Backend Challenge

For this challenge, please consider that Service Level Agreement (SLA) is the agreed resolution time between customer and service provider.

Problem

Customer wants to make sure we the SLAs for the open defects in production are met. In order to do so, service provider decided to develop a simple program to calculate the maximum date to close the problem based on the SLA.

You are given a Java method signature:

```
public LocalDateTime calculateSLA(LocalDateTime iOpeningDateTime, Integer iSLA)
```

You need to write a program that returns a date time based on input opening date and SLA.
For example, considering:

- Calendar below:

AUGUST 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

- Problem opening date as August 1st at 2AM;
- 8 hours SLA

Your program should return the maximum date and time problem should be closed, that for the example is *August 1st, 4PM*.

Input format example

- Opening date: 2019-08-01T02:00:00.000
- SLA: 8

Constraints

- Only business hours should be considered
- Business hours are from 8AM to 5PM excluding weekends and holidays (9 hours a day)

- Only problems opened from August 1st until August 31st 2019 will be analyzed
- Given method signature cannot be modified

Output Format

- Maximum close date: 2019-08-01T16:00:00.000

Java project download location

https://github.com/osilvarafael/backend-challenge