Set Operations

Set Operations illustrates the application of the fundamental Java set operations union, intersection, and complement to a practical situation involving the days of the week. This project is set to demonstrate how these operations can be applied to manipulate data sets and produce multiple different outcomes. Diving into the SetOperations class, which implements the fundamental set operations, while the SetOperationsTester class tests and shows the outcomes of these operations.

Weekdays and weekend days are two sets that can be combined using the union function to create a single list that includes all seven days of the week. The outcome is a comprehensive list of days, spanning Monday through Sunday, as this process guarantees that no duplicates are included. Since there are no days that overlap between weekdays and weekend days, the intersection operation which finds common elements between two sets produces an empty list in this instance. The weekend days Saturday and Sunday are essentially what remain after the complement operation computes the difference between the complete set of days and the list of weekdays.