



Object Relational Mapping (ORM) Framework

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ABSTRACT

A Java based framework for Object Relational Mapping. ORM Framework is specifically designed for MySQL Database Management System.

Key-Words:- Java, SQL, Mapping, Queries

Introduction

With this framework, go SQL-free. This framework manages all operations related to insertion, updation, retrieval and deletion. Existing System does not allow some queries which are supported by JDBC but this ORM Framework does..

Problem Formulation

Without ORM mapping it is very difficult for coders to retrieve, manipulate or delete any field from the table. Sometimes writing long complex SQL queries becomes hectic. Existing system does not allow inserting multiple objects to the same table using a single query. Developer has to write a separate query to insert each object.

Literature Review

Existing System	Advantages	Disadvantages	Reference link
Hibernate	It provides a framework for mapping an object-oriented domain model to a relational database.	It does not allow inserting multiple objects to the same table using a single query	https://hibernate.org/orm/documentation/5.6/
Apache iBatis	iBatis maps the ResultSet from JDBC API to your POJO Objects.	When splicing complex SQL statements, there is no code flexibility and the spelling is complex	https://blog.mybatis.org/

Methodology

- This framework comes with a tool (POJO Generator) that eases all your efforts. Just create a conf.json file.
- Create a class with exception using POJOEquivalentToTable .
- POJO Generator generates POJO's by creating the folder structure that you specified in conf.json against package-name and also creating its equivalent jar file

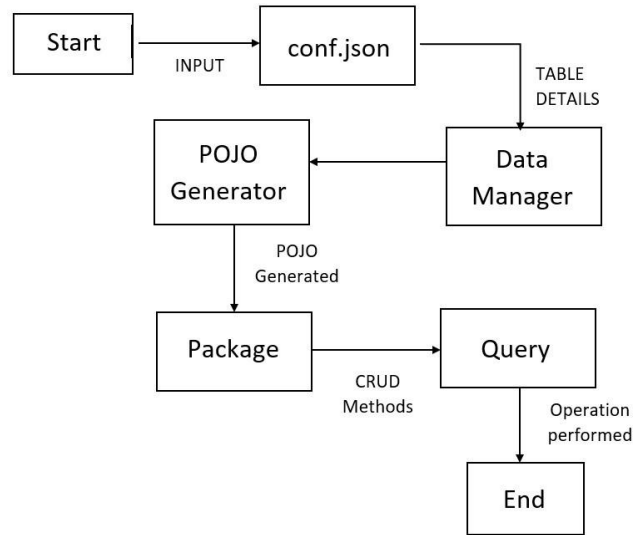


Fig.1 DATA FLOW DIAGRAM

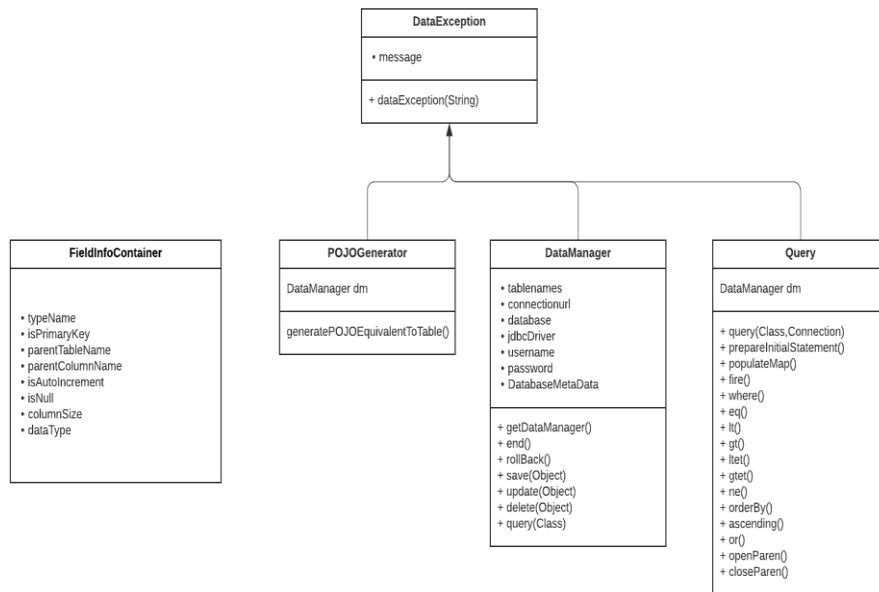


Fig.2 Class Diagram

Result Discussions

With the help of this Framework, we can save our time and speed up the development process. You don't need any SQL knowledge to use an ORM .

Conclusion

ORM automates the persistence of Java objects to relational tables, simplifies development, optimizes performance and isolates database interactions.

Limitation

This ORM is restricted to only MYSQL.

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