

Assignment 1

1. What is JDBC?

Explain the purpose of JDBC in enterprise applications. Discuss how it facilitates interaction between Java applications and databases with the help of examples.

2. Describe the JDBC Architecture.

Explain the two-tier and three-tier JDBC architectures with neat diagrams. Highlight their differences and use cases.

3. Explain the main components of JDBC.

List and describe the four major JDBC components. What is the role of the DriverManager and the Test Suite in JDBC?

4. Discuss the JDBC Classes and Interfaces.

Describe at least five important JDBC classes/interfaces and their roles in database connectivity and operation.

5. Write short notes on the key features of JDBC.

Mention and explain at least three key features that make JDBC a useful API in enterprise programming.

6. Compare the different types of JDBC Drivers.

Explain Type-1, Type-2, Type-3, and Type-4 JDBC drivers with advantages and disadvantages of each. Provide diagrams where necessary.

7. When should each type of JDBC driver be used?

Based on different deployment needs, describe scenarios where Type-1 through Type-4 drivers are most appropriate.