What is DAX?

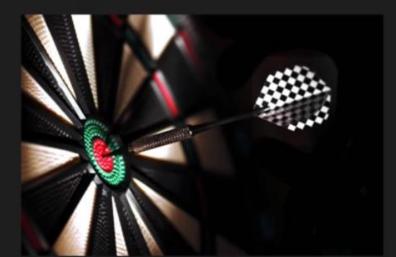


- DynamoDB Accelerator (or DAX) is a fully managed, clustered in-memory cache for DynamoDB.
- Delivers up to a 10x read performance improvement
- Microsecond performance for millions of requests per second
- Ideal for Read-Heavy and bursty workloads
- e.g. auction applications, gaming and retail sites during black Friday promotions

How Does It Work?



- DAX is a write-through caching service this means data is written to the cache as well as the back end store at the same time.
- Allows you point your DynamoDB API calls at the DAX cluster
- If the item you are querying is in the cache (cache hit), DAX returns the result to the application.



How Does It Work?



 If the item is not available (cache miss) then DAX performs an Eventually Consistent GetItem operation against DynamoDB

 Retrieval of data from DAX reduces the read load on DynamoDB tables

 May be able to reduce Provisioned Read Capacity



What is is NOT Suitable For?



- Caters for Eventually Consistent reads only so not suitable for applications that require Strongly Consistent reads
- Write intensive applications
- Applications that do not perform many read operations
- Applications that do not require microsecond response times



DAX Exam Tips



- Provides in-memory caching for DynamoDB tables
- Improves response times tor Eventually Consistent reads only
- You point your API calls the DAX cluster, instead of your table.
- If the item you are querying is on the cache, DAX will return it; otherwise it will perform an Eventually Consistent GetItem operation to your DynamoDB table.
- Not suitable for write-intensive applications or applications that require Strongly Consistent reads.