

CSE-214 Online - 2 (C2)

Structural Design Pattern

A legacy system uses a database that only supports SQL queries. However, a new requirement necessitates the use of NoSQL databases for better scalability and flexibility. The challenge is to integrate the new NoSQL database without modifying the existing SQL-based code. Provide a solution with an appropriate design pattern to seamlessly integrate the NoSQL database. Provide driver code to demonstrate the integration.

```
interface DatabaseQuery {
    void executeQuery(String query);
}

class SQLDatabase implements DatabaseQuery {
    @Override
    public void executeQuery(String sqlQuery) {
        System.out.println("Executing SQL query: " + sqlQuery);
    }
}

class NoSQLDatabase {
    public void runQuery(String noSQLQuery) {
        System.out.println("Executing NoSQL query: " + noSQLQuery);
    }
}
```