LAKSHMAN_JAVA_IT_SCHOOL

ADV. JAVA

JDBC:

1. **Introduction to JAVA editions and its advantages.**
2. **Types of applications.**
3. **Is java language or technology or platform.**
4. **Types of languages.**
5. **Types of technologies.**
6. **Types of jar files.**
7. **Types of projects.**
8. **Types of archive files and its creation.**
   a) Jar
   b) War
   c) Ear
9. **Types of environment variables settings**
   a) Path
   b) Classpath
   c) JAVA_HOME
10. **Introduction to JVM memory locations.**
11. **Reflection API.**
    a) Java.lang.Class
    b) Java.lang.Method
    c) Java.lang.Constructor
    d) Java.lang.annotation.Annotation
    e) Java.lang.Field.
12. **Web architecture using jdbc, Servlet, jsp.**
13. **Types of logics.**
    a) Persistence logic
    b) Data gathering logic
    c) Conversion logic
    d) Validation logic
    e) Integration logic

    f) Session logic.
    g) Middleware logic
    h) Business logic
    i) View logic
14. **Introduction to persistence stores**
15. **Types of persistence stores**
16. **Drawbacks of file management system.**
17. **Advantages of RDBMS.**
18. **Terminology related persistency.**
    a) Persistence store.
    b) Persistence data.
    c) Persistence logic.
    d) Persistence technology.
    e) Persistence operations.
19. **Introduction to specification and implementation.**
20. **Introduction to new keyword, forName(-), newInstance(-).**
21. **Difference between block and method and constructor.**
22. **Introduction to factory methods.**
23. **Introduction to loosely coupling related to JEE technologies.**
24. **Introduction to ODBC and its disadvantages.**
25. **Introduction to JDBC and its advantages.**
26. **Introduction to JDBC architecture.**

27. **Types of JDBC drivers and its advantages and disadvantages.**
    a) Type-1 driver.
    b) Type-2 driver.
    c) Type-3 driver.
    d) Type-4 driver.
28. **Introduction to JDBC API.**
29. **Sample application on JDBC API.**
30. **Introduction to executeQuery(-), executeUpdate(-), execute(-).**
31. **How to create ConnectionFactory in Jdbc?**
32. **Introduction to statement object and its types.**
    a) Statement
    b) PreparedStatement
    c) CallableStatement
33. **Working with stored procedure by using CallableStatement.**
34. **Working with functions by using CallableStatement**
35. **Introduction to ResultSet object and it types.**
    a) **Forward ResultSet**
    b) **Scrollable ResultSet**
       - Sensitive Scrollable ResultSet
       - Insensitive Scrollable ResultSet
    c) **Updateable ResultSet**
       - Inserting records in table
       - Updating records in table
       - Delete records in table
36. **Information about following methods**
    a) Last(), first(), next(), beforeFirst(), afterLast(), moveToInsertRow(), insertRow(), updateXxx(), deleteRow().
37. **Introduction to Metadata objects.**
    a) ResultSet MetaData.
    b) Database MetaData.
38. **Introduction to SQL99 datatypes.**

a) **BLOB**
   - Inserting single image into database
   - Inserting multiple images into database
   - Reading single image from database
   - Reading multiple images from database
b) **CLOB**
   - Inserting single text file into database
   - Inserting multiple text file into database
   - Reading single text file from database
   - Reading multiple text file s from database
c) Object
d) Array
39. **Batch Updates.**
    a) Batch updations with Statement object.
    b) Batch updations with PreparedStatement object.
40. **Transaction Management.**
41. **Connection Pooling.**
42. **How to upload video into db.**
43. **Introduction to RowSets.**
    a) **Connected rowsets.**
       - JdbcRowSet
    b) **Disconnected rowsets.**
       - CachedRowSet
       - WebRowSet
       - FilteredRowSet
       - JoinRowSet
44. **How to working both the database(oracle, mysql) from same application.**
45. **Working with java.sql.Date for inserting and reading from table.**
46. **ResourceBundle usage in JDBC**

47. Java.util.Prperties usage in JDBC

SERVLETS:

1. **Introduction to application.**
2. **Types of applications.**
3. **Introduction to web application and web server and advantages.**
4. **Web server architecture.**
5. **Introduction to singleton design pattern.**
6. **Introduction Servlet**
7. **Servlet execution models.**
   a) Single instance multi thread model.
   b) Multiple instance multi thread model.
8. **Introduction to how many can we develop web component.**
9. **Introduction to web project structure.**
10. **Servlet life cycle phases and methods.**
11. **Drawbacks javax.servlet.Servlet interface.**
12. **Introduction to javax.servlet.GenericServlet.**
13. **Introduction to Eclipse IDE tool.**
14. **Html to Servlet communication.**
15. **Introduction to implicit objects.**
16. **Introduction to ServletRequest and ServletResponse objects.**
17. **Form validations in Servlet.**
    a) Client side validations.
    b) Server side validations.
18. **Working with MIME types.**
19. **Different types of tags related web.xml file**
20. **Difference between default Servlet and welcome Servlet.**
21. **Introduction related ServletConfig and ServletContext objects.**
22. **Working with initialization parameters.**
23. **Introduction to RequestDispatcher object.**
    a) Forward(-,-)
    b) Include(-,-)
24. **Programs on getInitParameters(-), getInitParameterValues(-), getParameterNames(), getParameterMap(), setAttribute(-,-), getAttribute(-), removeAttribute(-), getAttributedNames(), getHeader(-), getHeaders(-), getHeaderNames(-)**
25. **URL and URL types**
    a) Absolute url.
    b) Relative url.
26. **Introduction to javax.servlet.http.HttpServlet.**
27. **Difference between GenericServlet and HttpServlet.**
28. **Difference between doGet() and doPost().**
29. **Fileuploading and FileDownloading.**
30. **Communication between Servlet and database.**
31. **Connection pooling at server side.**
32. **Front Control design pattern.**
33. **Introduction to sendRedirect process.**
34. **Session Tracking.**
    a. Cookies.
    b. URL rewriting.
    c. Hidden Form Fields.
    d. Http Session.
35. **Introduction to Filters.**
36. **Introduction to Listeners.**
37. **Introduction to Wrappers.**
38. **Security in Servlets.**

JSP:

1. **Introduction to JSP.**
2. **How many ways can we develop web applications.**
3. **Drawbacks of Servlet technology.**
4. **Advantages of JSP technology.**
5. **Life cycle phases and methods of JSP.**
6. **Introduction tag.**
7. **Introduction to jsp implicit objects.**
   - a) Page
   - b) Request
   - c) Response
   - d) Application
   - e) Config
   - f) Exception
   - g) pageContext.
   - h) Out
   - i) Session
8. **Introduction to jsp scope objects**
   - a) Request
   - b) Response
   - c) Application
   - d) Session.
9. **Introduction to pageContext object.**
10. **How to configure jsp file in web.xml**
11. **Jsp program in eclipse**
12. **Page implementation class introduction.**
13. **Types of elements.**
    - a) **Scripting tags.**
      - Scriptlet tag.
      - Declaration tag.
      - Expression tag.
    - b) **Directive elements.**
      - @include
      - @page
      - @taglib
    - c) **Action elements.**
      - **Standard Action Tags.**
        - **<jsp: include>**
          - **<jsp:forward>**
          - **<jsp: useBean>**
          - **<jsp:param>**
          - **<jsp:setProperty>**
        - **<jsp:getProperty>**
        - **<jsp:plugin>**
        - **<jsp:fallback>**
      - **Custom Action Tags.**
        - **Tag without body.**
        - **Tag with body.**
        - **Tag with body and attributes.**
    - d) **JSTL**
      - a) Core tags
      - b) Formatting tags
      - c) Functional tags
      - d) Xml tags
      - e) SQL tags
14. **Html to jsp communication.**
15. **Servlet to jsp communication.**
16. **Jsp to Servlet communication.**
17. **Jsp to database communication.**
18. **Jsp to txt file communication.**
19. **Expression Language.**
20. **MVC in jsp**