Please answer below questions based on this dimensional model and additional information provided

Graphical user interface, application, Teams

Description automatically generated

There is a central fact table and 4 dimensions – Time, A, B and C. The ratio m: n between 2 attributes of the hierarchy represents that for every ‘m’ occurrence of a parent element there will be a maximum of ‘n’ children.

As per the current state, this fact table contains

1. 3 Years

2. 4 A1s

3. 5 B1s

4. 5 C1s

**Q1**: What is the maximum possible fact data volume in terms of record/row count?

**Answer**:

**Q3**: The m:n ratio from attribute B3 to attribute B4 is changed from 1:3 to 1:1 due to some organizational changes. By how many times the maximum possible fact data volume (by record count) decreases?

**Answer**:

**Q4:** If there is an aggregate fact table at quarter dimension level with other attributes B4, C5 and A3. What is the maximum possible record count of this aggregate table as per the current state mentioned above?

**Answer**:

**Q5**: If the number of elements from the attribute C1 reduce from 5(current state) to 3 (potential future state), what does the maximum possible fact record count?

**Answer**:

**Q2**: Application owners decide to block all of the 4th quarters data (Time dimension) every year from all reporting purposes and request to not load that fact data anymore. Also, there is a need for maintaining 4 years of history for reporting. What does the maximum possible fact record count if there is no change in other dimensions mentioned in current state?

**Answer**: