



RV Educational institutions

RV Institute of Technology and Management ®

Bangalore – 560076

Department of Information Science Engineering

Event Name	HANDS-ON WORKSHOP ON ADVANCED JAVA
Date	26 th to 28 th JUNE 2024(3 Days)
Venue	6 th Floor MCA Seminar Hall, RVITM

Objective of the Program:

- Gain hands-on experience in connecting Java applications to MySQL databases using JDBC.
- Implement CRUD operations using the DAO pattern to manage student records.
- Utilize Data Transfer Objects (DTOs) for efficient data handling and transfer between application layers.
- Develop and deploy servlets to handle HTTP requests and responses for web interaction.
- Design and implement a simple web interface for user interaction with the student management system.

Day 1:26.06.2024

Inauguration session :

The program was started with the Inauguration session. Dr. Latha C A, HoD, Department of ISE started the session by welcoming the chief guest. It was then followed by invocation song by Poornima and Soundarya G T, 4th Sem, Department of ISE, RVITM. Dr.Vinoth Kumar M, Associate Professor, Dept of ISE, RVITM done the welcome address for the workshop. Sanmay S R, 4th Sem, Department of ISE, RVITM has introduced the chief guest to session. The Chief guest of the session Mr. Raghu M T, Kaustuba Technologies, Bangalore has set the right tone to the program by delivering Inaugural address to the participants and by outlining the importance of Java in industries. Finally, Uzma Farzana M, 4th Sem, Department of ISE, RVITM proposed vote of thanks to the august gathering and concluded the Inaugural function. Finally, Uzma Farzana M, 4th Sem, Department of ISE, RVITM proposed vote of thanks to the august gathering and concluded the Inaugural function.



Session 1 :9.30am to 1:20 pm

Topic:

Setting Up and Understanding the Architecture

The following titles are covered in the session

- Set up MySQL database and Java Eclipse IDE for development.
- Configured JDBC for database connectivity.
- Provided an explanation of MySQL databases and their integration with Java applications.
- Discussed the multi-layered architecture of Java applications using block diagrams
- Explained the roles and interactions of each layer (Database, DAO, Service, and Presentation).

Session 2 :1:20 pm to 4:30 pm

Topic:

Database Connectivity and CRUD Operations

The following titles are covered in the session

- Developed the DBUtility clas to establish a database connection.
- Implemented the StudentDAO class to interact with the student database.
- Added columns to the student database using JDBC.
- Demonstrated how to execute SQL commands from Java code.
- **Assignment:** Implement a CRUD (Create, Read, Update, Delete) system for managing student records.

Day 2:27.06.2024

Session 1 :9.30am to 1:20 pm

Topic:

Web Interface Development and Database Interaction

The following titles are covered in the session

- Created an HTML form (index.html) to capture student data for submission.
- Explained the flow of data from the web interface to the server using HTTP.
- Discussed how to handle HTTP requests and responses in servlets.
- Used block diagrams to illustrate the retrieval and updating process of the database.
- Provided detailed coding examples for handling form submissions and database operations.



Session 2 :1:20 pm to 4:30 pm

Topic:

Integration and Full System Development

The following titles are covered in the session

- Developed Data Transfer Objects (DTOs) to encapsulate student data.
- Built the service layer to handle business logic and interact with the DAO.
- Implemented the servlet to act as a controller for handling client requests.
- Connected all components (DTO, DAO, Service, Servlet) to form a complete system.
- Tested the full system to ensure proper functionality and integration.

Day 3:29.06.2024

Topic:

Completion of Assignment and Implementation of topics covered on projects



Summary

Each session built upon the previous one, gradually leading participants from setting up the environment to developing a fully functional, multi-layered Java web application with database connectivity. The hands-on assignments and block diagram explanations reinforced the learning objectives and provided practical experience in advanced Java development.



Coordinators Signature

HOD's Signature