

This is a 24-week course.

Core Java (Week 1–5)

Review all the code, create small projects(Week 6)

JDBC(Week 7)

Servlets and JSP (Week 8)

Maven (Week 9)

Hibernate (Week 10–11)

Spring Framework (Week 13)

Spring Boot (Week 14)

Spring Data JPA (Week 15)

Spring MVC (Week 16)

Spring AOP (Week 17)

Spring REST (Week 18)

Spring Security (Week 19)

Docker (Week 21)

Cloud Deployment (Week 22)

Microservices (Week 23–24)

#### 1. Practical Work (20 minutes)

Use the remaining 20 minutes for hands-on coding exercises or practical applications related to the day's topic. This can involve writing code, debugging, or working through small projects.

#### 2. Friday Flexibility

Utilize Fridays for review, deeper practice, or catching up on content if needed. This could mean focusing more on practical work or revisiting complex topics from the video.

Show less

@brianlevi4964 7 months ago

### Basic Java Concepts:

- [00:13:21](#) First code in java
- [00:24:35](#) How Java Works
- [00:36:34](#) Variables in java
- [00:48:11](#) Data types in java
- [01:00:28](#) Literal
- [01:04:49](#) Type conversion
- [01:17:20](#) Assignment Operators
- [01:27:32](#) Relational Operators
- [01:35:35](#) Logical Operators

### Control Flow:

- [01:46:47](#) If Else
- [01:59:45](#) If Else if
- [02:05:18](#) Ternary
- [02:09:51](#) Switch Statement

### Loops:

- [02:17:50](#) Need For Loop
- [02:21:12](#) While Loop
- [02:33:35](#) Do While Loop
- [02:36:48](#) For Loop
- [02:50:06](#) Which Loop To Use

### Classes and Objects:

- [02:51:48](#) Class And Object Theory
- [02:57:30](#) Class and Object Practical
- [03:13:03](#) JDK JRE JVM
- [03:18:22](#) Methods
- [03:29:44](#) Method Overloading
- [03:35:41](#) Stack And Heap

### Arrays:

- [03:48:12](#) Need of an Array
- [03:52:01](#) Creation of Array
- [03:59:28](#) Multi Dimensional Array
- [04:12:30](#) Jagged and 3D Array
- [04:18:08](#) Drawbacks of Array
- [04:20:54](#) Array of Objects
- [04:29:42](#) Enhanced for loop

### Strings:

- [04:35:07](#) What is String
- [04:42:24](#) Mutable vs Immutable string
- [04:48:43](#) StringBuffer and StringBuilder

### Static Members:

- [04:54:23](#) Static variable
- [05:01:26](#) Static block
- [05:08:43](#) Static method

## Object-Oriented Programming (OOP) Concepts:

- [05:13:25](#) Encapsulation
- [05:25:04](#) Getters and setters
- [05:27:55](#) this keyword
- [05:37:36](#) Constructor
- [05:44:35](#) Default vs Parameterized Constructor
- [05:49:36](#) this and super method
- [06:01:42](#) Naming Convention
- [06:06:08](#) Anonymous Object

## Inheritance:

- [06:10:51](#) Need of Inheritance
- [06:17:06](#) What is Inheritance
- [06:25:50](#) Single and Multilevel Inheritance
- [06:29:41](#) Multiple Inheritance
- [06:36:16](#) Method Overriding

## Packages and Access Modifiers:

- [06:44:05](#) Packages
- [06:56:20](#) Access Modifiers

## Polymorphism:

- [07:04:42](#) Polymorphism
- [07:08:31](#) Dynamic Method Dispatch
- [07:16:29](#) Final keyword
- [07:22:43](#) Object Class equals toString hashCode
- [07:34:41](#) Upcasting and Downcasting
- [07:41:17](#) Abstract keyword

## Inner Classes:

- [07:53:26](#) Inner class
- [07:59:03](#) Anonymous Inner class
- [08:04:11](#) Abstract and Anonymous Inner class

## Interfaces:

- [08:07:22](#) What is Interface
- [08:15:18](#) More on Interfaces
- [08:18:40](#) Need of Interface

## Enum and Annotations:

- [08:27:11](#) What is Enum
- [08:34:04](#) Enum if and switch
- [08:37:59](#) Enum Class
- [08:45:45](#) What is Annotation
- [08:53:14](#) Functional Interface
- [08:56:43](#) Lambda Expression
- [09:02:51](#) Lambda Expression with return
- [09:06:08](#) Types of Interface

## Exception Handling:

- 09:10:41 What is Exception
- 09:15:57 Exception Handling using try-catch
- 09:21:58 Try with multiple catch
- 09:32:14 Exception Hierarchy
- 09:36:30 Exception throw keyword
- 09:42:05 Custom Exception
- 09:45:35 Handling Exceptions using throws
- 09:55:29 User Input using BufferedReader and Scanner
- 10:07:17 Try with resources

## Multithreading:

- 10:15:25 Threads
- 10:20:37 Multiple Threads
- 10:31:58 Thread Priority and Sleep
- 10:39:20 Runnable vs Thread
- 10:47:45 Race Condition
- 11:00:15 Thread states

## Collections:

- 11:03:45 Collection API
- 11:08:30 ArrayList
- 11:20:23 Set
- 11:27:30 Map
- 11:37:32 Comparator vs Comparable

## Advanced Java:

11:53:15 Need of Stream API

12:00:12 forEach Method

12:05:01 Stream API

12:14:09 Map Filter Reduce Sorted

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13:13:08 - JUnit

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16:04:39 - DSA

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16:04:42 DSA Intro

16:11:50 Abstract Data Type

16:19:01 Arrays

16:26:53 Time Complexity

## Searching:

Linear Search - 16:29:25

Binary Search - 16:33:31

Time complexity - 16:40:03

Time complexity for Linear Search - 16:41:48

Time complexity for Binary Search - 16:43:54

16:47:55 Linear Search & Binary Search

Code for Linear Search - 16:49:00

Code for Binary Search(Using While loop) - 16:55:12

Code for Binary Search(Using Recursion) - 17:03:46

Sorting:

17:07:10 Sorting Techniques

Sorting - 17:07:53

Bubble Sort - 17:09:20:

Code for Bubble sort - 17:14:55

17:23:05 Selection Sort:

Code for Selection Sort - 17:30:00

17:37:13 Insertion Sort:

Code for Insertion Sort = 17:44:33

17:57:26 Quick Sort

Example for Quick Sort - 18:04:06(logic) , 18:18:45 (code)

18:25:44 Merge Sort

Example for Merge Sort - 18:35:49(Logic), 18:41:55 (Code)

Linked List:

18:53:18 Linked List

Code for Linked List - 19:06:41

Insert - 19:11:43

Show - 19:19:37

InsertAtStart - 19:27:10

InsertAt - 19:30:12

DeleteAt - 19:38:44

Stack:

19:43:58 Stack

Code for Stack(Fixed size array) - 19:52:58

Push - 19:54:15

Show - 19:57:45

Pop - 19:58:35

Peek - 20:01:10

Size - 20:02:50

IsEmpty - 20:04:08

Code for Stack(Dynamic size array) - 20:09:42

Queue:

20:22:41 Queue

Code for Queue - 20:27:28

Enqueue - 20:28:15

Show - 20:30:02

Dequeue - 20:32:13

Size - 20:42:23

IsEmpty - 20:43:23

IsFull - 20:44:16

Tree:

20:46:55 Tree

Tree - 20:47:05

Binary Tree - 20:49:26

Binary Search Tree - 20:55:06

Code for Binary Search Tree(insert) - 20:56:59

Insert - 20:57:56

Tree Traversal(inOrder) - 21:06:01

Tree Traversal(preOrder) - 21:11:07

20:55:03 Binary Search Tree

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21:11:50 - Git

23:12:20 - JDBC

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24:33:04 - Servlet and JSP

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24:33:14 Servlet

26:11:17 JSP

27:32:19 JSTL

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30:29:58 - Hibernate

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30:29:58 - Introduction to Hibernate

30:32:13 - Prerequisites for Hibernate

30:34:48 - hibernate theory

30:44:32 - Hibernate practical

30:56:29 - How to add Hibernate Plugin in Eclipse

30:58:06 - Configuration File

31:05:21 - Working

31:09:58 - show sql Property

31:13:20 - Annotation

31:18:07 - Fetch data using Hibernate

31:22:39 - How to use Embeddable Object

31:30:31 - Mapping Relations Theory

31:43:35 - Mapping Relations Practical

33:49:37 - Rest API Web Service

33:23:20 - JPA

## 36:24:17 - Spring Framework

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36:16:19 - Introduction to Spring

36:24:20 - Spring

36:26:16 - Spring documentation

36:29:09 - Prerequisites

36:31:21 - Software requirements

36:33:48 - STS Setup

36:39:19 - Dependency Injection in Spring

36:44:56 - Creating spring starter project

36:50:07 - Dependency Injection in Spring Boot

36:55:42 - Spring Boot Autowire

36:59:30 - Bean Factory

37:11:45 - Application Context

37:14:27 - Spring Container

37:20:34 - Singleton vs Prototype

37:23:31 - Setter Injection

37:32:11 - constructor Injection

37:36:18 - Autowire

37:44:51 - Primary

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37:46:54 Spring JDBC

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38:16:19 Spring MVC

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## Spring Boot MVC

(38:46:48) @RequestParam

(38:57:44) Model

(39:00:37) ModelMap vs Model

(39:01:27) @ModelAttribute as a parameter -> captures data from the view (typically a form) and insert it into a model attribute (object)

(39:11:55) @ModelAttribute as a method

(39:14:51) Spring MVC project -> configuration on a Spring Project

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39:41:39 Spring ORM Theory

40:12:45 Spring Data JPA

40:41:13 Rest API using Spring Boot

40:41:17 REST

41:17:32 Project Using Spring Boot MVC

41:18:09 Java Project

43:45:47 Java Spring Boot MongoDB Full Project

45:01:07 Spring AOP

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45:21:59 Spring Security

(45:34:18) Spring Security -> Login

(45:38:17) How to create user and password in memory -> configuration file

(45:44:51) How to fetch and store user and password in a db

(45:49:37) Creating User class

(45:50:42) Creating Service (UserDetailsService) and setting password encoder

(45:55:42) Creating UserDetails implementation

(46:01:02) Recap

(46:02:37) BCrypt Password encoder

(46:08:57) Customize login

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46:28:34 Microservice