You have to write a Java program. Create a class called DateMerger. This class should have a method called mergeDates. This method takes a list of class DateRange which has member variables startDate and endDate.

The method signature looks like:

public List<DateRange>mergeDates(List<DateRange>dateRanges)

This function should scan the list of passed date ranges and merge those date ranges.

For example, if given the below date ranges

01 Jan 2014 - 30 Jan 2014

15 Jan 2014 - 15 Feb 2014

10 Mar 2014 - 15 Apr 2014

10 Apr 2014 - 15 May 2014

The output should be:

01 Jan 2014 - 15 Feb 2014

10 Mar 2014 - 15 May 2014

Note: If start date of a date range is greater than end date of another date range, then do not merge those date ranges. For example, the below date ranges should not be merged:

01 Jan 2014 – 15 Jan 2014

16 Jan 2014 – 30 Jan 2014

(There is a gap of one day between first and second date ranges).

Below date ranges should be merged:

01 Jan 2014 – 15 Jan 2014

15 Jan 2014 – 30 Jan 2014

(End date of first date range matches with start date of second date range).