

NoSQL basics

Based on the codebase created during the previous module, implement follow functionality:

1. Create Mongo DB schema with follow structure:
 - a. Trainer's training summary
 - i. Trainer ID
 - ii. Trainer First Name
 - iii. Trainer Last Name
 - iv. Trainer Status
 - v. Years List
 1. Months List
 - a. Trainings summary duration
2. Create Repository that implement the search, update actions of the document by Username.
3. Create service that process coming event in follow way:
 - a. When new event come into Microservices Trainer try to extract Trainer's record by Username
 - b. If Trainer document does not exist, create new record with Year element as a year extracted from training date and Month extracted from Training data. Update Trainings summary duration value with Training Duration value.
 - c. If Trainer profile extracted successfully when find correct "Trainings summary duration" record based on Training data.
 - d. Re-calculate "Trainings summary duration" value by follow formula "Previous Trainings summary duration" value + "Training Duration" value from event request.
 - e. Save new value in Mongo DB document.

Notes:

1. Create index that will help to execute search by Trainer First Name & Trainer Last Name.
2. Pay attention on required validations.
3. Trainings summary duration have a number type.
4. Trainer Status field has Boolean type.
5. Cover code with unit tests.
6. Code should contain proper logging. Two levels of logging should be implemented - transactions and each operation transaction level. Integrate transactionId from Microservices task.