Career Development Center

Two-week Short-term Training Program on
Java Full Stack Development

SCHEDULE

S No.	Date	Topic	FN (09:45 AM - 12:15 PM)	AN (01:05 PM - 03:45 PM)
1	23.06.2025	Exception Handling & Collections - List	Introduction to Exception Handling (try-catch-finally, throws, custom exceptions).	Collections Framework Introduction, List interface (ArrayList, LinkedList, Vector) - basic operations.
2	24.06.2025	Collections - Set & Map	Set interface (HashSet, LinkedHashSet, TreeSet) - basic operations and differences.	Map interface (HashMap, LinkedHashMap, TreeMap, Hashtable) - basic operations and differences.
3	25.06.2025	I/O Streams	I/O Streams - Byte Streams (FileInputStream, FileOutputStream, BufferedInputStream, BufferedOutputStream).	I/O Streams - Character Streams (FileReader, FileWriter, BufferedReader, BufferedWriter), Serialization.
4	26.06.2025	Java 8 Features	Lambda Expressions - syntax, functional interfaces, common use cases.	Streams API - filter, map, reduce, collect, and other intermediate/terminal operations.
5	27.06.2025	Session Management	Session Management - Cookies, HttpSession.	URL rewriting for session management, hidden form fields.
6	28.06.2025	Hibernate ORM - Configuration & Basic Mapping	Introduction to Hibernate ORM, Configuration (hibernate.cfg.xml, annotations).	Mapping Java classes to database tables - basic CRUD operations with Hibernate.

7	30.06.2025	Hibernate ORM - Relationships	Relationships - One-to-One mapping in Hibernate.	Relationships - One-to-Many and Many-to-Many mapping in Hibernate.
8	01.07.2025	Spring Core - IoC & DI	Introduction to Spring Framework - Features, Architecture.	Spring Core - Inversion of Control (IoC), Dependency Injection (DI) - Constructor, Setter, Field Injection.
9	02.07.2025	Spring MVC - Basics	Spring Bean lifecycle, Spring MVC - DispatcherServlet, Controllers.	Spring MVC - Request mapping, handling form submissions.
10	03.07.2025	Spring MVC - CRUD Operations	Spring MVC - Implementing CRUD operations (Create, Read).	Spring MVC - Implementing CRUD operations (Update, Delete).
11	04.07.2025	RWD & Spring Boot Introduction	Responsive Web Designing (RWD) for adaptable UIs.	Introduction to Spring Boot - Features, Auto Configuration, Microservices concept.
12	05.07.2025	REST APIs & Spring Data JPA	REST API development with Spring Boot - creating RESTful endpoints.	Database integration using Spring Data JPA and Hibernate with Spring Boot.

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