

**TRAINING MODULE
COURSE CONTENTS
FOR
INTERNS/NEW RECRUITS
(Online PSB Loans Limited)**

**Module-1
(Java)**

| <u>Core Java Module</u> | | |
|--------------------------------|----------------------------|---|
| S.no. | Title | Description |
| 1 | Basic OOPs Concepts | Abstraction, Encapsulation, Polymorphism etc. |
| 2 | Constructor | Default and Parameterized Constructor |
| 3 | Advance for Loop | Working with for-each loop |
| 4 | Inheritance | Understanding of Is-A relationship |
| 5 | Interface | Use of Interface |
| 6 | Overloading and Overriding | Compile and Runtime polymorphism |
| 7 | Exception handling | Handling of Exception |
| 8 | Collection Framework | Understanding of Collection and their uses |
| 9 | Generics | Use of Generics in Collection |
| 10 | Stream API | Understanding of Stream API |
| 11 | Date & Time | Work with Date & Time API |
| 12 | Comparator Vs Comparable | Uses of Comparator & Comparable Interface |

Module-2 **(Spring Boot)**

| <u>Spring-boot Module</u> | | |
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| S.no. | Title | Description |
| 1 | Spring Core | Basic of Spring Core |
| 2 | Spring ORM | Hibernate |
| 3 | Spring Boot | Understanding Spring Boot features |
| 4 | Spring Annotation | Uses of Common Annotations |
| 5 | Spring Entity | Work with @Entity Annotation |
| 6 | Spring Controller | Work with @Controller Annotation |
| 7 | Spring Data JPA | Project with Entity and JPA |
| 8 | Spring Mapping | One-One, One-to-Many, Many-to Many |
| 9 | Spring Service, Repository | Understanding @Service and @Repository |
| 10 | Lombok | Working with Lombok Lib and their Features |
| 11 | Spring Exception handling | Use of @ControllerAdvice etc. |
| 12 | Spring Data REST | Development of REST Services |
| 13 | HTTP Methods | GET, POST, PUT, DELETE MappingRequest |
| 14 | REST Service with Request Data | Uses of @RequestBody, @PathVariable etc. |
| 15 | POSTMAN Software | Test Services through POSTMAN |
| 16 | Spring Validation | Server Side Validation |
| 17 | Working with File/Document | Use of Multipart Data, Dynamic Path etc. |
| 18 | Spring Security | Spring Security using JWT |
| 19 | Micro-services Basic | Basics of Micro-services, uses of micro-services |
| 20 | Implementation of Micro-Service | Real-time Implementation of Project with concept of Micro-service |

Module-3
(DBMS-MySQL)

| <u>SQL Module</u> | | |
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| S.no. | Title | Description |
| 1 | SQL Syntax | Understanding Basic SQL Syntax |
| 2 | DDL | Definition Manipulation |
| 3 | Select Statement | Querying Data with the Select Statement |
| 4 | Where Clause | Filtering Results with the Where Clause |
| 5 | ORDER BY, GROUP BY | Shaping Results with ORDER BY and GROUP BY |
| 6 | DML | Data Manipulation |
| 7 | JOINS | Understanding Basic of JOINS |
| 8 | (INNER) JOIN | Matching Different Data Tables with JOINS |
| 9 | LEFT (OUTER) JOIN | |
| 10 | RIGHT (OUTER) JOIN | |
| 11 | FULL (OUTER) JOIN | |
| 12 | Project based on JOINS | Web based Project using JOINS and Dummy DB |
| 13 | Query Optimization | Query optimization using indexes |
| 14 | Stored Procedure | Creation of Stored Procedure for specific task |
| 15 | Trigger | Creation of Trigger |

Module-4 **(Angular)**

| <u>Angular Module</u> | | |
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| S.no. | Title | Description |
| 1 | Angular Overview | Installation, Features of Angular |
| 2 | Folder Structure | Understanding of folder structure |
| 3 | Components | Working with Component |
| 4 | Data Binding | Text interpolation, 2-Way Binding etc. |
| 5 | Typescript | Typescript Fundamentals |
| 6 | Directives | ng-model etc. |
| 7 | Module | Working with Module |
| 8 | Service | Understanding of Service |
| 9 | Routing | Working with Routing |
| 10 | Template Driven Forms | Forms |
| 11 | Reactive Forms | Forms |
| 12 | Consuming REST API | Calling APIs |
| 13 | Validation | Front-end validation |
| 14 | Security | Authorization and Authentication |
| 15 | Style/CSS | Use of Bootstrap and Angular Material |
| 16 | Auth-guard | JWT Implementation |