

Java Programming Language

Lecture 1.

Introduction

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General Information

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Books

- **Basic:**
- **Julie Anderson, Hervé Franceschi**, Java Illuminated: An Active Learning Approach, 3rd Edition

- **Supplementary:**
- **H. M. Deitel - Deitel & Associates, Inc., P. J. Deitel - Deitel & Associates, Inc.**, Java™ How to Program, Sixth Edition
- **Cay S. Horstmann, Gary Cornell**, Core Java™ 2 Volume I - Fundamentals, Seventh Edition

What is the idea of the course?

The course is based on the JAVA SE

To obtain the basic knowledge of the JAVA concepts

Motivation

To be familiar with JAVA and understand what do you really like to do.

Evolution of programming languages

Machine code

Assembler

High-Level languages

```
mov     dl,[cs:BufSize]
cld
PrintLoop:
mov     si,cs:BufSize
inc     si
mov     ah,2
int     21h
cmp     si,cs:BufSize
jne     @@NotAtEnd
xor     si,si
@@NotAtEnd:
mov     si,[cs:Head]
@@PrintLoop:
mov     dx,si
int     21h
inc     si
cmp     si,cs:BufSize
jne     @@PrintLoop
```



Integrated Development Environment (IDE)
combines editor and compiler

Translator (translation into another language):

- Compiler – translates, then execute
- Interpreter – translates + executes

Introduction to OOP

is a programming paradigm based on the concept of "objects", which are data structures that contain data, in the form of fields, often known as attributes; and code, in the form of procedures, often known as methods.

Main concepts: class and object

- Abstraction
- Inheritance
- Encapsulation
- Polymorphism



