

Java Programming I

Introduction

Administration

- ◆ Course home page:

<http://web-int.u-aizu.ac.jp/~vkluev/courses/javaone/>

- ◆ Instructors:

- Prof. Vitaly Klyuev
 - E-mail: vkluev@u-aizu.ac.jp
- Associate Prof. Yuichi Yaguchi
 - E-mail: yaguchi@u-aizu.ac.jp
- Senior Associate Prof. Mohamed Hamada
 - E-mail: hamada@u-aizu.ac.jp

- ◆ Class materials and assignments will be put on the Web every Friday

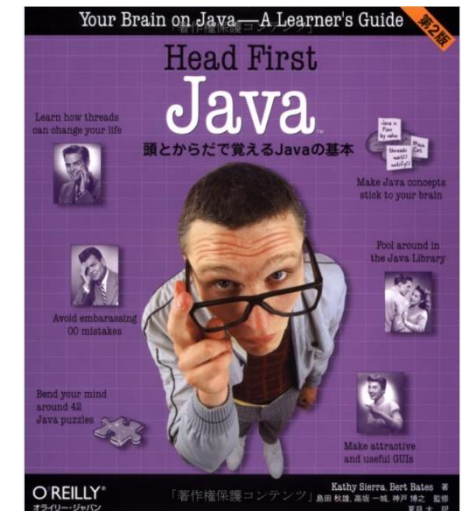
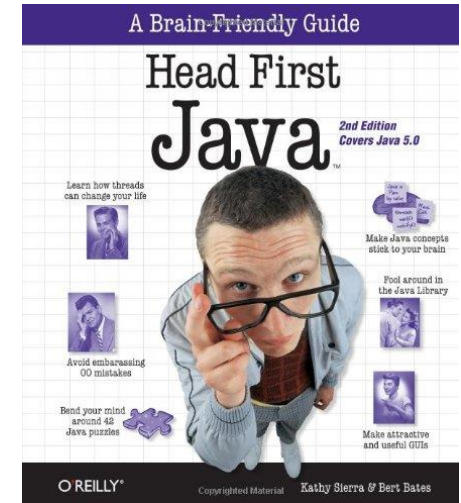
- ◆ Please print them and take to our class

- ◆ Basic for grades:

- Assignments 50%,
- Quizzes during lectures 15%,
- Final examination 35%.

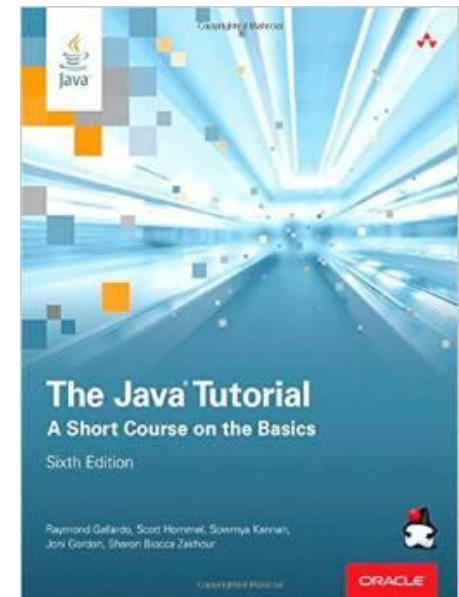
Literature

- ◆ Head First Java, 2nd Edition, by Kathy Sierra and Bert Bates, O'REILLY, 2005.
- ◆ Head First Java 第2版 一頭とからだで覚えるJavaの基本 大型本 by Kathy Sierra, et al., 2006.



Literature

- ◆ Javaチュートリアル 第4版 (The Java Series) 単行本 – November, 2007.
- ◆ The Java Tutorial: A Short Course on the Basics (6th Edition) (Java Series) by R. Gallardo, et al., 2014.
 - Electronic version:
<http://docs.oracle.com/javase/tutorial/>



Online Documentation

- ◆ Java provides online documentation for the whole environment:
 - How to compile and execute programs;
 - JDK (Java Development Kit) classes and their methods;
 - Many example programs;
 - Many documents that address different topics in Java.

Java Tutorials

<http://www.oracle.com/technetwork/java/javase/java-tutorial-downloads-2005894.html>

The screenshot displays the Oracle Java SE Tutorial Downloads page. The sidebar on the left contains a list of links: Java SE, Java EE, Java ME, Java SE Support, Java SE Advanced & Suite, Java Embedded, Java DB, Web Tier, Java Card, Java TV, New to Java, Community, and Java Magazine. The main content area is titled 'Java SE Tutorial Downloads' and features two sections for downloading the tutorial. Each section includes a license agreement checkbox and a table of download links.

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The Java Tutorial
A Short Course on the Basics
Sixth Edition
Raymond Gellards, Scott Hennen, Srinivas Kethan,
Jon Gordon, Sheryl Brossa Zashour
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Java Code Examples

<http://www.headfirstlabs.com/books/hfjava/>

Head First Labs from O'Rei... x +

www.headfirstlabs.com/books/hfjava/ Search

Most Visited Getting Started Suggested Sites Web Slice Gallery

we cover them in depth. But we save them for the end of the book (chapter 17). Relax while you ease into Java, gently.

Code and Downloads

Get a zip file of all the code in the book [here](#), or get it by chapter:

- [Chapter 1](#), Breaking the Surface
- [Chapter 2](#), A Trip to Objectville
- [Chapter 3](#), Know Your Variables
- [Chapter 4](#), How Objects Behave
- [Chapter 5](#), Extra-Strength Methods
- [Chapter 6](#), Using the Java Library
- [Chapter 7](#), Better Living in Objectville
- [Chapter 8](#), Serious Polymorphism
- [Chapter 9](#), Life and Death of an Object
- [Chapter 10](#), Numbers Matter
- [Chapter 11](#), Risky Behavior
- [Chapter 12](#), A Very Graphic Story
- [Chapter 13](#), Work on Your Swing
- [Chapter 14](#), Saving Objects
- [Chapter 15](#), Make a Connection
- [Chapter 16](#), Data Structures
- [Chapter 18](#), Distributed Computing
- [Appendix A](#)

A Brain-Friendly Guide

Head First Java™

2nd Edition
Covers Java 5.0

Learn how threads can change your life

Make Java concepts stick to your brain

Pool around in the Java Library

Avoid embarrassing OO mistakes

Feed your mind around 42 Java puzzles

Make attractive and useful GUIs

O'REILLY® Copyrighted Material Kathy Sierra & Bert Bates

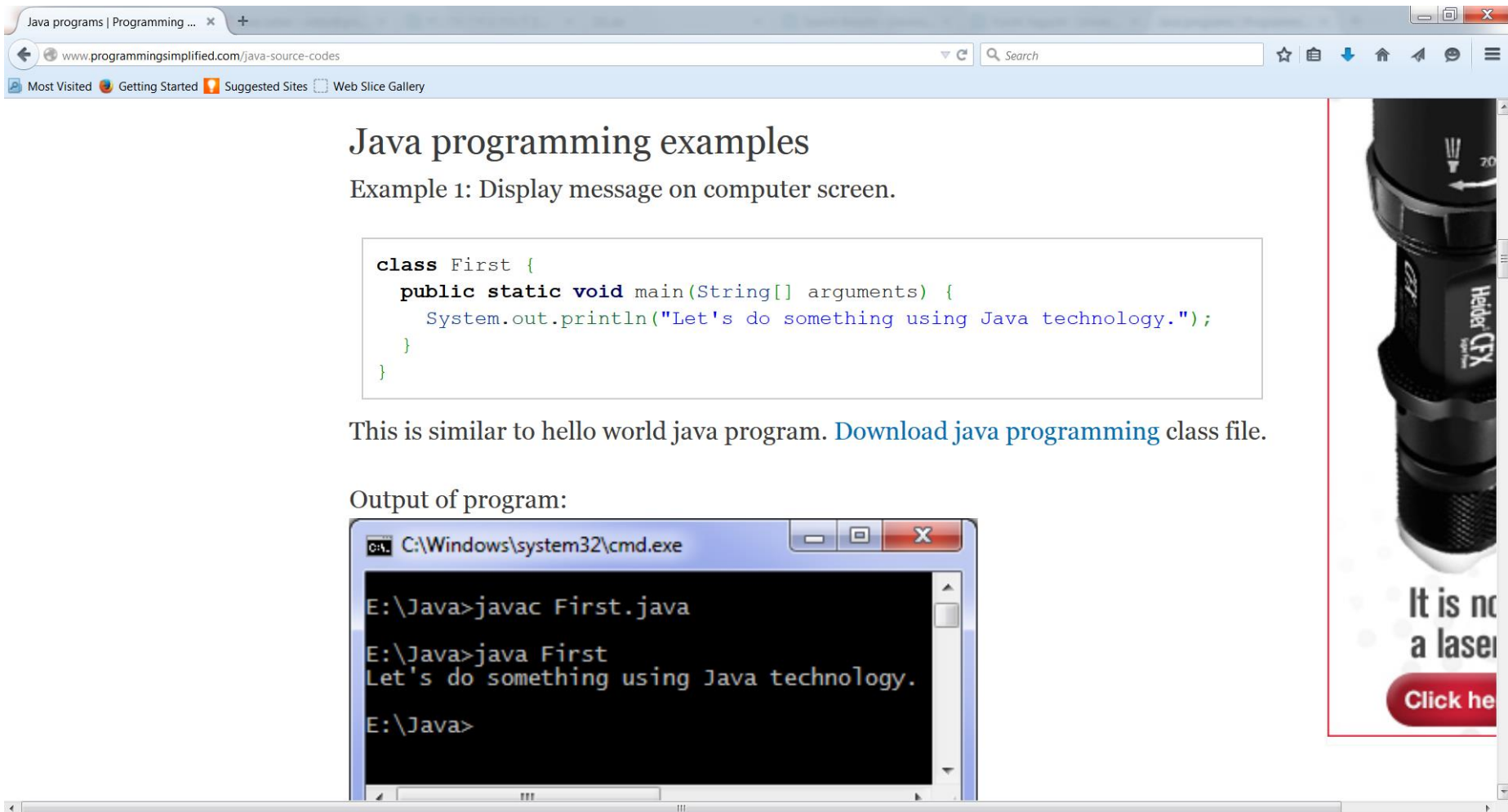
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Java Code Examples

<http://www.programmingsimplified.com/java-source-codes>



Java programs | Programming ... x +

www.programmingsimplified.com/java-source-codes

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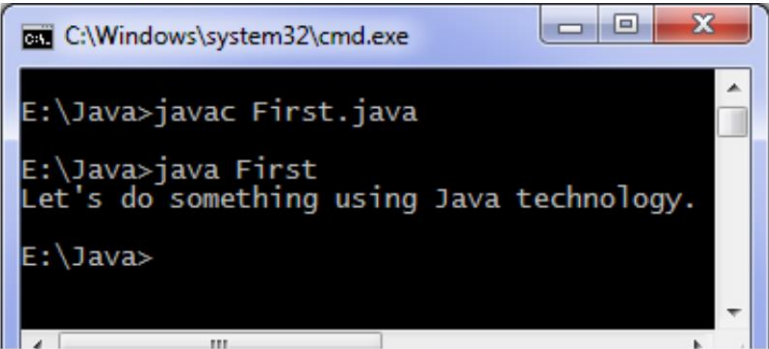
Java programming examples

Example 1: Display message on computer screen.

```
class First {  
    public static void main(String[] arguments) {  
        System.out.println("Let's do something using Java technology.");  
    }  
}
```

This is similar to hello world java program. [Download java programming](#) class file.

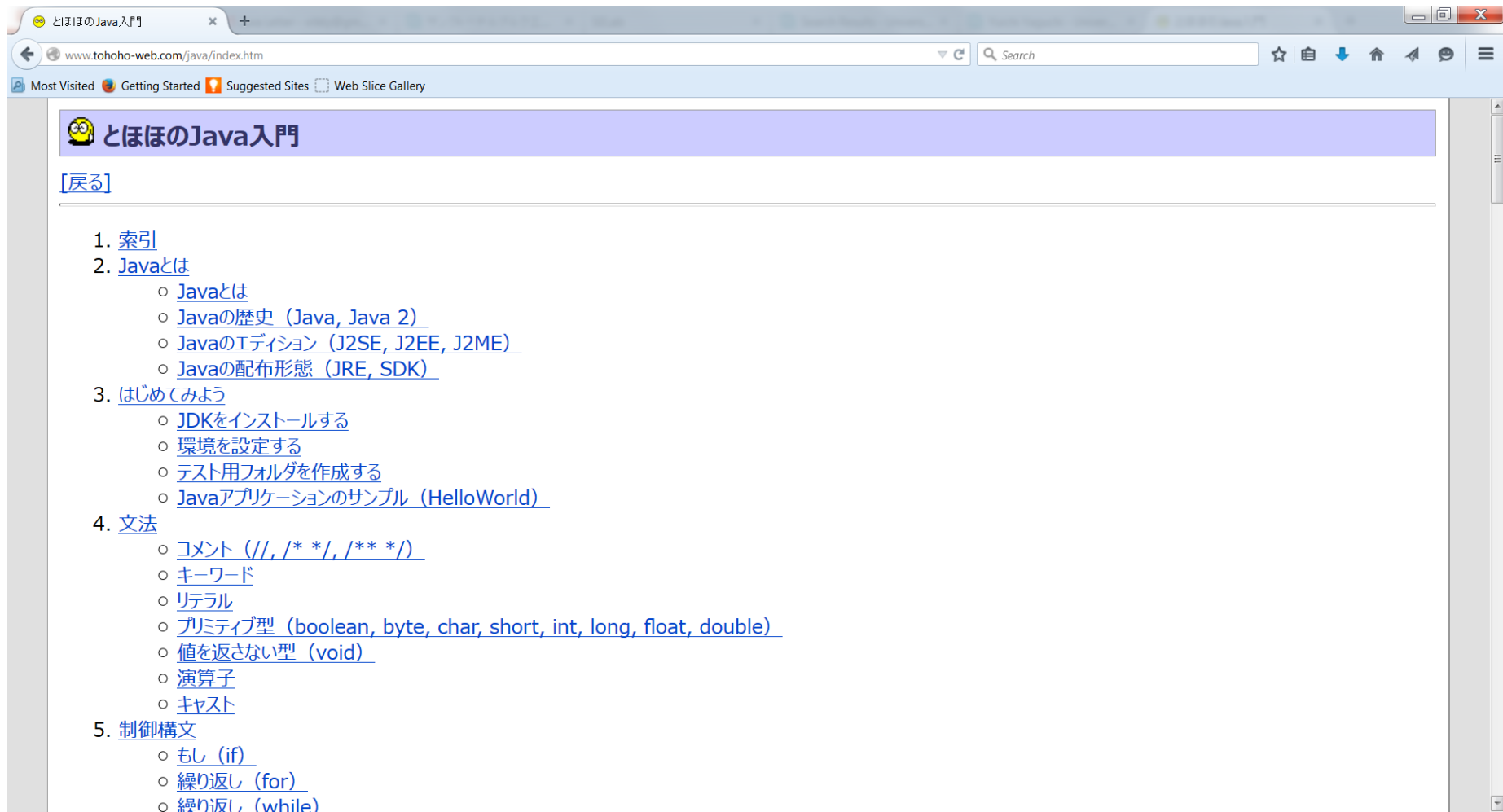
Output of program:



```
C:\Windows\system32\cmd.exe  
E:\Java>javac First.java  
E:\Java>java First  
Let's do something using Java technology.  
E:\Java>
```


Java on-line resource in Japanese

<http://www.tohoho-web.com/java/index.htm>



とほほのJava入門

[\[戻る\]](#)

1. [索引](#)
2. [Javaとは](#)
 - [Javaとは](#)
 - [Javaの歴史 \(Java, Java 2\)](#)
 - [Javaのエディション \(J2SE, J2EE, J2ME\)](#)
 - [Javaの配布形態 \(JRE, SDK\)](#)
3. [はじめてみよう](#)
 - [JDKをインストールする](#)
 - [環境を設定する](#)
 - [テスト用フォルダを作成する](#)
 - [Javaアプリケーションのサンプル \(HelloWorld\)](#)
4. [文法](#)
 - [コメント \(//, /* */, /** */\)](#)
 - [キーワード](#)
 - [リテラル](#)
 - [プリミティブ型 \(boolean, byte, char, short, int, long, float, double\)](#)
 - [値を返さない型 \(void\)](#)
 - [演算子](#)
 - [キャスト](#)
5. [制御構文](#)
 - [もし \(if\)](#)
 - [繰り返し \(for\)](#)
 - [繰り返し \(while\)](#)

Java API

(Application Programming Interface)

<http://docs.oracle.com/javase/jp/8/docs/api/>

The screenshot shows the Java API documentation website for Java Platform, Standard Edition 8. The browser address bar displays docs.oracle.com/javase/jp/8/docs/api/. The page title is "Java(tm) Platform, Standard Edition 8". The main content area is titled "Java(tm) Platform, Standard Edition 8 API仕様" (Java Platform, Standard Edition 8 API Specification). Below the title, it states: "このドキュメントはJava(tm) Platform, Standard EditionのAPI仕様です。" (This document is the API specification for Java Platform, Standard Edition). A section titled "プロファイル" (Profiles) lists three profiles: compact1, compact2, and compact3. A section titled "パッケージ" (Packages) lists several packages, including java.applet, java.awt, and java.awt.color. The left sidebar contains a navigation menu with links to "すべてのクラス" (All Classes) and "すべてのプロファイル" (All Profiles). The right sidebar contains a search bar and a list of links: "概要" (Overview), "パッケージ" (Packages), "クラス" (Classes), "使用" (Usage), "階層ツリー" (Hierarchy Tree), "非推奨" (Deprecated), "索引" (Index), and "ヘルプ" (Help).

Overview (Java Platform SE...) +

docs.oracle.com/javase/jp/8/docs/api/

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Java(tm) Platform Standard Edition 8

概要 パッケージ クラス 使用 階層ツリー 非推奨 索引 ヘルプ

前次 フレーム フレームなし

Java(tm) Platform, Standard Edition 8 API仕様

このドキュメントはJava(tm) Platform, Standard EditionのAPI仕様です。

参照: 説明

プロファイル

- compact1
- compact2
- compact3

パッケージ

パッケージ	説明
java.applet	アプレットを作成するために必要なクラス、およびアプレットがそのアプレット・コンテキストとのやり取りに使用するクラスを提供します。
java.awt	ユーザー・インタフェースの作成およびグラフィックスとイメージのペイント用のすべてのクラスを含みます。
java.awt.color	カラー・スペースのクラスを提供します。

Jeliot

Jeliot is a system for animating programs in Java. It will help you understand how your code is executed.

<http://cs.joensuu.fi/jeliot/index.php>

A screenshot of a web browser displaying the Jeliot 3 website. The browser's address bar shows the URL 'cs.joensuu.fi/jeliot/index.php'. The website has a dark blue header with 'Jeliot 3' in white text. Below the header, there's a navigation menu with links to 'Home', 'Downloads', 'Description', 'Documentation', and 'FAQ'. A sidebar on the left contains links to 'Java Course (LOV)', 'BlueJ extension', 'Jeliot Web Start', 'JeCo', 'Editing Java Easily', 'Available projects', 'Publications', and 'People'. The main content area has a 'Welcome' section with a paragraph about starting to use Jeliot 3, followed by a 'News' section dated '4th March 2014' mentioning a presentation at SIGCSE and an updated publication list. A logo for 'J3' is visible in the top right corner of the website content.

Jeliot 3

Eliot, [Jeliot I](#) and [Jeliot 2000](#)

SITE NAVIGATION

- » [Home](#)
- » [Downloads](#)
- » [Description](#)
- » [Documentation](#)
- » [FAQ](#)

» [Java Course \(LOV\)](#)

» [BlueJ extension](#)

» [Jeliot Web Start](#)

» [JeCo](#)

» [Editing Java Easily](#)

» [Available projects](#)

» [Publications](#)

» [People](#)

Welcome

To quickly start using Jeliot 3 just click on one of the buttons below (you can explore other installing options in the [Downloads](#) section):

News

4th March 2014

Jeliot 3 is present at SIGCSE. Andrés will be presenting his research in Conflictive Animations and Jeliot ConAn. Also, the [publication list](#) has been updated.

J3

How to study course materials

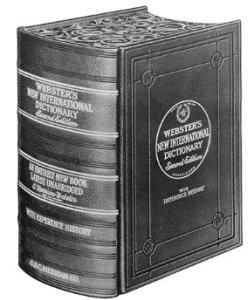
1. Read lecture slides (understand ALL examples);
2. Run examples from the lectures using *Jeliot*
http://web-int.u-aizu.ac.jp/~yaguchi/courses/Java1/2016/sp_care_01.html
3. Read the corresponding chapters in the text book;
4. Study a Special Care Sets on the course Webpage;
5. Work on exercises.

How to work on exercises

- ◆ Read problem descriptions very carefully:
You MUST read ALL sentences.

- ◆ To understand content, you may use
 - paper-based dictionaries;
 - electronic dictionaries;
 - Web-based dictionaries

—<http://www.alc.co.jp/>



How to work on exercises

◆ NEVER use translation systems such as google translate!



- They NEVER will translate the details of the description;
- In software development, details are very much important!
- A Japanese description, obtained as the result of translation by a translation systems, specifies a different problem, not the problem you should solve!

How to work on exercises

- ◆ Go back to the lecture examples to find the analogies between them and the problem you should solve:
 - Make the bridges between them in your brain.
- ◆ When code is prepared, analyze the results produced by your code to make sure that they are correct.
- ◆ Following these instructions, you become **INDEPENDENT!**



Requirements for the Lectures

- ◆ Please print out the slides BEFORE every lecture:
 - <http://web-int.u-aizu.ac.jp/~vkluev/courses/javaone>
- ◆ There will be a quiz at EVERY lecture (to answer the questions, you have to have the lecture slides)
- ◆ Quiz sheets will be available ONLY at the lecture time. It is not allowed to get the quiz questions after the lecture.
- ◆ Quiz sheets will be collected at the end of the class: One student can submit only one sheet.

How to get credits for the exercises

- ◆ To get credits for your solution, you should
 - show your TA or your instructor how your programs work;
 - answer their questions;
 - submit your source code to your instructor.



Exercise grading policy

- ◆ The penalty for the late submissions is 30% of points for each problem;
- ◆ Late submissions are acceptable within two weeks after the deadline;
- ◆ Three weeks or later after the deadline, the score for the late submission is zero.

