

## **Module 1c: Relational Algebra**

### **Objective:**

To understand the importance of relational algebra and to familiarize with its operations for efficient SQL query design.

### **Topics:**

- union, intersect, difference
- select, project, product, join, njoin
- division
- how to test these operations using WinRDBI

### **Task:**

Download WinRDBI from the class website and test the sample queries included in the zip file. Understand the functionality of each relational algebra operation and be familiar in using it in WinRDBI. Also, realize that all query executions are carried out as relational algebra operations and a thorough understanding of relational algebra is essential for query optimization.

### **Assessment:**

Relational algebra knowledge will be tested in quizzes and projects.