

Summary

This course covered the fundamentals of JDBC programming:

1. **Introduction:** Understanding the need for JDBC and database connectivity
2. **Setup:** Installing PostgreSQL and configuring the development environment
3. **Connection:** The 7-step process to connect Java with databases
4. **Basic Queries:** Executing SELECT statements and processing results
5. **CRUD Operations:** Complete Create, Read, Update, Delete operations
6. **Security:** Understanding SQL injection vulnerabilities
7. **Best Practices:** Using PreparedStatement for safe and efficient database operations

Key Takeaways:

- Always use PreparedStatement for user input
- Properly close database resources
- Handle exceptions appropriately
- Use try-with-resources for automatic resource management
- Follow the 7-step JDBC process consistently

Next Steps:

- Learn about Connection Pooling
- Explore Transaction Management
- Study Database Metadata
- Practice with different database systems
- Learn about ORM frameworks (Hibernate, JPA)