



Java Programming using the Eclipse IDE

Introduction and Housekeeping

transforming performance
through learning

Chapter overview

- **Objectives**
 - To explain the aims and objectives of the course
- **Contents**
 - Course administration
 - Course objectives and assumptions
 - Introductions
 - Any questions?
- **Exercise**
 - Locate the exercises

At the end of this session you will be able to:

Explain the aims and objectives of the course

Contents:

Course administration

Course objectives and assumptions

Introductions

Administration

- Front door security
- Name card
- Chairs
- Fire exits
- Toilets
- Smoking
- Coffee Room
- Timing
- Breaks
- Lunch
- Downloads & Viruses
- Admin support
- Messages
- Taxis
- Trains/Coaches
- Hotels
- First Aid
- Telephones/Mobiles

3

We need to deal with practical matters right at the beginning.

Above all, please ask if you have any problems regarding the course or practical arrangements. If we know early on that something is wrong, we have the chance to fix it. If you tell us after the course, it's too late! We ask you to fill in an evaluation form at the end of the course. If you alert us a problem for the first time on the feedback form at the end of the course the we have not had the opportunity to put it right.

If this course is being held at your company's site, much of this will not apply or will be outside our control.

Course delivery



Lecture material



Course workbooks



Questions and exercises

*Hear and Forget
See and Remember
Do and Understand*



Practical sessions

4

The course will be made up of lecture material coupled with the course workbook, informal questions and exercises, and structured practical sessions. Together, these different teaching techniques will help you to absorb and understand the material in the most effective way.

The course notebooks contain all the overhead slides that will be shown, so you do not need to copy them. In addition, there are extra textual comments (like these) below the slides, which are there to amplify the slides, provide further information. Hopefully these notes mean you will not need to write too much and can listen and observe during the lectures. There is, however, space to make your own annotations too.

In the practical exercise sessions, you will be given the opportunity to experiment and consolidate what has been taught during the lecture sessions. Please, please tell the instructor if you are having difficulty in these sessions. It is sometimes difficult to see that someone is struggling, so please be direct.

The training experience

- **A course should be**
 - A two-way process
 - A group process
 - An individual experience



5

The best courses are not those in which the instructor spends all his or her time pontificating at the front of the class. Things get more interesting if there is dialogue, so please feel free to make comments or ask questions. At the same time, the instructor has to think of the whole group, so if you have many queries, he or she may ask to deal with them off-line.

Work with other people during practical exercise sessions. The person next to you may have the answer, or you may know the remedy for them. Obviously do not simply 'copy from' or 'jump-in on' your neighbour but group collaboration can help with the enjoyment of a course.

We are also individuals. We work at different paces and may have special interests in particular topics. The aim of the course is to provide a broad picture for all. Do not be dismayed if you do not appear to complete exercises as fast as the next person. The practical exercises are there to give plenty of practical opportunities; they do not have to be finished and you may even choose to focus for a long period on the topic that most interests you. Indeed there will be parts labelled 'if time allows' that you may wish to save until later to give yourself time to read and absorb the course notes. If you have finished early, there is a great deal to investigate. Such "hacking" time is valuable. You may not get the opportunity to do it back in the office!

Course Outline

- **Introduction to Java and Eclipse**
 - Installing the software
- **Primitives**
- **Control Flow**
- **Introduction to Objects**
- **Documentation**
- **Inheritance**
- **Collections**
- **Error Handling**
- **GUIs and Swing**
- **Java Applets and Web Applications**
- **Functional Programming**
- **Packaging it all up**

Course Objectives

- **By the end of this course you should be able to**
 - Install and setup java and Eclipse IDE
 - Write programs and run them from both the command line and the IDE
 - Understand the basics of java programming
 - Creating objects and methods
 - Control flow within methods
 - Manipulating data
 - Access control
 - Write several programs starting from the very simple command line programs through to full GUI applications
 - Have a look at web applications using J2EE and java applets
 - Have a look at functional programming in java using Java 8
 - Packaging up java files to use as executables, or deploying onto web servers

Assumptions

- **This course assumes**
 - No previous knowledge required!
 - You are interested in learning to program in Java and use eclipse

Introductions

- **Who are you?**
- **What are your experiences?**
 - Have you programmed before
 - Which languages?
 - What do you want to get out of this course?

Any questions?

- **Golden Rule**
 - “There is no such thing as a stupid question”
- **First amendment to the Golden Rule**
 - “...even when asked by an instructor”
- **Corollary to the Golden Rule**
 - “A question never resides in a single mind”

10

Please feel free to ask questions.

Teaching is a much more enjoyable and productive process if it is interactive. You will no doubt think of questions during the course; if so, ask them!

Exercise

- Find the exercises
- Find coffee