



Basic Java Programming

40 hours

Course Overview:

This Java course will provide you with a strong understanding of basic Java programming elements and data abstraction using problem representation and the object-oriented framework. You will learn to write procedural programs using variables, arrays, control statements, loops, recursion, data abstraction and objects in an integrated development environment.

Who Should Attend:

The course addresses people with no background in programming, that wish to get to know this world through the Java language. That said, the course may also be useful for those who has some background with programming, but are looking for easy starting with Java.

Required Skills:

No prior Object Oriented Programming experience and knowledge is assumed or needed.

Course Contents:

- Introduction – Get to know the Java framework and it's components
- Programming Basics and Fundamentals
 - Understand programming principles, variables, flow control, control structures
- More advanced data structures
 - Arrays
- Introduction to Object Oriented Programming
 - Classes
 - Objects
- Methods
 - Motivation, Definition, Calling
 - Usage of methods in Object Oriented Programming
 - Method Overloading
- Inheritance
 - Motivation and Implementation
 - Method Overriding
- Abstract and Interface
 - Conceptual Overview
 - Implementations
- Polymorphism
 - Compile time vs. Runtime Polymorphism
 - The use of Abstract Classes and Interfaces in a polymorphic environment
- Exceptions
 - Introduction to the Exceptions Mechanism
 - Handling Exceptions
- Collections
 - Introduction to the Collections Framework
 - Advanced Data Structures
 - Algorithms
- IOStreams
- Serialization