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| **Full stack++ (Front End , Back End, Database, Agile, Devops, Cloud-AWS, Architecture)** | | |
| **Week** | **Topic** | **Content** |
| **Week 1**  **(Day 1 to 5)** | **Architecture** | Design Patterns Overview |
| SOLID Software Design Principles in Java |
| Microservices & MVC covered in Java |
| **BackEnd** | **Modern Java: The Big Picture** |
| **Spring Core** |
| Spring Introduction, Dependency Injection, Container, Bean Definitions, XML/Java Configurations, @Component, @Autowired, @Value @Qualifier etc. |
| **Spring Framework: Spring MVC Fundamentals** |
| Web Application Context, MVC basics, Data Validation, Controllers, Request Mapping, Error Handling, Controller Advice |
| **Spring Boot Fundamentals** |
| Building Your First App with Spring Boot and Angular |
| Spring Boot: Efficient Development, Configuration, and Deployment |
| Actuator, Auto configuration |
| **Spring Jpa** |
| Jpa, Entities, Relationships, Inheritance, JPQL, Query methods |
| Spring Data Jpa, Transaction, Caching |
| **Spring REST** |
| Spring Data REST |
| TDD with Spring and JUnit 5 |
| **5th day of week** |  | **Assessment** |
| **Sat – Sun** |  | **Assignment Activity** |
| **3rd /4th day of week** |  | **Cohort Leader Mentor Session (1 hours)** |
| **Week 2**  **(Day 6 to 10)** | **Microservices** | Microservices Fundamentals |
| Spring Cloud Fundamentals |
| Java Microservices with Spring Cloud: Developing Services |
| Containers and Images: The Big Picture |
| **Database** | MY SQL Fundamentals |
| MySQL Fundamentals Part 2 |
| MySQL Query Optimization and Performance Tuning |
| Introduction to MongoDB |
| Querying Data from MongoDB |
| **DevOps** | DevOps: The Big Picture |
| Continuous Integration and Continuous Delivery: The Big Picture |
| Continuous Monitoring: The Big Picture |
| **5th day of week** |  | **Assessment** |
| **Sat – Sun** |  | **Assignment Activity** |
| **3rd /4th day of week** |  | **Cohort Leader Mentor Session (1 hours)** |
| **Week 3**  **(Day 11 to 15 )** | **Cloud - AWS** | Cloud Computing: The Big Picture |
| Fundamental Cloud Concepts for AWS |
| Deploying micro services on EC2/Elastic Beanstalk |
| AWS CI CD Tools |
| **SCM** | Getting Started with Git |
| Sonar Qube |
| **Agile** | Agile Fundamentals |
| Agile & DevOps: Executive Briefing |
| Agile Team Practices with Scrum |
| **5th day of week** |  | **Assessment** |
| **Sat – Sun** |  | **Assignment Activity** |
| **3rd /4th day of week** |  | **Cohort Leader Mentor Session (1 hours)** |
| **Week 4**  **(Day 15-20)** | **User Interface** | HTML, CSS, and JavaScript: The Big Picture |
| Building Websites with HTML, CSS, and JavaScript: Getting Started |
| Bootstrap 4 for the Developer |
| Extending Bootstrap with CSS, JavaScript, and jQuery |
| Creating a Responsive Layout with Bootstrap Grid |
| Creating a Site with CSS Grid and Bootstrap 4 |
| RESTful Web Services with Node.js and Express overview |
| **Front End** | Angular: The Big Picture |
| Workshop: Angular Basics Day 1 |
| Workshop: Angular Basics Day 2 |
| Angular Patterns & Best Practices |
| React: The Big Picture |
| Building React Apps with Typescript |
| A Practical Start with React |
| Designing React Components |
| Testing React Components |
|  |  | **PU Leader Connect for 30 min.** |
| **1st day of week** |  | **Project Case Studies** |
| **5th day of week** |  | **Final Assessment** |