. In this case, it can be affirmed that ChatGPT's outcome was almost entirely accurate and correct.

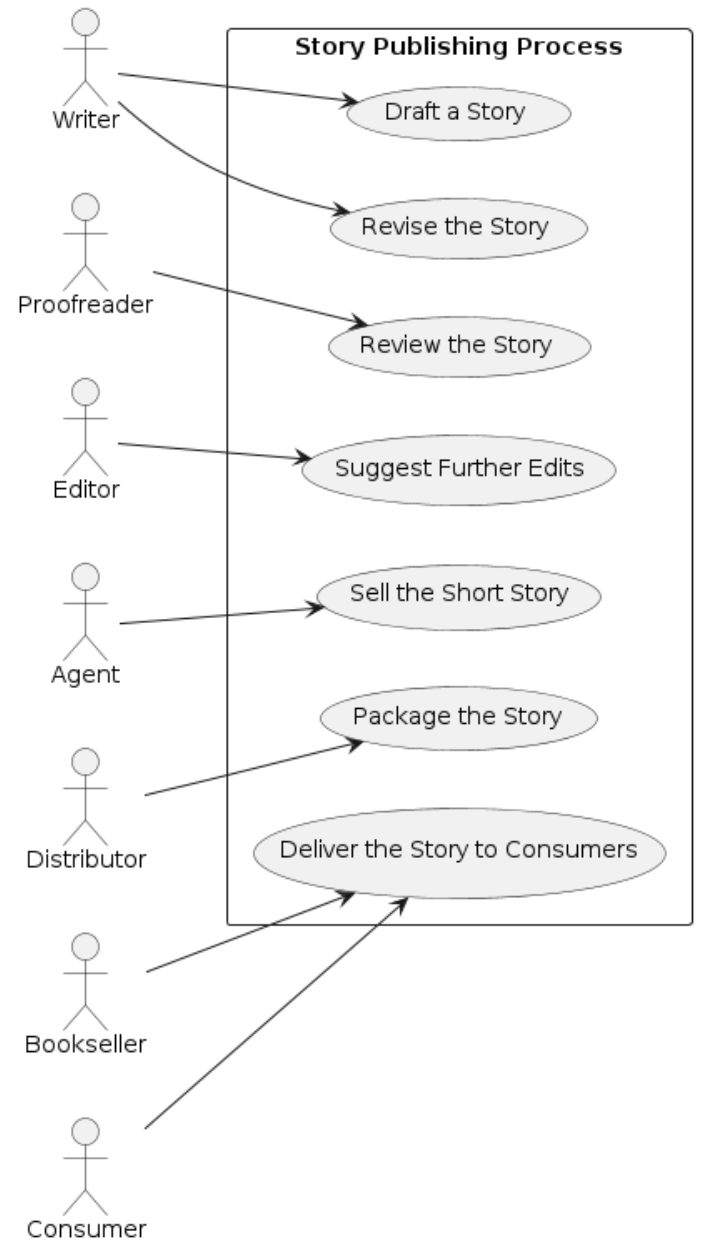
**MY SOLUTION:**

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**REFERENCE SOLUTION:**

****

**LLM SOLUTION:**

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