

# Advanced Java Programming

## Session 1: Introduction to Applet and Swing

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1. Introduction to Applet and Swing – Creating Applet in Java.
2. Identifying various stages of an Applet life Cycle, various Graphic method in java, the AWT control components,
3. The Swing component class Hierarchy, using top level swing containers.
4. Using intermediate level swing containers, using the atomic component.
5. Using the Layout Manager, Flow Layout Manager, Border Layout Manager and Grid Layout Manager.

## Session 2: Introduction to Event Handling

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1. Introduction to Event Handling – Identifying the source of Event.
2. Event Listeners and Event Handlers, the Delegation Event Model.
3. Event classes, Event Listener Interface, Action Listener interface.
4. MouseListener Interface Adapter classes- the Mouse Adapter class.
5. The MouseMotion Listener Interface.

## Session 3: Introduction to JDBC

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1. Introduction to JDBC – What is JDBC. Database connectivity.
2. JDBC Architecture, JDBC drivers, Using JDBC API – Loading a Driver, connecting and executing JDBC statement, Handling SQL Exceptions.
3. Accessing Result Sets, method of Result Set interface, Methods of Prepared Statement interface.
4. Retrieving row, inserting row, Managing Database Transactions, creating and calling stored procedures in JDBC, using Metadata in JDBC.

## Session 4: Introduction to JavaBean

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1. Introduction to JavaBean – javabean concept.
2. Software components and javabeans , elements of javabeans.
3. Javabean component specification, services of javabean components, types of javabean.
4. Beans development kit, user defined javabeans, creating javabean Applet using BDK.
5. Types of javabean properties creating custom Events.
6. Event class, EventListener, Event Handler.

## Session 5: RMI (Remote Method Invocation)

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1. RMI – Overview of distributed Application.
2. Remote Method Invocation, components of RMI application.
3. RMI architecture, RMI Packages, Distributed Garbage collection, creating Distributed application using RMI.
4. Creating remote interface, implementing remote interface, creating RMI server.
5. Creating RMI client, Running the RMI application.
6. Transmitting files using RMI , client side checks.

## Book References

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1. Mastering Java2 – John Zukowski, BPB Publication.
2. Java Programming – Khalid Mughal, Pearson Education.
3. Advance Java Programming – Amit K. Mishra