Web Application Risk Assessment and Security in Java

1) Introduction to Internet
   a. Client/Server Architecture
   b. Web Applications and Internet
   c. Role of Java technology in Internet

2) Introduction to Information security
   a. Need of Information security
   b. Basic concepts of security
   c. Internet security Incidents and their Evolutions
   d. Security Myths and realities

3) Introduction to web Security
   a. Enterprise application
   b. Need of security in enterprise application
   c. Web application incidents
   d. Web application security challenges

4) Web application security – case study

5) Insight into web application security
   a. The need of risk management
   b. Introduction to Risk assessment
   c. Developing policies
   d. Threat analysis
   e. Risk mitigation strategy

6) Risk assessment case study of e-commerce application

7) Developing Secure Java web application
   a. Understanding access control
   b. Developing robust access controls
   c. Security compliance and web application control

8) Implementing secure Authentication and authorization system.
   a. Java Security overview
   b. Java Authentication and authorization services.
   c. JAAS Core
   d. Process of Authentication
   e. Process of authorization

9) Application data protection technique
   a. Understanding Cryptography.
   b. Implementation with Web application.
   c. Java Secure Socket Extension
d. Support classes and Interfaces

10) Effective Application Monitoring: Security Logging for Web Applications
   a. The Importance of Logging for Web Applications—A Primer
   b. Developing a Security Logging Mechanism for a Web Application
   c. Security Compliance and Web Application Logging
   d. Logging Implementation Using Java

11) Secure Coding Practices for Java Web Applications
   a. Java Secure Coding Practices overview
   b. Input Validation and Output
   c. Java Implementation for Input Validation and Output Encoding
   d. Secure Database Queries
   e. Errors and Exceptions in Java