

SINGLETON AND JDBC

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TECHNICAL QUESTIONS:

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- 1.What is Singleton Design Pattern?
- 2.Why do we use Singleton?
- 3.How to create a Singleton class?
- 4.What are different ways to implement Singleton?
- 5.What is lazy initialization?
- 6.What is thread-safe Singleton?
- 7.What is double-checked locking?
- 8.How to prevent Singleton break using reflection?
- 9.How does Enum Singleton work?
- 10.Real-time example of Singleton?

TASKS

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- 1.Create a basic Singleton class.
- 2.Implement lazy initialization Singleton.
- 3.Create thread-safe Singleton.
- 4.Break Singleton using reflection and fix it.
- 5.Create Singleton using Enum

TECHNICAL QUESTIONS:

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- 1.What is JDBC?
- 2.What are JDBC components?
- 3.Steps to connect Java with Database?
- 4.What is DriverManager?
- 5.What is Connection, Statement, PreparedStatement?
- 6.Difference between Statement and PreparedStatement?
- 7.What is ResultSet?
- 8.What is SQL Injection?
- 9.What is transaction in JDBC?
- 10.What is connection pooling?

TASKS

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- 1.Write program to connect Java to MySQL.
- 2.Insert data into table using JDBC.
- 3.Fetch records from database.
- 4.Update records using PreparedStatement.
- 5.Delete record from table.
- 6.Perform transaction (commit/rollback).
- 7.Prevent SQL injection using PreparedStatement.
- 8.Read data and print in formatted way.