**Training Day wise breakup**

**Foundation – 4 Days**

Day 1

* Software Engineering
  + Different types of model
  + Agile
  + Scrum

Day 2

* Software Testing
  + Types of Testing
  + Manual Testing
  + Automation Testing
  + Test cases

Day 3

* Support and Configuration Management
  + Service configuration management
  + Features
  + Methodology
* Service configuration
* Discussion on the different deployment tools
  + Docker
  + Jenkins
  + Kubernates

Day 4

* Agile
  + Agile Overview, Roles in Agile,
  + What is User Story
  + Agile Principles
  + What is a Standup?
  + What is a Product Backlog?
  + Agile Planning Overview

Foundation Assessment

**Unix – 5 Days**

Day 1

* Introduction to Unix
* Working with Linux OS
* Linux Concepts
* Linux System and Linux GUI and Desktop Ops
* CLI, System Configuration
* Common Applications and Command Line Operations
* Working with Processes and File Operations

Day 2

* File Management
  + Creating file
  + Creating directory
  + Copy
  + Move
  + Rename
* Using Text Editors

Day 3

* Filters
  + Grep
  + Cut
  + Tr
  + More
  + Less
  + Head
  + Tail
* Find
* Permissions
* Creating users, groups

Day 4

* The Bash Shell and Basic Scripting, Shell Environment, #!,
* ps Utility, Processes and Scripting on the BASH shell
* PATH variable and sub-shell scripting
* Parameters and Command substitution
* .bash\_profile, system profile scripts
* Using shell Commands

Day 5

* Constructs and conditional statements
* Variables
* loops
* Special variables $$, $#, $

Linux Assessment

**SQL & NoSQL – 5 Days**

Day 1

* Introduction SQL
* DQL
* Select
  + Where
  + Order by
  + Aggregate functions
  + Group by
  + Having
* Joins

Day 2

* Sub Queries
* DDL
  + Create
  + alter
  + drop
* Constraints
* DML
  + Insert
  + Delete
  + Update

Day 3

* Normalization
  + First normal form
  + Second normal form
  + Third normal form
* De-normalization

Day 4

NoSQL

* Introduction
* NoSQL Databases
* Installing and Configuring MongoDB
* Data storage, documents, and types
* Querying and working with data
* Working with operators and collections

Day 5

* Advanced querying
* CRUD functionality in MongoDB
* Case study on SQL with a specific Domain

RDBMS Assessment

**Java – 10 Days**

**Eclipse, STS**

Day 1

* Introduction to Java
* Eclipse (Overview, debugging technique)
* Java Data types
* Variables, Operators
* Conditional Statement
* Loops
* Array

Day 2

* Object Oriented Programming with Java
  + Classes
  + Objects
  + Functions
  + Constructors
  + Modifiers
  + Relationships
    - Has-a
    - Is-a

Day 3

* Abstract
* Interface
* Polymorphism
* Packages

Day 4

* Exceptions (Compile & Run time)
* Custom Exceptions
* Wrapper Classes

Day 5 - 6

* Collections (Arrays, List, Map, set, iterator, Hashing)
* Generics

Day 7

* Java - IO Overview
* Junit

Day 8 - 9

* JDBC
* Maven

Day 10

* Case study on Java

Java Assessment

**Web Programming – 10 Days**

Day 1

* HTML5
  + Tags
  + Elements
  + Tables
  + Link
  + Image
  + Semantics Tags
  + Storage
  + Canvas
  + Googlemap
  + Forms

Day 2

* CSS3
  + Stylesheet
  + Selector
    - ID
    - Class
    - HTML
    - Inheritance
  + Style Properties

Day 3

* Java Script
  + Dialog Box
  + Conditional Statement
  + Loop statement
  + Array
  + DOM

Day 5

* Spring Core
  + Introduction
  + Dependency Injection
    - Constructor
    - Setter
  + Annotation based

Day 6

* Spring JDBCTemplate

Day 7

* Spring MVC framework
* DispatcherServlet, Handler mappings, Resolving views

Day 8

* JPA

Day 9

* RestAPI
* Spring Boot
* Spring Boot JPA, MongoDB

Day 10

* Swagger
* Introduction to SOA and Microservices
* **SOA**
* **Overview of Oracle SOA**
* **SOA to a Layman**
* **Overview of Oracle SOA**
* **Real Time Examples**
* **Advantages in using Oracle SOA**
* **Why Oracle SOA is Important**
* Future technologies
* Devops
* CI/CD

Tools: POSTMAN

Web and Spring Assessment

**Testing – 12 Days**

Days 1 - 3

* SOAP UI
* Web Service Testing
* Introduction to SOAPUI
* SOAP UI Installation and Configuration: Complete Guide
* SoapUI Tutorial: Create a Project, Test Suite, TestCase
* Assertions in SoapUI

Day 4

XPATH

* Overview
* XPath - Expression
* Query language for xml
* XPath Nodes
* XPath - Absolute Path
* XPath Relative Path
* XPath - Axes
* XPath - Operators
* XPath - Wildcard
* XPath - Predicate

Day 5 - 8

Apache JMeter for conducting Web page , Database server, FTP, JMS and Web Services Performance Testing.

* Introduction Performance Testing
* Introduction to Apache JMeter
* Elements of JMeter Test Plan
* Building a JMeter Test Plan
* Recording Tests Using JMeter
* Enhancements in Test Scripts
* JMeter Result Analysis
* Running Mutiple Scripts with JMeter
* Different Types of JMeter Test Plans
* Jmeter Distributed (Remote) Testing
* JMeter Functions, Variables and Regular Expressions
* JMeter Best Practices

Day 9 – 10

* Automation Testing Tool
  + Basics of automation testing – why, when and how to perform automation testing
  + Factors for choosing a particular tool
  + An overview for the major functional testing tools
  + Overview of Test management and bug tracking tools

Day 11 – Day 12

Paas, Saas, AWS,

Cloud introduction

* Definition of cloud computing
* Categorization of the various service types
* Drivers of Cloud Solutions
* Handling cloud security
* Business Demands
* Deployment of software solutions and web applications
* Exploring Platform as a Service (PaaS) – Different
* Evaluating the architecture

Testing Assessment