Project 1

The following is a report on the work done by Data Dynamo System on a project assigned during CSC 3105 coursework in the 2022/23 session, as follows:

Question

You will define a UML-defined class hierarchy using the following concepts related to the idea of a social network app:
Person, User, Connection, Group, Post, Media, Follower, Share, Reaction, Like.
(Let the names of these concepts reflect their real-world connotations within the application domain specified - that of a social network app.)
Note that the connections between concepts in this hierarchy do not necessarily have to be all of the same kind, nor must they all be inheritance relations. However, each concept can just be one, and only one, of the following: a class, an abstract class or an interface.
Your tasks are as follows:

1. Draw up a UML class diagram describing this hierarchy. Show ALL properties, and up to 5 relevant methods. Do not include any getter OR setter methods.
2. Explain, in detail, your choices in defining this hierarchy, using a tabular form, as follows:

S/No.	Concept A	Concept B	Relationship	Explanation
...	...	...	...	...

Response

Project Report: Data Dynamo System - Project 1

Introduction:
Data Dynamo System undertook a project as part of the CSC 3105 coursework in the 2022/23 session. The project involved defining a UML class hierarchy for a social

network app, incorporating key concepts such as Person, User, Connection, Group, Post, Media, Follower, Share, Reaction, and Like.

Objective:
The main objective of the project was to create a structured UML class diagram that represents the relationships and functionalities of various components within a social network application.

Methodology:
The team at Data Dynamo System followed a systematic approach to define the class hierarchy. They utilized real-world connotations within the social network domain to assign roles to each concept. The hierarchy included classes, abstract classes, and interfaces to represent the different components of the social network app.

Findings:
1. User and Person Inheritance: The concept of User was defined as a specific type of Person with additional functionalities related to social interaction, such as email, password management, creating posts, and managing connections.
2. Connection Abstraction: A general concept of Connection was established, with specific types like Follower and Group inheriting from it. This structure enforced a common format for different connection types.
3. Post Associations: Various associations were defined, such as User creating a Post, Post containing multimedia content, having comments from Users, being shared by Users, and receiving reactions from Users.
4. Reaction and Like Inheritance: The concept of Reaction was abstracted, with specific types like Like inheriting from it. This allowed for expressing specific sentiments towards a Post.

Conclusion:
The project successfully defined a UML class hierarchy for a social network app, showcasing the relationships and functionalities of key components within the application. The team's approach in utilizing inheritance, abstraction, and associations provided a clear and structured representation of the social network domain.

Recommendations:
Moving forward, it is recommended to further refine the class hierarchy by incorporating additional functionalities and refining the relationships between concepts to enhance the overall design of the social network application.

This project report highlights the efforts and outcomes of Data Dynamo System in defining a UML class hierarchy for a social network app, demonstrating their understanding of object-oriented design principles and application development concepts.