

TOC								
Training Name/Title: ASDE Training								
Trainer Name: Sivakumar								
Objective of the training: To make college graduated to build cloud native application and inculcating mindset of product engineering								
Pre-Requisite for participants: To have good programming knowledge on Java Programming and good to have basic understanding cloud native application								
SI No	Day #	Module	Sub Module	Theory (Concepts)/ Hands-on	Assignment/Use Case / Project Description	Reverse KT	Hands-on	
1	Day 1	Maven, OOAD	Introduction to OOAD & UML Understanding the need of documents	Concepts + Practicals	Objective & Subjective			
2			Building Simple Java Project with Maven(Dependencies, Build, Plugins)Overview of Gradle					
3	Day 2	Git Jenkins	Recap of Git working with BitBucket	Concepts + Practicals				
4			Introduction to DevOps,Working with Jenkins - building application with Jenkins, Understanding plugins, creating pipeline with groovy scriptRecap of Git working with BitBucket, Intro to Ansible and Terroform					
5	Day3	MongoDB	MongoDB - NoSQL DB, CRUD, Understnaing & Creating Indexes, CAP theorem	Concepts + Practicals				
6	Day4	Java	Understnding Highly Cohesive - Loosely Coupled Systems, Collections & Generics-List, Set, MapUnderstnding Highly Cohesive - Loosely Coupled Systems, Collections & Generics-List, Set, Map	Concepts + Practicals		Noel (MongoDB)		
7	Day5	RDBMS, JDBC	RDBMS Concepts, JDBC - CRUD Operations, with postgres DB/Mysql	Concepts + Practicals		Sachin (Java - Collection)		
8	Day6	Java 8	Functional interfaces, lambda expression, Optional class,Stream API	Concepts + Practicals	Objective & Subjective	Vinayak (RDBMS)		
9	Day 7	Java 11+17	Introduction to Java 11 programming features, Sealed classes, Pattern matching, Introduction to new features of Java 17, Java NIO and NIO2	Concepts + Practicals		Mukul (KT - Java 8 Feature)	Sathiya	
10	Day 8	TDD, Mockito, Code Quality, NFR	Understanding TDD approach Working with JUnit 5, Mockito, Sonarqube, Introduction to NFR and the uses cases to understand	Concepts + Practicals		Vinay (Java 11 & 17)	Rithik	
11	Day 9	Solid Principles	Design Patterns & Principles, SOLID Principles, DRY,YAGNI, Introduction to logging, Lombok	Concepts + Practicals		Niharika (TDD, Mockito, NFR)	Jagadeesh	
12	Day 10	Spring	Spring IOC, Bean Life Cycle, Bean post processor,Annotation Based	Concepts + Practicals		Prasanth (SOLID, Lombok)	Rohit	
13	Day 11	Servlets & JSP	Introduction Servlets, Understanding Web Servers, Working example with JSP	Concepts + Practicals	Objective & Subjective			
14	Day 12	Spring MVC	Spring AOP, Aspect, Advice, Joinpoint, Spring MVC Architecture, Model	Concepts + Practicals				
15	Day 13	Spring Boot 3	Creating a Spring Application using Spring Boot, Performing CRUD Operations with MongoDB	Concepts + Practicals				
16	Day 14	Spring Cloud	Balancer, Open Feign, Spring Cloud Circuit Breaker, Spring Cloud Config,	Concepts + Practicals				
17	Day 15	HTML, JS	Introduction to HTML, CSS,Javascript, Introduction to Mediaqueries, Object based features, Validating with Javascript, Understanding DOM, Manipulating HTML with DOM. Understanding object hierarchy	Concepts + Practicals	Objective & Subjective			
18	Day 16	JavaScript	Introduction to AJAX, Fetch, Functinal programming, closures, currying, call, async, await. Introductio to ES6, npm dependencies Understanding promises & callback, introduction to jquery	Concepts + Practicals				
19	Day 17	React	Introduction to NodeJS,Installing NodeJS, NPM, Modules,Asynchronous programming,Introduction to React, jsx, Stateless and stateful component, nesting component	Concepts + Practicals				
20	Day 18	React	Events & methods, Lifecycle, HOC, CSS Styling, Form Validation	Concepts + Practicals				
21	Day 19	React	Forms & Inputs,JSX Introduction, Benefits of JSX, React Components, Hooks, Error Boundaries, React.lazy and Suspense for CSR, CSR/SSR, Design patterns - atoms, molecules, organism	Concepts + Practicals				
22	Day 20	React Redux	React Redux - State management, React Routers, Testing React Application	Concepts + Practicals				
23	Day 21	Selenium & Cucumber	Need of BDD, Introduction to Cucumber, Gherkins,Understanding e2e Testing, working with Selenium	Concepts + Practicals	Objective & Subjective			
24	Day 22	Kafka	Introduction to Kafka, Installation, Topics, Partitions, Producer, Consumer	Concepts + Practicals				
25	Day 23	Docker	Introduction to Docker, Installation, Containerization, Docker Image, Docker Container, Docker Hub, Dockerfile, Docker Compose	Concepts + Practicals				
26	Day 24	Kubernetes	Introduction to Kubernetes, Installation, minikube, Container Orchestration, Clulster, Control Plane, Nodes, Pods, Replication and Scaling, Services, Configurations	Concepts + Practicals				
27	Day 25	AWS	AWS - Creating EC2 instances, Creating VPC, understanding NAT, Security policies	Concepts + Practicals				
28	Day 26	Project Work						
29	Day 27	Project Work						
30	Day 28	Project Work						

31	Day 29	Project Work		NA
32	Day 30	Project Work		
33	Day 31	Project Work		
34	Day 32	Project Work		
35	Day 33	Project Work		
36	Day 34	Project Work		
37	Day 35	Project Work		
38	Day 36	Project Work		
39	Day 37	Project Work		
40	Day 38	Project Work		
41	Day 39	Project Work		
42	Day 40	Project Work		
43	Day 41	Project Work		
44	Day 42	Project Work		
45	Day 43	Project Work		
46	Day 44	Project Work		
47	Day 45	Project Work		
48	Day 46	Project Work		
49	Day 47	Project Work		
50	Day 48	Project Work		
51	Day 49	Project Work		
52	Day 50	Project Work		
53	Day 51	Project Work		
54	Day 52	Project Work		
55	Day 53	Project Work		
56	Day 54	Project Work		
57	Day 55	Project Work		
58	Day 56	Project Work		
59	Day 57	Project Work		
60	Day 58	Project Work		
61	Day 59	Project Work		
62	Day 60	Project Work		