

Object-Oriented using Java

Course Introduction

Why should you study Java?

- Top ten common programming languages:

Jan 2016	Jan 2015	Change	Programming Language	Ratings	Change
1	2	⬆	Java	21.465%	+5.94%
2	1	⬇	C	16.036%	-0.67%
3	4	⬆	C++	6.914%	+0.21%
4	5	⬆	C#	4.707%	-0.34%
5	8	⬆	Python	3.854%	+1.24%
6	6		PHP	2.706%	-1.08%
7	16	⬆	Visual Basic .NET	2.582%	+1.51%

From <http://www.tiobe.com/index.php/content/paperinfo/tpci/index.html>

Why Java?

- Java Is Architecture Neutral.
- Java Provides “One-Stop Shopping”.
- Java Is Object-Oriented from the Ground Up.
- Practice Makes Perfect.
- Java Is an Open Standard.
- Java Is Free!

Course Overview

- **Prerequisite:**
 - Programming Fundamentals Using C

Course objectives

- Make you comfortable with fundamental object-oriented (OO) terminology and concepts.
- Getting to know the “World of Java”.
- Understand the implementation of a Java Application.
- Understand the roles of java built-in packages.

Contents

- Introduction
- Foundations
- Encapsulation
- Inheritance
- Polymorphism
- Array of Objects
- Collections in Java

Resources

- **Tool**

- NetBean IDE 8.x
- JDK8

- **Text book**

- textbook on LMS
- <http://docs.oracle.com/javase/tutorial/>
- <http://www.oracle.com/technetwork/java/javase/documentation/jdk8-doc-downloads-2133158.html>






Download & Install JDK & NetBeans 8

<http://www.oracle.com/technetwork/java/javase/downloads/jdk-netbeans-jsp-142931.html>

You must accept the **JDK 8u45 and NetBeans 8.0.2 Cobundle License Agreement** to download this software.

☒ **Accept License Agreement** ☐ Decline License Agreement

Java SE and NetBeans Cobundle (JDK 8u45 and NB 8.0.2)

Product / File Description	File Size	Download
Linux x86	258.45 MB	 jdk-8u45-nb-8_0_2-linux-i586.sh
Linux x64	254.77 MB	 jdk-8u45-nb-8_0_2-linux-x64.sh
Mac OS X x64	326.61 MB	 jdk-8u45-nb-8_0_2-macosx-x64.dmg
Windows x86	280.82 MB	 jdk-8u45-nb-8_0_2-windows-i586.exe
Windows x64	286.17 MB	 jdk-8u45-nb-8_0_2-windows-x64.exe

Course Plan

See course plan on LMS

Course Requirements

- Following lessons in classroom
- Reading textbook and documents at home
- Completing chapter assessment in time
- Discussing actively in your teams and in classroom

Assessment Scheme

- 06 Labs (10%)
- 01 Assignment (20%)
- 02 Progress test (10%)
- 01 Practical Exam (30%)
- Final Exam (30%)

Academic policy

Cheating, plagiarism and breach of copyright are serious offenses under this Policy.

- **Cheating**

Cheating during a test or exam is construed as talking, peeking at another student's paper or any other clandestine method of transmitting information.

- **Plagiarism**

Plagiarism is using the work of others without citing it; that is, holding the work of others out as your own work.

- **Breach of Copyright**

If you photocopy a textbook without the copyright holder's permission, you violate copyright law.

Enjoy the course

Be enthusiastic about the material because it is interesting, useful and an important part of your training as a software engineer. Our job is to help you learn and enjoy the experience. *We will do our best but we need your help.* So let's all have fun together with Object-Oriented Paradigm using Java.

Q&A