

60-Day Java Developer Study Plan for BNP Paribas

Weeks 1-2: Java Deep Dive & Core Concepts Refresh

Day 1: Java OOPs Concepts - Class, Inheritance, Polymorphism, Abstraction, Encapsulation

Day 2: Java Collections Framework - List, Set, Map, Queue with real-time examples

Day 3: Collections Internals - HashMap, ConcurrentHashMap, TreeMap internals

Day 4: Generics & Exception Handling - Wildcards, custom exceptions

Day 5: Java 8 Features - Streams, Lambda, Functional Interfaces

Day 6: Stream API Deep Dive - Filter, map, reduce, flatMap with examples

Day 7: Practice Day - 5 Java coding questions on Leetcode/Codeforces

Day 8: Java Multithreading - Threads, Runnable, lifecycle

Day 9: Concurrency Utilities - Executors, Future, CountDownLatch

Day 10: Synchronization Techniques - Locks, synchronized blocks

Day 11: JVM Internals - Memory model, GC, class loading

Day 12: Design Patterns - Singleton, Factory, Builder, Strategy

Day 13: Practice Day - Java + multithreading questions

Day 14: Mock Interview - 1-hour mock Java round (Pramp/Peers/ChatGPT)

Weeks 3-4: Spring Boot Mastery + JPA + Microservices

Day 15: Spring Boot Basics - Annotations, starters, app structure

Day 16: REST Controllers + Validation - @RequestParam, @PathVariable, Bean Validation

Day 17: Service + Repository Layer - Interface-driven architecture

Day 18: Spring Data JPA - CRUD, pagination, query methods

Day 19: Custom JPA Queries - @Query, nativeQuery

Day 20: Practice Day - Build a basic Spring Boot app

Day 21: Unit Testing - JUnit + Mockito + @WebMvcTest

Day 22: Microservices Concepts - REST, Feign, Eureka basics

Day 23: Spring Boot with Microservices - Build 2 microservices communicating via REST

Day 24: API Gateway + Resilience - Spring Cloud Gateway + CircuitBreaker

Day 25: Spring Security Basics - JWT, filter chain

Day 26: Swagger + Actuator - API docs + Monitoring

Day 27: Real Use Case - File to DB with validation (Camel optional)

Day 28: Mock Interview - System Design + Spring Boot round

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Weeks 5?6: System Design + SQL + Domain Knowledge

- Day 29: Low-Level Design - Design a BookMyShow clone
- Day 30: LLD Continued - Design a Logger or Cache
- Day 31: High-Level Design - REST-based system with database
- Day 32: HLD Continued - Scalability, DB sharding, caching
- Day 33: SQL Basics - Joins, nested queries
- Day 34: Advanced SQL - Window functions, indexing
- Day 35: Practice Day - 3 SQL + 2 LLD questions
- Day 36: BFSI Domain Basics - What BNP does, trading systems, KYC/AML
- Day 37: FIX Protocol Overview - Basics of how financial systems communicate
- Day 38: Message Queues - Kafka or RabbitMQ basic use cases
- Day 39: CI/CD Basics - Jenkins pipelines, GitLab
- Day 40: DevOps + Docker - Dockerfile, image creation, compose
- Day 41: Practice Day - Fix bugs in an existing project
- Day 42: Mock Interview - Full stack + domain-specific Q&A

Weeks 7?8: Final Prep, Projects, Interview Questions

- Day 43: Java + Spring Quiz - Flashcards or notes
- Day 44: Problem Solving - Arrays, Strings, Hashing (Leetcode easy-medium)
- Day 45: Coding Practice - Sliding window, recursion
- Day 46: Real-Time Project Work - Finalize a personal Spring Boot project
- Day 47: Resume Update - Tailor for BNP Paribas (project, tools, domain)
- Day 48: Behavioral Questions - STAR method, past achievements
- Day 49: Interview Day Simulation - All-round mock interview
- Day 50-55: DSA + Coding Focus - Leetcode (2/day), system design review
- Day 56-57: Spring Boot + JPA Practice - Revise code structure, test writing
- Day 58: Review Notes & Flashcards - Patterns, JVM, Domain concepts
- Day 59: HR Round Prep - Strengths, weaknesses, why BNP
- Day 60: Final Mock + Mindset - Do 1 final dry run and relax