1. What is the most salient point between the commonalities and differences of queries formulated in SQL and those expressed in Prolog?

The most noticeable point between the commonalities and differences of queries formulated in SQL versus those expressed in Prolog lies in their fundamental approach to querying. Both SQL and Prolog are used to extract information, but their methodologies and purposes differ drastically. While SQL queries are structured to interact with relational databases, focusing on data retrieval, manipulation, and management using a set of predefined commands tailored for working with structured data. In contrast, Prolog queries are formulated based on logical rules and relations, emphasizing logical inference and reasoning to derive answers. While SQL queries operation within the framework of tables and predefined schemas, Prolog queries operation within a logical knowledge based defined by facts and rules.

1. Did you follow the same 'logic' when writing the queries in both languages?
2. What are the differences between the way the "data" and the "queries" are represented in SQL?

The differences between the representation of data and queries in SQL are notable due to SQL’s relational model. In SQL, data is stored in typically tables consisting of rows and columns, adhering to a predefined schema. Queries in SQL are expressed through the use of SQL statements like SELECT, INSERT, UPDATE, DELETE where conditions and clauses are applied to filter, manipulate, and retrieve from these tables. The representation of data is structured and tabular, facilitating efficient storage and retrieval operations.

1. What are the differences between the way the "data" and the "rules/queries" are represented in Prolog?

In Prolog, the representation of data and rules/queries differs significantly from SQL largely due to its logic-based paradigm. Data in Prolog is represented as a collection of facts and rules, defining relations and properties among entities. Facts represent concrete pieces of information, while rules establish the logical relationships and conditions. Queries in Prolog are formulated as logical goals or queries that seek answers based on the available facts and rules within the knowledge base. Unlike SQL, which operates on structured tables, Prolog operates within a logical knowledge base, where data and rules are interlinked to facilitate logical inference and reasoning.

Screenshots

