**Full stack Development**

1. **Introduction to Java**

* Working of Java
* Features of Java
* JVM,JRE,JDK

2. Data Types

* What are data types
* Types of Data types
* Primitive Data Types
* Non-Primitive Data types

3. Variables

* What are Variables
* Variable declaration
* Variable initialization
* Types of variables
* Scope of variables
* Variable accessibility

4 .Naming Convections, Keywords

* What are keywords
* List of keywords
* Language fundamentals
* Typecasting
* What is typecasting
* What is type conversion

5. Operators

* What are operators in java
* List of operators in java
* Operators with examples

6. Constructors

* What is constructor
* Default constructor
* Parameterized constructor
* Command line arguments in java
* Wrapper classes in java
* What is wrapper class
* List of wrapper classes

7. Flow controls or control statements

* Decision making in java
* Iterative statements
* Jumping statements

1. conditions

* simple if
* if-else
* else –if ladder
* switch and case

1. loops

* for
* while
* do-while

8. OOPs (Object Oriented Programming System)

* what is Class
* what is Object
* Features Of OOPs
* Inheritance
* Single level Inheritance
* Multi level inheritance
* Hierarchical inheritance
* Hybrid Inheritance
* Multiple Inheritance
* Polymorphism
* Method Overloading
* Method Overriding
* Abstraction
* Abstract class
* Interface
* Encapsulation

9. Keywords

* This,super,final
* Access Modifiers
* Packages

10. Arrays

* What is an array
* Creating
* Initializing and accessing array
* Instantiation of array
* 1-D Arrays
* Multi Dimension Arrays
* 2-D arrays
* Jagged arrays

11. String, String Buffer, String Builder

* What is String
* Memory allocation of methods
* String methods
* What is SCP
* What is Heap Area

12. JVM Architecture

* Loading
* Memory area
* Engine

13. Exception Handling

* What is error
* Type of errors
* What is exception
* Exception hierarchy
* Checked exception
* Unchecked exception
* Predefined exception
* Keywords try catch finally
* Throw and throws
* User defined exceptions

14. Multi Threading

* What is multitasking
* Thread based multitasking
* process based multitasking
* What is thread
* Type of threads
* How to create a thread
* Thread names
* Priority of thread
* Thread life cycle
* Methods of life cycle
* Yield()
* Sleep()
* Join()
* Synchronization
* Deadlock

15. Collection Framework

* What is collection
* Advantages
* Disadvantages
* List
* Arraylist
* Linked list
* Vector
* stack
* Set
* HashSet
* Linkedhashset
* Treeset
* Queue
* Map
* Hashmap
* Linkedhashmap
* Treemap

16. java8 features

* Lambda Expression
* Functional Interface
* Default and static methods
* Predefined functional interface
* Predicate
* Function
* Consumer
* Supplier
* Double colon operator ::
* Date and time API

17. Regular Expression

18. Database (MySql)

* Sub categories
* DDL
* DML
* DRL
* DCL
* TCL
* Constraints
* Not null
* Check
* Unique
* Primary key
* Foreign key
* Joins
* Inner join
* Equi join
* Left outer join
* Right out join

19. JDBC

* Introduction to jdbc
* Jdbc driver
* Jdbc connection
* Driver manager
* Resultset
* Prepared statement
* Statements

20. Hibernate/Jpa

* What is hibernate
* Hibernate advantages
* Hibernate disadvantages
* What is ORM
* What is JPA
* Entity manager classes
* Entity manager methods
* JPQL
* Relationships
* One-to- one
* One to many
* Many to one
* Many to many

21. Spring Framework

* introduction to spring
* what is spring
* environmental setup
* inversion of control
* xml configuration
* setter injection
* constructor injection
* ioc container
* Autowiring
* Byname
* Bytype
* Constructor-arg
* Scopes
* Singleton
* Prototype
* Bean life cycle
* Application context
* Create maven project
* Application context with xml configuration
* Application context with java configuration

22. Spring Boot

* Disadvantages of spring
* Advantages of spring boot
* Spring boot features
* Spring boot with maven
* Spring boot with JPA
* Springbok with dataJpa

23. Webservices

* What is web services
* Types of web services
* Restful web services
* Springbootdatajparest with crud operations