This assignment is **due on May 28**. All submitted work must be *done individually* without consulting someone else's solutions in accordance with the University's "Academic Dishonesty and Plagiarism" policies.

**Problem 1.** Imagine we are given $n$ axis aligned boxes on the plane such that the lower edge of every box coincided with the $x$ axis. You are to implement a divide and conquer algorithm for computing the union of $n$ such boxes.

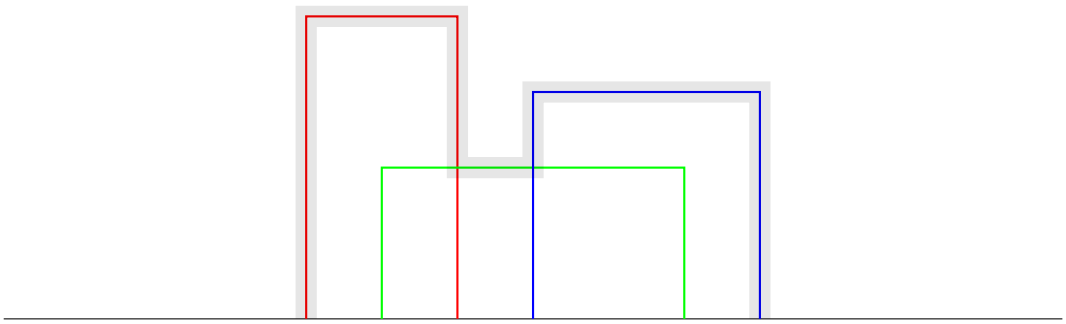

Figure 1: Example of an instance consisting of three boxes outlined in red, green, and blue; and the union outlined in grey.

Download the zip file from canvas with the scaffold for the assignment. There you'll find a README file with the precise description of the programming tasks.

After you finish implementing and testing your algorithm on your computer. Upload your solution to gradescope. You can upload your submission files manually or directly from github or bitbucket.