

## Question

You are tasked with merging two existing systems:

- **Alerts Service** – generates alerts whenever suspicious activity occurs in customer transactions.
- **Cases Service** – groups related alerts and transactions under a single investigation case.

Currently, these are separate products with separate databases and APIs, but they are meant to belong to the same ecosystem.

Each **case** can contain **multiple alerts and customer transactions**, while each **alert** can belong to **only one case**.

Design a high-level **software architecture** to unify these systems into one cohesive project while ensuring:

1. Data consistency between alerts and cases.
2. Scalability for future integrations.
3. Clear ownership and boundaries between modules.
4. Ability to evolve features independently.