



COURSE TITLE	: Mobile Application Development
COURSE PREREQUISITES	: Java Language and Object Oriented Principles Significant experience developing software applications
COURSE DURATION	: 16 weeks (3 hours/week)
COURSE METHODOLOGY	: Combination of lecture, lab exercises and written exercises

Course Description

Mobile Application Development aims to teach students how to develop mobile applications using the Java 2 Platform, Micro Edition (J2ME). The course focuses on the Connected Limited Device Configuration (CLDC) and Mobile Information Device Profile (MIDP) of J2ME. Students will also learn how to architect and develop enterprise applications using J2ME, XML, JDBC, Servlets and JSP/JSTL upon finishing this course.

Course Outline

Week	Topics
1 – 2	01. Introduction to Mobile Application Programming <ul style="list-style-type: none"> • Mobile Devices • Java 2 Micro Edition • CLDC • CDC • MIDP • MIDlets
3	02. Getting Started with Mobile Programming <ul style="list-style-type: none"> • "Hello, World!" MIDlet • Using Netbeans and Mobility Pack
4 – 5	03. High Level UI <ul style="list-style-type: none"> • Display • Displayable • Command • Ticker • Screen • Item • Alert • List • TextBox • Form
6 – 7	04. Low Level UI <ul style="list-style-type: none"> • Canvas • Graphics

7 – 8	05. Persistent Storage <ul style="list-style-type: none">• Record Stores• Record Enumeration• Record Comparator• Record Filter
9 – 10	06. Networking <ul style="list-style-type: none">• Generic Connection Framework• HTTP Connection• HTTPS Connection• TCP Sockets• ServerSockets• Datagrams
11 – 12	07. J2ME and Enterprise Computing <ul style="list-style-type: none">• Servlets• JSP/JSTL• JDBC• XML Parsing
13	08. Optimizations <ul style="list-style-type: none">• Program Execution• JAR Size• Networking• Memory Usage
14 – 15	09. Optional Packages <ul style="list-style-type: none">• Overview of optional packages• MMAPi• WMA
16	10. Other Topics <ul style="list-style-type: none">• Timers• Push Functionality

Requirements

Minimum Hardware Configuration

- **Microsoft Windows operating systems:**
 - **Processor:** 500 MHz Intel Pentium III workstation or equivalent
 - **Memory:** 384 megabytes
 - **Disk space:** 125 megabytes of free disk space
- **Solaris™ operating system:**
 - **Processor:** 450 MHz Ultra™ 10 workstation or equivalent
 - **Memory:** 384 megabytes
 - **Disk space:** 125 megabytes of free disk space
- **Linux operating system:**
 - **Processor:** 500 MHz Intel Pentium III workstation or equivalent
 - **Memory:** 384 megabytes
 - **Disk space:** 125 megabytes of free disk space

Recommended Hardware Configuration

- **Microsoft Windows operating systems:**
 - **Processor:** 780 MHz Intel Pentium III workstation or equivalent
 - **Memory:** 512 megabytes
 - **Disk space:** 125 megabytes of free disk space
- **Solaris™ operating system:**
 - **Processor:** 500 MHz Ultra™ 60 workstation or equivalent
 - **Memory:** 512 megabytes
 - **Disk space:** 125 megabytes of free disk space
- **Linux operating system:**
 - **Processor:** 800 MHz Intel Pentium III workstation or equivalent
 - **Memory:** 512 megabytes
 - **Disk space:** 125 megabytes of free disk space

Operating System

NetBeans IDE runs on operating systems that support the Java™ VM. Below is a list of platforms that NetBeans IDE has been tested on.

- Microsoft Windows XP Professional SP1
- Microsoft Windows 2000 Professional SP3
- Solaris operating system (SPARC® Platform Edition), versions 8, 9, and 10
- Solaris operating system (x86 Platform Edition), versions 8, 9, and 10
- Red Hat Linux 9.0
- Red Hat Enterprise Linux 3
- Sun Java Desktop System

NetBeans IDE is also known to run on the following platforms:

- Various other Linux distributions
- Mac OS X 10.1.1 or later
- Open VMS 7.2-1 or later
- Other UNIX® platforms, such as HP-UX

Software

- NetBeans 4.0
- NetBeans Mobility Pack 4.0

For more information, please visit:

<http://www.netbeans.org/community/releases/40/relnotes.html>