

Application development using J2ME

Synopsis & Objective of Course

Java 2, Micro edition (J2ME) forms the heart of application development in mobile phones, personal digital assistants (PDAs), consumer electronics, and other such embedded devices. Adopting a modular and scalable architecture, the language is best suited for small devices with a limited processor power and small memory size. It has two primary kinds of components—configurations and profiles. A trainee will master the J2ME configuration which defines the minimum set of Java virtual machine features and Java class libraries available for a particular category of devices.

A trainee will also gain efficient knowledge in using APIs in runtime environment.

Target Audience

Programmers & application developers who wish to gain expertise in programming mobile phones and entry-level PDAs using Mobile Information Device Profile (MIDP) combined with Connected Limited Device Configuration (CLDC) as the JRE.

Prerequisites

Attendees should have a basic knowledge of OS & programming.

An understanding of the C language & Object Oriented Programming is essential.

A knowledge of Java Language helps but is not a compulsion.

Delivery

The entire training module focuses on clarity of concepts & development oriented programming. Adequate amount of lab exercises support the intensive theory classes for transforming a trainee into an application programmer.

Duration : 8 days

Course Contents

Day	Topic	Sub topics
Day 1	Introduction to Java Language	Java Virtual Machine and byte code Source and compilers Class files, loaders Object orientation Classes and instances Object Oriented techniques Classes and Objects Abstract classes Interfaces Polymorphism Error handling

Day 2	J2ME Architecture	<p>Overview of J2ME</p> <p>Configurations and Profiles</p> <p>Connected Limited Device Configuration (CLDC)</p> <p>Connected Device Configuration (CDC)</p> <p>Mobile Information Device Profile (MIDP)</p> <p>List of JSRs,</p> <p>J2ME and Other Java Platforms</p> <ul style="list-style-type: none"> Java Card Embedded Java Personal Java
Day 3	The Mobile Information Device Profile and MIDlets	<p>MIDP Overview</p> <p>The MIDP Java Platform</p> <p>MIDlets and MIDlet Suites</p> <p>MIDlet Execution Environment and Lifecycle</p> <p>Developing MIDlets</p> <p>Delivery and Installation of MIDlets</p>
Day 4	MIDlet User Interfaces	<p>User Interface Overview</p> <p>The High-Level User Interface API</p>
Day 5	The Low-Level MIDlet User Interface API	<p>The Canvas Class</p> <p>Painting and the Graphics Class</p> <p>Graphics Attributes</p> <p>Drawing Lines and Arcs</p> <p>Translating the Graphics Origin</p> <p>A Simple Animation MIDlet</p> <p>The Graphics Clip</p> <p>Rendering Text</p> <p>Images</p> <p>Event Handling</p> <p>Multithreading and the User Interface</p>
Day 6	Wireless Java: Networking and Persistent Storage	<p>Networking Architecture for Small Devices</p> <p>Sockets</p> <p>Datagram</p> <p>HTTP Connections</p> <p>Persistent Storage</p>

Day 7	J2ME Programming Environments	The J2ME Wireless Toolkit MIDP for PalmOS J2ME and Forte for Java Other Integrated Development Environments
Day 8	J2ME Packages and Classes	J2ME Package Contents

Trainers' Profile

Corporate Trainer(s) with more than 6 years of experience in embedded development & corporate training in CMM level5 companies.

Scheduled & On-site Training

Apart from in-house training programs, comprehensive training can be also provided as per the requirement & will be optimally customized as per the client's needs.

For training calendar, availability of seats & other details please mail us at training@sigmasolutions.co.in