

**Training for Junior Microsoft CRM Developers with Employment**

**TEST TASK**

# You need to implement C# method according to the following description:

To the method input you receive a:

1. start date,
2. duration in days (whole number) and
3. weekends (array of objects with the fields "start date" and "end date")

If "start date" is the same with the "end date", it means the weekend happens only on that day. If "start date" isn't same with the "end date", it means that the whole period is a weekend.

Example.

23/04/2017 - 25/04/2017, two weekends (Saturday and Sunday) and 25th is a holiday, 3 weekends in total.

The array is sorted by the start date, periods do not intersect.

At the end the function should return the date, which is counted as a start date + duration, without weekends. Start date is the first day of the period.

Investigate and take into account all possible intersections of startdate, duration and weekend

Example 1.

Start date: 21/04/2017 Duration: 5 days

Weekends: 23/04/2017 - 25/04/2017

At the exit there should be: End date 28/04/2017

Explanation

1st day = 21.04.2017

2nd day = 22.04.2017

23.04.2017 excluded as weekend 24.04.2017 excluded as weekend 25.04.2017 excluded as weekend 3rd day = 26.04.2017

4th day = 27.04.2017

5th day = 28.04.2017

Example 2.

Start date: 21/04/2017 Duration: 5 days

Weekends 1: 23/04/2017 - 25/04/2017

Weekends 2: 29/04/2017 - 29/04/2017

At the exit there should be: End date 28/04/2017

Explanation

1st day = 21.04.2017

2nd day = 22.04.2017

23.04.2017 excluded as weekend 24.04.2017 excluded as weekend 25.04.2017 excluded as weekend 3rd day = 26.04.2017

4th day = 27.04.2017

5th day = 28.04.2017

Second weekend is not taken to account because duration ended before weekend

Implement method Calculate in class WorkDayCalculator in project **CSharpTest** delivered with test

Execute test methods to ensure you done logic correctly

Add other tests you think are meningfull to verify all possible scenarious for function call

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