

Motivation:

In this healthcare application we chose the patient as the aggregate boundary and embedded related information from the appointments, doctor, hospitals, payment, diagnoses, shifts and medicines tables into a single document structure. This denormalization is well-suited for operational efficiency because all relevant data for a patient including their visits, treatments, and billing can be retrieved in a single read operation. This structure aligns with real world usage where patient centered views are crucial for scheduling, treatment planning, and analytics. It reduces the need for complex joins and improves performance in typical access patterns such as retrieving all medical history or billing records for a given patient.