

Short Answer:

Answer the following questions with complete sentences in your own words. You are encouraged to conduct your own research online or through other methods before answering the questions. If you research online, please consult multiple sources before you write down your answers. You are expected to be able to explain your answers in detail (Provide examples to each question).

1. What is Spring Boot? How does it differ from Spring?
2. What are JDBC statements? List all types of JDBC statements and their usage.
3. What is Database Transaction?
4. What is ACID?
5. How do we usually perform Transaction Management in JDBC?
6. What is JdbcTemplate? And what are some of the advantages it has over standard JDBC?

Coding Questions:

Write code in Java to solve the following problems. Please write your own answers. You are highly encouraged to present more than one way to answer the questions. Please follow best practice when you write the code so that it would be easily readable, maintainable, and efficient. Clearly state your assumptions if you have any. You may discuss the questions with others, but please write your own code.

There is a bakery shop that sells pastries which requires some CRUD operations to be implemented using JDBC template:

1. CREATE a pastry
2. READ all pastries from the bakery
3. READ a pastry by its unique ID
4. UPDATE a pastry given its unique ID
5. DELETE a pastry by its unique ID

The domain of the Pastry has the following attributes:

int id
String name
float price

A SQL script (Pastry_SQL_Script.sql) has been provided for this assignment. Please run the script and base your implementation on it.