

### **Day 1 and 2:**

A brief introduction of java and industry practices was delivered. A comparative analysis of JDK (Java Development Kit) and JVM (Java Virtual Machine) was done. Different code editors which are actively used in industry such as eclipse, sts (Spring Toolkit System) and intellij were introduced. The importance of access specifiers, interfaces and packages were discussed. The introduction to parent class of java use of return type, method overloading were discussed. Clones concept and basic concepts of OOP were discussed. Annotation, hashCode concept was done. Exception handling, Final class, ArrayList, LinkedLists, HashSet, HashMaps, LinkedHashMapSet, HashMap were explained.

An easy problem statement having inheritance was given to students. String buffer, strings, debugging were discussed. Code migrations and concept of wrapper class were introduced. The complete structure of industry level full stack application, API, how linking with databases and backend integration works was discussed in detail. Basics of SQL, functions in PL/SQL, spring MVC were emphasized. The instructor gave an assignment to create a login page using html.

### **Day 3 and 4:**

Creating a simple webapp using Spring Boot, differences between Spring MVC and Spring boot was explained. Creating spring controller and main runner java file was explained. The use of such annotation while developing Spring Boot apps such as @Controller, @RequestMapping were discussed. Then started with basic Spring boot project using a runner class and a controller class to establish a server to communicate with user using HTTP requests. At the end of Day 3 we were able to create a new Spring application with all the required. We checked the result on PORT 8080 using localhost:8080.

Next day we learn how to run JSP pages as response to the GET requests made from browser. The Concepts of JDBC and Hibernate were introduced with in depth comparisons. The configurations were to be made to **application.properties** file in resource folder were discussed. The usage of hibernate using simple object oriented programming was explained, all the methods, annotations used to query the data from the database were discussed and the hibernate was explored further more. Instructor took a QA session at the end of the day.

