|  |
| --- |
| **Page 1** |

The four basic pillars of the training are as follows.

java language

Understanding basic grammar

• •

Coding ability at a level where you can write code while listening to people

• •

DB / SQL

Basic understanding of databases

• •

Basic syntax of DDL / DML

• •

A level of SQL coding ability that can obtain the result of table join

• •

Write and remember with a SQL writing drill

• •

Web (Servlet / JSP, SpringBoot)

Understanding the basics of http (GET / POST, URL parameters)

• •

HTML basics (level at which input forms can be created)

• •

Understanding the processing flow on the server side, coding ability at a level where you can write code while listening to people

• •

javascipt language (jQuery)

Understanding basic grammar

• •

GET / POST ajax communication processing using jQuery

• •

Understanding json format

• •

Development environment construction

Day 1 Orientation / Version Control

Introduce yourself

Contents of self-introduction

• •

Name / age / appeal points (if any)

• •

Why did you decide to become an engineer (member of society)?

• •

What kind of engineer (worker) do you want to be?

• •

What I value most

• •

Explanation of curriculum and explanation of how to proceed

• •

Reconfirm Zoom connection

• •

Training curriculum

Page 1/10

Last updated: 2021/03/30 13:29

|  |
| --- |
| **Page 2** |

About git

What is git

• •

Try to clone

• •

try add / commit

• •

Try to push

• •

Structured programming (sequential / branching / iterative)

the 2nd day

Executing Java programs using the console

• •

How to use Intellj

• •

Lesson01 Main method and other methods

• •

Thoroughly explain the case of class names

• •

Lesson02 Escape sequence

• •

Lesson03 Special characters Line breaks / tab characters

• •

Lesson04 How to output to the console print / println

• •

Confirmation / Exercise (Question 01)

• •

Third day

Lesson05 Try to calculate

• •

Lesson06 String addition (string concatenation)

• •

Lesson07 Knowing and using variables

• •

Lesson08 Various types

• •

[https://docs.oracle.com/javase/tutorial/java/nutsandbolts/datatypes.html](https://translate.google.com/translate?hl=en&prev=_t&sl=auto&tl=en&u=https://docs.oracle.com/javase/tutorial/java/nutsandbolts/datatypes.html)

• •

Confirmation / Exercise (Question 02)

• •

Day 4

Lesson09 IF statement

• •

Lesson10 IF-ELSE statement

• •

Lesson11 Various conditional expressions

• •

Lesson12 IF-ELSE IF-ELSE

• •

Lesson13 Conditional expressions AND and OR

• •

Day 5

Lesson14 Special usage of boolean type

• •

Training curriculum

Page 2/10

Last updated: 2021/03/30 13:29

|  |
| --- |
| **Page 3** |

Lesson15 ternary operator

• •

Lesson16 Switch-case statement

• •

Confirmation / Exercise (Question 03)

• •

Day 6

Lesson17 array

• •

Lesson18 Try making various arrays

• •

Lesson19 When the sequence index is incorrect

• •

Lesson20 Multidimensional array

• •

Confirmation / Exercise (Question 04)

• •

Day 7

Lesson21 Replication (Replication)

• •

Lesson22 Infinite repetition

• •

Lesson23 Extended For Statement (Foreach Statement)

• •

Lesson24 Loop processing is terminated halfway and excluded

• •

Lesson25 While Statement

• •

8th day

Lesson26 Constant

• •

Confirmation / Exercise (Question 05)

• •

Java programming basics

What is java

java history

About current java

About java version

Day 9

Lesson27 method (method name / argument / return value)

• •

Thorough case of method name

• •

The idea of ​​XX of XX

• •

Confirmation / Exercise (Question 06)

• •

Lesson28 Variable Scope Class Variables

• •

Day 10

Lesson29 Refer to another class

• •

Lesson30 method overload

• •

Training curriculum

Page 3/10

Last updated: 2021/03/30 13:29

|  |
| --- |
| **Page 4** |

Confirmation / Exercise (Question 07)

• •

Day 11

Lesson31 Package ・ import / static import statement

• •

Lesson32 What is good code and what is good comment?

• •

Lesson33 class instance

• •

Lesson34 constructor

• •

12th day

Lesson35 Reference type, value type and null

• •

Confirmation / Exercise (Question 08)

• •

Lesson36 Inheritance (encapsulation)

• •

13th day

Lesson37 Inheritance (extends, protected)

• •

Lesson38 Override

• •

Confirmation / Exercise (Question 09)

• •

14th day

Lesson39 Abstract class method

• •

Lesson40 Polymorphism

• •

Lesson41 interface

• •

Day 15

Exercise (inheritance / interface)

• •

Java library (jdk / external)

16th day

Lesson42 List and generics

• •

Lesson43 Primitive and wrapper types, autoboxing and unboxing

• •

Lesson44 Set

• •

Confirmation / Exercise (Question 10)

• •

Training curriculum

Page 4/10

Last updated: 2021/03/30 13:29

|  |
| --- |
| **Page 5** |

Day 17

Lesson45 Map

• •

Lesson46 String Concatenation (StringBuffer / StringBuilder)

• •

Lesson47 Input / output (keyboard)

• •

Lesson48 Input / output (file)

• •

Day 18

Lesson49 Try using an external library (Logger)

• •

Lesson50 Date / Time

• •

Lesson51 enum

• •

Confirmation / Exercise (Question 11)

• •

Java exception

Day 19

Lesson52 exception

• •

Lesson53 try-catch statement

• •

Lesson54 try-catch-finally statement

• •

Lesson55 throws

• •

20th day

Lesson56 try-with-resource statement

• •

Lesson57 multi-catch statement

• •

Lesson58 Checked and unchecked exceptions

• •

Confirmation / Exercise (Question 12)

• •

Unit test

21st day

What is a unit test

• •

About JUnit

• •

Unit test concept

• •

Try pair pro

• •

Comprehensive exercise

Training curriculum

Page 5/10

Last updated: 2021/03/30 13:29

|  |
| --- |
| **Page 6** |

22nd day

Java Basic Exercise

• •

Database / SQL (prerequisite information for self-study using SQL writing drill)

23rd day

What is a database?

• •

What is a schema / table / column?

• •

Attribute value (PK / NotNull / AUTO\_INCREMENT (MySQL))

• •

What is SQL

• •

What is DDL

• •

What is DML

• •

Create / delete table

• •

Add record

• •

What is an ID

• •

24th day

Basic usage of SQL (SELECT / INSERT / UPDATE / DELETE)

• •

How to handle multiple tables

• •

About Relation

• •

What is FK

• •

Join table

• •

join

• •

25th day

Transactions using the console

• •

begin / commit / rollback

• •

ISOLATION\_LEVEL

• •

What is Index

• •

Web (Servlet / JSP / Tomcat)

26th day

About http

• •

Training curriculum

Page 6/10

Last updated: 2021/03/30 13:29

|  |
| --- |
| **Page 7** |

Elements that make up the web (html / css / js)

• •

What is a web application

• •

Web application training (using Servlet / JSP / Tomcat)

• •

Display screen

• •

Receive what you entered from the screen on the server

• •

The server receives the input from the screen, processes it, and returns it.

• •

27th day

Web application training

• •

What is a character code?

• •

What is a context path

• •

What is GET / POST?

• •

What is Filter

• •

Screen transition

• •

Session / Cookie

• •

Servlet Lifecycle

• •

Java Application (JDBC)

28th day

Lesson59 JDBC Basics (Search)

• •

Lesson60 JDBC Basics (Search / Placeholder)

• •

Lesson61 JDBC Basics (Registration / Update / Delete)

• •

Day 29

Lesson62 JDBC Basics (Transaction)

• •

Transaction (commit / rollback)

• •

What are pessimistic and optimistic locks?

• •

Data modeling training

30th day

Design a database from familiar objects

• •

Day 31 Data modeling training

Training curriculum

Page 7/10

Last updated: 2021/03/30 13:29

|  |
| --- |
| **Page 8** |

About ER diagram

• •

Latest Java

[https://plugins.jetbrains.com/plugin/6317-lombok](https://translate.google.com/translate?hl=en&prev=_t&sl=auto&tl=en&u=https://plugins.jetbrains.com/plugin/6317-lombok)

32nd day

Lesson63 method chain

• •

Lesson64 Anonymous class

• •

Lesson65 Stream

• •

Day 33

Lesson66 Lambda expression

• •

Lesson67 Stream + lambda expression + method reference

• •

Lesson68 var

• •

Day 34

Lesson69 Optional

• •

Lesson70 Date / Time API

• •

About the build system (maven / gradle)

• •

Spring Basics (DI / AOP)

Day 35

Register Component in Lesson71 Spring

• •

Register Component in Lesson72 Spring (Scope)

• •

Lesson73 Register Component in Spring (Interface)

• •

Using AOP in Lesson74 Spring (Before / After / Controller Advice)

• •

Lesson75 Lombok (Annotation)

• •

ORMapper basics (Doma2 planned)

[https://doma.readthedocs.io/en/stable/](https://translate.google.com/translate?hl=en&prev=_t&sl=auto&tl=en&u=https://doma.readthedocs.io/en/stable/)

36th day

Lesson76 Database processing using ORMapper

• •

Search

• •

Training curriculum

Page 8/10

Last updated: 2021/03/30 13:29

|  |
| --- |
| **Page 9** |

Registration

• •

update

• •

Delete

• •

SpringBoot (web / thymleaf)

[https://start.spring.io/](https://translate.google.com/translate?hl=en&prev=_t&sl=auto&tl=en&u=https://start.spring.io/)

Day 37

What is Lesson77 Controller?

• •

Lesson78 Basic controller writing / GET access processing

• •

Lesson79 Output method to screen / Model

• •

Lesson80 Output method to screen / Model (multiple)

• •

Lesson81 How to receive from the screen / Form

• •

Lesson82 How to receive and output from the screen

• •

38th day

Lesson83 Screen Form and Form class binding

• •

Lesson84 Validation of screen Form and Form class

• •

Lesson85 How to get URL parameters

• •

How to store Lesson86 Form in Session

• •

javascript

Day 39

Lesson87 javascript basics (variables, functions, associative arrays)

• •

Lesson88 About ajax communication (Promiss) / json using jQuery

• •

Graduation test

40th day

The following tests will be conducted. If you do not reach the passing score, you will be reviewed and then retested.

Read and understand the code and respond to the processing results

• •

Read and understand the question sentence and create the correct code

• •

The following is from the 41st day onward, but it may change depending on the progress of learning.

Training curriculum

Page 9/10

Last updated: 2021/03/30 13:29

|  |
| --- |
| **Page 10** |

Practical training after the 41st day

Ask the trainee to create the application service that he / she wants to create.

Creation task decision

If there is something that the training participants want to create, decide the task considering whether it is realistically possible.

If you do not want to create it, you will be asked to select from the prepared assignments.

Examination / task allocation

All participants in the training will do it.

We will carry out implementation methods, preliminary surveys, etc. for the decided issues, and drop them on a task basis.

UI design

All participants in the training will do it.

Paper-based screen design

• •

Ask them to think about necessary items and interactions

• •

DB design

All participants in the training will do it.

DB design on paper

• •

Ask them to think about the required table / column structure

• •

Make a drop in the ER diagram.

• •

Implementation

Implement functions and create unit tests by yourself

• •

Commit all the code you create and do some code reviews

• •

Training curriculum

Page 10/10

Last updated: 2021/03/30 13:29