Chapter 4: Patterns (Part 2)

Computed Pattern

Back to the Question

Correct Option:

- We need to calculate a value that is displayed 100 times a minute and is based on a field which updates once a minute.

  In this case, performing the aggregation once per minute and storing the result saves computations that would have been performed with each read operation, generating many unnecessary operations.

Incorrect Options:

- We need to group documents and sum on a field.

  Situations where data transformations are being used are central to choosing to implement the Computed Pattern. However, just performing data transformation does not necessitate the use of the Computed Pattern. Rather, recognizing that a value should be cached instead of transformed is a better indicator that we should be using this pattern

- We have too much information to store in a single document.

  Look at either the Subset Pattern or the Bucket Pattern to address this issue.

- We need to calculate a value that is displayed once per minute and is based on a field which updates 100 times per minute.

  The Computed Pattern does not save any computation in this situation, rather it either leads to performing more calculations or to having stale data.

- We need to calculate a value that is displayed 100 times a minute and is based on a field which updates 100 times per minute.

  You could benefit by using the Computed Pattern if you decide to do the computation less than 100 times per minute. This could be accomplished by using the Approximation Pattern.