

Q)What is Java?

- 1)Object Oriented Programming Language
- 2)Platform
- 3)Technology

Q)Where is Java mostly used?

=>In web application development.

For eg. online banking application, online shopping application, online reservation application etc.

Q)Which is the basis for a company to provide services to customers?

=>data

Q)Which features should data possess in a web application?

- 1)persistence(permanence)
- 2)Security
- 3)easy accessibility

Note:- If we store data in a database we get all these features for data.

Q)What is the role of Java in a web application?

- 1)communicating with the database and performing CRUD operations
- 2)processing of data
- 3)making processed data available to the front-end

Q)What is the obstacle for Java-database communication?

=>To perform any task, a Java program can make only a method call. But, DBMS can't understand Java method calls. It understands only SQL.

=>Java compiler doesn't accept SQL directly.

=>Java and database are heterogeneous to each other.

Q)How Java-database communication?

=>by using JDBC

Q)What is JDBC?

=>JDBC is a Java based data access technology from Sun Microsystems.

Q)What is the architecture of JDBC?

=>JDBC follows client-server architecture

=>A software/program that requests for resources is a client.

=>A software that provides requested resources to clients is a server.

Q)What is a JDBC client?

=>Any Java program that uses JDBC technology to communicate with the database is known as a JDBC client.

Q)What is the JDBC Programming Model?

JDBC Programming Model Diagram

Q)What are the JDBC client side requirements to communicate with the database?

1)JDBC API

2)JDBC Driver

Q)What is JDBC API?

=>A collection of Library methods(that belong to the library classes and library interfaces)of java.sql package that is used to perform CRUD operations with the database is nothing but JDBC API.

Q)What is a JDBC Driver?

=>JDBC driver is a translation software written in Java according to JDBC specification.

=>JDBC driver performs the following duties to enable Java-database communication.

1)Receives JDBC API(method call) call from the JDBC program, translates into SQL call and passes on to the DBMS.

2)Receiving SQL (type) response from the DBMS, translating the same into Java format and handing over to the JDBC client.

Requesting for connection



Creating the Statement object



Submitting the SQL statement



Processing and presenting the result



closing the statement



closing the connection