Problem

You are responsible for scheduling a series of training courses for your employees. Each employee will provide you a list of available dates that they can attend. Write a class to return a list of the minimum number of dates needed so that all employees attend once.

Input Constraints

* Assume that the number of employees will be small (less than 100)
* Assume they will only provide a days for a given month (Max of 31 dates) December 1st, December 2nd will be specified as [1,2]

**Example 1:**

Employee 1: Days 1,2,5

Employee 2: Days 2,3,7

Employee 3: Days 5,7,9

A solution: Days 2, 5

**Example 2:**

Employee 1: 3, 12, 15

Employee 2: 1,2,9

Employee 3: 4,6

A Solution: 1,3,4

**Included class layout (attached):**

public class ClassScheduler {

    public Set<Integer> findValidTrainingDays(List<Set<Integer>> employeeAvailability) {

        return null;

    }

}

Please implement the above class and provide back your solution.  Please, include all code, test data, and instructions for compiling and running your solution.

If you are unable to complete a working solution, please include all code written and any documentation explaining the algorithm to be used to solve the problem.