



Capstone Courseware, LLC

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Java Wireless Programming

Version 2.1

Instructor's Guide



Overview

This course covers the Mobile Information Device Profile, or MIDP, version 2.1. An overarching theme in coding for MIDP devices is dealing with the profile limitations: memory, processing power, local storage, etc. There's a sense of going back to the future, because so many of the techniques are reminiscent of programming for personal computers back when they were drastically limited as well – or for even older, smaller and dumber devices. Nowadays, memory management is considered an advanced and even esoteric subject for most Java programmers, partly because of garbage collection but partly too because target hardware has such a bounty of available memory. Not so in MIDP, and it's as if we've found ourselves starting campfires with flints and carrying all our own water.

The first few chapters of the course build up the MIDP architecture in layers, closely following the stack of relevant specifications from KVM to CLDC to MIDP itself. Then we spend a few chapters learning the API, more or less a chapter per package, thus getting familiar with UI, events, persistent storage, and networking capabilities. The last three chapters cover more advanced topics and best practices.





Timeline

The following breakdowns are approximate, and every class will vary.

Day 1

3½ hours	Chapter 1
3 hours	Chapter 2

Day 2

2 hours	Chapter 3
2½ hours	Chapter 4
2 hours	Chapter 5

Day 3

3 hours	Chapter 6
2 hours	Chapter 7
2 hours (spans days)	Chapter 8

Day 3

2 hours	Chapter 9
2 hours	Chapter 10
2 hours	Chapter 11





Revision History

Version 2.1 overhauls the course for MIDP 2.1.

Version 1.0 is the initial release of the course.

Troubleshooting

If you run into any trouble with code exercises, the first and best thing to do is to double-check that the classroom machines have been set up precisely according to the course setup guide. Especially, the wrong version of a tool can cause significant problems; don't wander off-book in this way unless absolutely sure you can support the software that you prefer and that we haven't tested. Check environment variable settings carefully, too; these are the cause of a great many classroom glitches.

Errata

At this time there are no errata for the course.





Feedback

We very much appreciate whatever feedback we can get on our courseware – especially from the instructor's perspective. Naturally, the more specific, the better, and we strongly encourage you to make notes on issues you may encounter in the classroom, whether they're typos, missing files, or suggestions for clearer language to explain a concept. We can't guarantee that we'll act on every suggestion, but we're aggressive about stamping out problems and try to be highly responsive. Hopefully this means that when you give us good feedback, you get a better course the next time you need to teach it.

Please direct all courseware feedback to

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877-227-2477

For anyone who's interested, we have a very informal defect-tracking system, based in Excel spreadsheets with columns to capture defect location, nature, status, and author feedback. Ultimately, feedback goes into these sheets, so if you want a template, we'll be happy to provide one, to facilitate the reporting process.

