Task Assignments

Task Breakdown

1. **Write Introduction, Scope → Daniel**
   - Write the Introduction:
     - Write a brief paragraph summarizing the purpose and primary functions of your database. This should align with the overall goals and objectives outlined in your requirements document.
   - *Write the Scope:*
     - Provide a concise paragraph defining the boundaries of your project. The last two subsections establish continuity with the rest of the project.

2. **Entities & Glossary → Jack**
   - List all entities
   - For each entity write:
     a. weak or strong entity
     b. a short description of the entity's role in the database
   - Write the Glossary:
     - Create a list of key terms and acronyms used in the project. Define each term clearly to ensure that all stakeholders have a common understanding of the terminology.

3. **Attributes → Liam**
   - For each entity:
     a. list its attributes
     b. Choose primary key
   - For each attribute specify:
     a. the data type & constraints
     b. the attribute type (normal, composite, multivalued, primary key, or derived)

4. **Relationships → Jorge**
   - Define all relationships, including:
     a. Entities involved
     b. multiplicity
     c. Note if relationship is Specialization/ Generalization

5. **Rough ER Model Diagram → Sam**
   - Draw the ER model on paper to be converted to a computer model
   - The pencil-paper ER diagram should be complete

6. **Create Final ER Model Diagram → Aiden**
   - Convert the completed pencil-paper diagram to a professional-looking diagram
   - The pencil-paper model should not need to be modified, just redrawn

7. **Write Meeting Log & Submit Link on Canvas→ Aiden**

Project Part 3 Summary:

Objective. Use your requirements document to develop a comprehensive Entity-Relationship (ER) model that accurately represents the data requirements and relationships for your database project. This model will serve as a blueprint for your database design, capturing the essential entities, relationships, and constraints based on the requirements you have gathered. No formal template is required, but the following sections should be included in a requirement document (the *italic* parts are subsections).

Introduction [5 points]. *Project Overview*: Write a brief paragraph summarizing the purpose and primary functions of your database. This should align with the overall goals and objectives outlined in your requirements document. *Scope*: Provide a concise paragraph defining the boundaries of your project. The last two subsections establish continuity with the rest of the project. *Glossary*: Create a list of key terms and acronyms used in your project. Define each term clearly to ensure that all stakeholders have a common understanding of the terminology.

Identify ER Modeling Components [15 points]. *Identify Entities*: List all the major entities that will be part of your database. This includes the initial entities in the project description, the ones you identified during the requirements engineering, and the additional ones during your team brainstorming. *Define Attributes*: For each entity, list its attributes and specify the data types or constraints. For example, the `Book` entity might have attributes such as `ISBN`, `Title`, `Author`, `Genre, Price,` and `Stock Quantity`. *Define Relationships*: Determine how the entities are related to each other. Define the multiplicity (one-to-one, one-to-many, many-to-many) and any constraints. For example, a `Book` can be written by one or more `Author`, and a `Purchase` can include multiple `Book`.

Create the ER Model [30 points]: Use a diagramming tool (such as drawio.comLinks to an external site. or Lucidchart.comLinks to an external site., Visual ParadigmLinks to an external site., or GetMindLinks to an external site., or any other ER diagramming tool) to create your ER model. Ensure that your model includes:

- All identified entities and their attributes
- Primary keys for each entity
- All relevant relationships between entities with appropriate cardinality in `min..max` format
- Any additional constraints or notes that are relevant (but not directly presented in the ER model)

Review your ER diagram to ensure it accurately reflects the requirements. Check for completeness and consistency. Make sure all entities, attributes, and relationships are clearly represented.

Appendices. You are welcome to use appendices to provide additional information, e.g., your design choices, explain why you chose certain entities, how you determined the relationships, and any assumptions you made during the modeling process.

GitHub Repository Management. Continue to maintain all project artifacts in your GitHub repository. The team leader should then submit the repository URL for this project part on Canvas.