

SHRI RAM (AUTONOMOUS) COLLEGE, MUZAFFARNAGAR

NOTICE

Date: 17.11.2025

Workshop on Project Development using JAVA and Other Web Technologies

All the students of BCA Final Year (VI Semester) are hereby informed that the Department of Computer Applications is organizing a Three-Day Hands-on Workshop on "Project Development using JAVA and Other Web Technologies" to enhance practical programming skills and guide students in developing industry-oriented software projects.

The workshop is designed to provide students with practical exposure to complete software development using Java and modern web technologies. Expert faculty members and industry professionals will conduct interactive lectures, coding sessions, demonstrations, and project development activities.

Workshop Details

Particular	Details
Title	Workshop on Project Development using JAVA and Other Web Technologies
Organized By	Department of Computer Applications
Participants	BCA Final Year (VI Semester) Students
Duration	3 Days
Dates	Dec 1-3, 2025
Time	10:00 AM – 3:30 PM
Venue	Computer Laboratory & Seminar Hall
Mode	Offline (Hands-on Training)

Objectives of the Workshop

- To provide hands-on experience in Java programming.
- To understand the Software Development Life Cycle (SDLC).
- To develop web-based applications using Java technologies.
- To learn frontend and backend integration.
- To work with databases using JDBC and MySQL.
- To enhance debugging and testing skills.
- To prepare students for final-year projects, internships, and campus placements.

Topics to be Covered

- Introduction to Software Development Life Cycle (SDLC)
- Requirement Analysis and Project Planning
- Core and Advanced Java Programming
- Object-Oriented Programming Concepts
- Exception Handling and File Handling
- HTML5, CSS3, JavaScript and Bootstrap

- JSP and Servlets
- JDBC Connectivity with MySQL
- Session Management and Authentication
- CRUD Operations
- Testing and Debugging
- Software Documentation
- Project Deployment using Apache Tomcat
- Mini Project Development

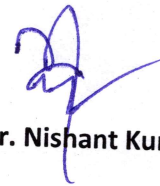
Workshop Highlights

- Hands-on Practical Sessions
- Live Coding Demonstrations
- Mini Project Development
- Team-based Learning
- Expert Guidance
- Industry-Oriented Training
- Project Evaluation

Instructions for Participants

- Attendance in all sessions is mandatory.
- Students must carry their college ID card.
- Students should bring a notebook and pen for notes.
- Laptops are recommended (if available).
- Mobile phones should remain on silent mode during sessions.
- Students should report to the venue at least 15 minutes before the commencement of each session.

Interested students are requested to provide their name to the respective class teachers on or before 27.11.2025.



(Dr. Nishant Kumar Rathi)

Dean,
Faculty of Computer Applications
Shri Ram (Autonomous) College, Muzaffarnagar



PROJECT REPORT

On

**Workshop on Project Development using JAVA and
Other Web Technologies**

Organized for

Bachelor of Computer Applications (BCA) Final Year Students

Organized by

Department of Computer Applications

Shri Ram (Autonomous) College, Muzaffarnagar

Duration

Dec. 1-3, 2025 (3 Days)

Venue

Computer Laboratory & Auditorium

Academic Session

2025-26

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EXECUTIVE SUMMARY

The Department of Computer Applications organized a three-day intensive workshop titled "Project Development using JAVA and Other Web Technologies" for BCA Final Year students from 01.12.2025 to 03.12.2025. The primary objective was to equip students with practical software development skills necessary for academic projects, internships, placements, and industrial applications.

The workshop focused on the complete software development lifecycle, including project planning, requirement analysis, Java programming, database integration, frontend development, backend implementation, testing, debugging, documentation, and deployment.

The sessions combined theoretical concepts with extensive practical exercises, enabling students to develop complete web-based applications.

More than 181 students actively participated in the workshop, and each participant completed a mini-project using Java and modern web technologies.

INTRODUCTION

In today's competitive software industry, practical development skills are as important as theoretical knowledge. While students study programming languages throughout their curriculum, they often require structured guidance for developing industry-level projects.

Java continues to be one of the most preferred programming languages due to its platform independence, robustness, security, and enterprise-level capabilities. Along with Java, modern web technologies such as HTML5, CSS3, JavaScript, Bootstrap, MySQL, and JSP/Servlets provide a complete environment for developing dynamic web applications.

Considering these requirements, the Department organized this workshop to bridge the gap between classroom learning and industrial expectations.

NEED OF THE WORKSHOP

The workshop was organized because:

- Students lacked confidence in complete project development.
- Many students had limited exposure to real-world software development.
- Industry demands full-stack development skills.
- Students require guidance for final-year projects.
- Placement companies expect practical programming knowledge.
- Students need experience with debugging and testing.

OBJECTIVES

The workshop aimed to:

- Develop practical programming skills.
- Teach complete project development.
- Familiarize students with Software Development Life Cycle.
- Improve Java programming concepts.
- Explain frontend and backend integration.
- Introduce database connectivity.
- Enhance debugging skills.
- Develop teamwork abilities.
- Improve documentation skills.
- Prepare students for campus placements.

EXPECTED OUTCOMES

Students should be able to:

- Design software architecture.
- Develop Java applications.
- Create responsive web interfaces.
- Connect applications with MySQL databases.
- Perform CRUD operations.
- Handle exceptions.

- Implement authentication systems.
- Generate reports.
- Deploy applications.

WORKSHOP PLANNING

Duration: 3 Days (01.12.2025 to 03.12.2025)

Daily Timing: 10:00 AM – 3:30 PM

Mode: Offline Hands-on Training

Venue: Computer Laboratory and Auditorium, Shri Ram College

Software Installed:

- JDK 21
- Eclipse IDE
- NetBeans
- Apache Tomcat
- MySQL Server
- XAMPP
- Visual Studio Code
- Git

Hardware:

- Desktop Computers
- High-speed Internet
- Projector
- Whiteboard

RESOURCE PERSONS

- Dr. Nishant Kumar Rath, Dean, Faculty of Computer Applications
- Dr. Pramod Kumar, Associate Professor
- Mr. Sanjaykant Tyagi, Assistant Professor
- Dr. Himanshu Hora, Associate Professor

TARGET PARTICIPANTS

Course: Bachelor of Computer Applications

Semester: V

DAY-WISE WORKSHOP SCHEDULE

DAY 1

Session 1: Introduction to Software Projects

Topics Covered

- SDLC
- Project Selection
- Requirement Analysis
- Feasibility Study

Session 2: Java Refresher

Topics

- Classes
- Objects
- Methods
- Arrays
- Strings
- Collections

Practical: Creating a Student Management System.

DAY 2

Session 1: Java Advanced Concepts

Topics

- Inheritance
- Polymorphism
- Abstraction
- Interfaces
- Exception Handling
- File Handling

Practical: Employee Management Application

Session 2: Web Technologies

Topics

- HTML5
- CSS3
- Bootstrap
- JavaScript
- Responsive Design

Practical: Creating responsive webpages.

DAY 3

Session 1: Java Web Development

Topics

- JSP
- Servlets
- JDBC
- MySQL
- CRUD Operations

Practical: Student Information Portal

Modules

- Login
- Registration
- Dashboard
- Reports

Session 2: Project Development

Students worked in teams.

Projects Included

- Library Management
- Hospital Management
- Online Examination System
- College ERP
- Inventory Management
- Hotel Booking
- Attendance Management
- Online Voting
- Banking Application
- Placement Portal

HANDS-ON ACTIVITIES

Students performed

- Database creation
- Table design
- Java coding
- JSP page development
- CSS styling
- JavaScript validation

- CRUD operations
- Session management
- Exception handling
- Report generation
- Application testing
- Bug fixing

TECHNOLOGIES COVERED

Programming

- Java

Frontend

- HTML5
- CSS3
- Bootstrap
- JavaScript

Backend

- JSP
- Servlets

Database

- MySQL

IDE

- Eclipse
- NetBeans
- VS Code

Server

- Apache Tomcat

MINI PROJECTS DEVELOPED

Examples

- Library Management System
- Student Attendance System
- Online Quiz Portal
- Online Shopping Cart
- Hospital Management System
- College ERP
- Employee Payroll

- Hostel Management
- Banking System
- Hotel Reservation System

SKILLS DEVELOPED

Technical Skills

- Java Programming
- Database Design
- Frontend Development
- Backend Development
- JDBC
- SQL
- Debugging

Professional Skills

- Communication
- Teamwork
- Documentation
- Presentation
- Time Management

STUDENT EVALUATION

Evaluation Components

- Attendance – 10 Marks
- Practical Assignments – 30 Marks
- Mini Project – 40 Marks
- Presentation – 20 Marks
- Total – 100 Marks**

FEEDBACK ANALYSIS

- Total Participants: 181
- Feedback Received: 172
- Overall Satisfaction: 95%

Ratings

Parameter	Excellent	Good	Average
Content	90%	8%	2%
Resource Person	94%	6%	0%
Practical Sessions	96%	4%	0%
Lab Facilities	88%	10%	2%
Overall	95%	5%	0%

IMPACT OF THE WORKSHOP

The workshop significantly enhanced the practical programming skills of the participants. Students developed confidence in designing and implementing full-stack Java-based applications. Their understanding of software architecture, database integration, user authentication, and debugging improved considerably.

Faculty members observed increased student engagement during laboratory sessions, better project planning, and improved teamwork. Several student groups successfully completed deployable prototypes that can be further extended as final-year projects. The workshop also strengthened students' readiness for technical interviews, internships, and campus recruitment by providing exposure to industry-relevant tools and development practices.

CHALLENGES FACED

- Different programming proficiency levels among students.
- Limited time for advanced topics.
- Initial software installation and configuration issues.
- Database connectivity errors during practice.
- Network interruptions in some sessions.

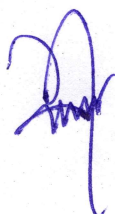
RECOMMENDATIONS

- Conduct similar workshops every semester.
- Increase the duration to 7–10 days.
- Introduce GitHub-based collaborative development.
- Include REST APIs and Spring Boot in future editions.
- Add cloud deployment using platforms such as Render or Railway.
- Organize coding competitions after the workshop.
- Invite industry mentors for project reviews.

CONCLUSION

The Workshop on Project Development using JAVA and Other Web Technologies successfully achieved its objectives by bridging the gap between academic learning and practical software development. Through a blend of lectures, demonstrations, coding exercises, and team-based projects, students gained valuable experience in designing, developing, testing, and presenting web applications.

The workshop fostered problem-solving, collaboration, and professional communication skills while strengthening students' technical competencies in Java, web technologies, and database management. The positive feedback from participants and faculty indicates that such experiential learning initiatives play a crucial role in preparing BCA students for higher education, internships, entrepreneurship, and careers in the software industry.

 (HOD, Computer Application)

Feedback Form

Workshop on Project Development using JAVA and Other Web Technologies

Organized by: Department of Computer Applications
Shri Ram College, Muzaffarnagar

Participant Information

Name : _____

Roll No. : _____

Mobile : _____

Email : _____

Please rate the following

(5 = Excellent 4 = Very Good 3 = Good 2 = Fair 1 = Poor)

S.No	Parameter	5	4	3	2	1
1	Workshop Objectives					
2	Content Quality					
3	Resource Person					
4	Communication Skills					
5	Practical Sessions					
6	Hands-on Activities					
7	Learning Material					
8	Laboratory Facilities					
9	Time Management					
10	Overall Satisfaction					

Which session was most useful? _____

Which technology did you learn the most?

☐ Java

☐ HTML

☐ CSS

☐ JavaScript

☐ JSP

☐ Servlet

☐ JDBC

☐ MySQL

☐ Bootstrap

Suggestions for Improvement _____

Would you recommend this workshop to your juniors?

☐ Yes

☐ No

Overall Rating (5 = Excellent 4 = Very Good 3 = Good 2 = Fair 1 = Poor) _____

Participant Signature

Participant Feedback Summary

Total Participants: 181

Feedback Received: 172

Response Rate: 95.67%

Overall Satisfaction

Rating	Excellent	Very Good	Good	Fair	Poor
Percentage	72%	21%	7%	0%	0%

Parameter-wise Analysis

Parameter	Excellent	Very Good	Good
Workshop Content	70%	25%	5%
Resource Person	82%	15%	3%
Practical Sessions	85%	12%	3%
Laboratory Facilities	68%	25%	7%
Overall Organization	78%	18%	4%
Project Guidance	86%	11%	3%
Hands-on Activities	88%	10%	2%
Learning Material	75%	20%	5%

Technology-wise Learning Preference

Technology	Java	HTML/CSS	JavaScript	JDBC	MySQL	JSP	Servlet	Bootstrap
Students	54	46	42	48	45	39	37	31

Key Outcomes

- 95% of participants reported increased confidence in developing Java-based web applications.
- 90% successfully completed a functional mini-project during the workshop.
- 92% expressed interest in attending advanced workshops on Spring Boot, REST APIs, and full-stack development.
- Students demonstrated improved teamwork, coding practices, debugging skills, and project documentation abilities.


(HOD, Computer Application)

