

Course: Using Java for Network Programming

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Structure of presentation

- Recommended books
- Objectives and Prerequisites of the course
- Course Layout
- Subjects
- Sample exercises

Recommended books

- Deitel, Harvey: *Java How to Program*, Prentice-Hall, 1998
- Elliotte R. Harold: *Java Network Programming*, O'Reilly, 1997
- Courtois, Todd : *Java Networking and Communications*, Prentice-Hall, 1998
- Jim Farley: *Java Distributed Computing*, O'Reilly, 1998

Objectives

- Describe the fundamental concepts of TCP/IP networking in Java.
- Program sockets and streams in Java.
- Develop TCP/IP server applications.
- Develop client-server networking applications.
- Develop distributed applications using Java RMI.

Prerequisites

- Java programming fundamentals
- Optional Java development environment knowledge

- Object-oriented programming terminology and concepts
- Essential networking terminology and concepts

Course layout

- The course covers 6 subjects and 21 exercises
- Each subject involves
 - The specification of prerequisites
 - Possible tools in Java
 - Sample exercise with given solution
 - Further exercises to develop programming practice

Subjects

- A)** Working with Internet addresses and DNS names
- B)** Writing connection-oriented clients
- C)** Writing connection-oriented server application
- D)** Writing connection-oriented client-server application
- E)** Connectionless communication in Java
- F)** Using Java Remote Method Invocation