







A Report on Two-days Hands on Workshop on "Code Craft: A Deep Dive into Java Development"

Organized by Department of Computer Science & Engineering in association with ISTE Student Chapter from 31.01.2025 to 01.02.2025



Report Submitted by: Mr. K. Sathish, Assistant Professor, Department of Computer Science & Engineering. Organized by: Dr. K. Sree Divya, Assistant Professor & Mr. K. Sathish, Assistant Professor, Dept. of CSE. Resource Person Details: Mr. Alumuri Subramanyam, Team Lead, L & T Technology Services, Chennai.

Attended: Second year CSE Students from MITS. (Total Count: 75)

Venue: Seminar Hall – A, MITS Mode of Conduct: Offline Report Received on 05.02.2025.

Event Overview:

The "Code Craft: A Deep Dive into Java Development" workshop, organized by the Department of Computer Science & Engineering in association with ISTE Student Chapter, is designed to provide an immersive and hands-on learning experience for students interested in mastering Java programming.

This two-day workshop will explore the core concepts and advanced topics of Java development, giving participants practical exposure through coding sessions, project-based learning, and expert-led discussions. The event will feature a mix of theoretical knowledge and practical application, with a focus on:

- 1. **Core Java Concepts**: A deep dive into Java fundamentals like object-oriented programming, data structures, algorithms, exception handling, and Java libraries.
- 2. Advanced Java Topics: Topics like multi-threading, file handling, Java frameworks, and performance optimization.
- 3. Hands-On Sessions: Real-time coding exercises to reinforce understanding and build strong programming skills.
- 4. **Industry Insights**: Interaction with industry experts and seasoned developers, providing insights into current Java development trends, best practices, and career opportunities.



Inauguration:

The Two-Days Hands on workshop, "Code Craft: A Deep Dive into Java Development" was officially inaugurated on 31st January 2025 with an engaging welcome address delivered by Yamini Krishna, a second-year CSE student. In her

speech, Yamini expressed gratitude to the management, Principal, Head of the Department, and the coordinators for their unwavering support, which made the event possible. She also warmly welcomed the resource person for the workshop, Mr. Alumuri Subramanyam, a Technical Lead at L&T Tech, Chennai, who brought with him seven years of expertise in Java development. Mr. Subramanyam's experience in working on various Java projects made him the ideal person to lead the sessions throughout the workshop.

Dr. M. Sreedevi, Head of the Department, also welcomed the participants, highlighting the importance of such initiatives in shaping their skills. The inauguration was further enriched by an insightful address from Dr. P. Ramanathan, Vice Principal, who emphasized the significance of mastering Java for success in the software industry. Dr. K. Sree Divya, ISTE Institute Coordinator, concluded the inaugural session by emphasizing how the workshop would bridge the gap between theoretical concepts and practical applications.

Resource Person Profile:

Mr. Alumuri Subramanyam completed his B. Tech and M. Tech in Computer Science & Engineering from Jawaharlal Nehru Technological University, Anantapur. With 7 years of hands-on experience in the IT industry, Mr. Subramanyam has honed a strong technical foundation, specializing in J2EE frameworks such as Spring, Spring Boot, and Hibernate, along with expertise in Oracle and PL/SQL. Currently serving as a Tech Lead at L&T Technology Services in Chennai, Mr. Subramanyam has contributed to various projects across different domains, particularly banking and finance. His work includes collaborations with major organizations such as Union Pacific Railroad and Citi Bank, specifically on ATM-related applications. He has a strong command of Agile methodologies, continuous integration, and code quality, with proven leadership abilities in overseeing project delivery. Additionally, Mr. Subramanyam holds a certification in MuleSoft and has a solid track record in team management, knowledge sharing, and problem-solving across teams.

Day 1 Session:

The first day of the workshop focused on the **core Java concepts** that are essential for any Java developer. Mr. Subramanyam began the session with a brief overview of the Java programming language, its architecture, and fundamental principles such as object-oriented programming (OOP), inheritance, polymorphism, and encapsulation. Participants were introduced to key Java libraries and frameworks, which included practical examples and coding exercises. A significant portion of the session was dedicated to real-time problem-solving, where participants were tasked with solving Java challenges using concepts like exception handling, data structures, and algorithms.



Day 2 Session:

On the second day of the workshop, the focus shifted to **advanced Java topics** and industry-standard frameworks. Mr. Subramanyam led the participants through detailed sessions on Spring and Hibernate—two essential frameworks for building enterprise-level Java applications.

- Spring Framework: Participants were introduced to the Spring ecosystem, including the core principles of
 dependency injection and aspects of Spring Boot that streamline application development. The session included a
 practical demonstration on building a simple application using Spring.
- **Hibernate Framework:** The session on Hibernate revolved around ORM (Object Relational Mapping) concepts, showcasing how to handle database operations in Java applications efficiently. Real-world use cases and best practices for leveraging Hibernate were discussed, giving participants hands-on experience in setting up and using Hibernate for database interaction.

Vote of Thanks

The workshop concluded with a vote of thanks delivered by Dr. R. Nidhya and Mr. K. Sathish, who expressed their heartfelt appreciation to the resource person, management, and all the participants for their active involvement and contribution to the event's success.

Event Outcome:

The "Code Craft: A Deep Dive into Java Development" workshop was a resounding success, providing participants with valuable knowledge and practical experience in Java programming. The key outcomes of the event include:

Enhanced Java Skills:

- Participants gained a deeper understanding of core Java concepts, including object-oriented programming, exception handling, and multithreading.
- The workshop also provided exposure to advanced Java frameworks like Spring and Hibernate, enabling participants to explore enterprise-level development practices.

Practical Hands-On Experience:

- o Attendees had the opportunity to engage in real-world coding exercises, reinforcing their learning and improving problem-solving skills.
- The hands-on approach allowed participants to implement theoretical knowledge in practical scenarios, helping them build confidence in writing efficient and effective Java code.

Familiarity with Industry Best Practices:

- The sessions highlighted industry best practices for software development, particularly in areas like code quality, Agile methodologies, and continuous integration.
- o Participants learned valuable techniques for building robust, maintainable Java applications, which are essential for career success in the software development industry.

Exposure to Advanced Frameworks:

- Day 2's focus on Spring and Hibernate introduced participants to widely used frameworks in Java development, providing insight into how enterprise applications are developed, optimized, and maintained.
- O This exposure helped attendees understand the importance of these frameworks in building scalable and high-performance applications.

Improved Career Readiness:

- By bridging the gap between theoretical knowledge and practical application, the workshop enhanced participants' readiness for internships and full-time roles in software development.
- Many attendees reported feeling more confident in their Java skills, which they can now apply to real-world projects and job opportunities.

Networking and Collaboration:

The event facilitated networking opportunities between students, faculty, and industry professionals, fostering connections that could benefit participants in their academic and professional journeys.

Participants worked collaboratively, enhancing their teamwork and communication skills.

Positive Feedback from Participants:

The feedback from participants was overwhelmingly positive. Many appreciated the practical focus of the workshop, the clarity of the instructor's sessions, and the opportunity to learn from an industry expert like Mr. Alumuri Subramanyam.

Newspaper Clips:

