# Mobile tariff calculator

Develop a tool that allows you to choose most optimal cell phone tariff plan based on user's preferences. Tool should take user's cell phone usage per month in minutes and desired contract duration as input parameters and return available tariff plans sorted by their relevance (from most suitable to less suitable) and output tariff name, estimated monthly charge and estimated amount user should pay by the end of contract. Architecture of application should allow adding new tariff plans without big changes to the code and existing tariffs

## Available tariff plans:

TARIFF A. This tariff has a per minute rate of 0.15 € and a flat monthly fee 10 €

TARIFF B. This tariff has a flat rate of 25 € per month and includes 130 minutes of free of charge talking time. After full usage of available free minutes user is charged a per minute rate of 0.20 €

TARIFF C. This tariff has a flat rate of 35 € per month and includes 190 minutes of free of charge talking time. After full usage of available free minutes user is charged a per minute rate of 0.20 €

Also, some tariff plans depending on contract duration allow user to receive additional bonus by the end of the contract period.

TAIFF A: has no additional bonuses.

TAIFF B:

- for contract duration of 6 months user gets no bonus;
- for contract duration of 12 months user gets a 20 € bonus;
- for contract duration of 24 months user gets a 35 € bonus;

TAIFF C:

- for contract duration of 6 months user gets no bonus;
- for contract duration of 12 months user gets 25 € bonus;
- for contract duration of 24 months user gets 40 € bonus;

## Examples of calculations:

1. User is expecting 80 minutes of talking by phone per month and wishes to sign a 6 months contract. Offered tariffs would have the following prices for him:
   a. Tariff A: (80 * 0.15 + 10) * 6 = 132 €
   b. Tariff B: 25 * 6 = 150 €
   c. Tariff C: 35 * 6 = 210 €

   Conclusion: Tariff A fits the most for the user

2. User is expecting 150 minutes of talking by phone per month and wishes to sign a 12 months contract. Offered tariffs would have the following prices for him:
   a. Tariff A: (150 * 0.15 € + 10 €) * 12 = 390 €
   b. Tariff B: ((150 - 130) * 0.20 € + 25 €) * 12 – 20 € = 328 €
   c. Tariff C: 35 € * 12 – 25 € = 395 €

   Conclusion: Tariff B fits the most for the user

3. etc

We are expecting this test project be built using c# language in MS Visual Studio 2015-2017. Usage of 3$^{rd}$ party libraries is not advisable unless justified (e.g. preference to use NUnit instead of MS Test for unit tests is OK). Solution should not contain any GUI related things. A simple Console interface is more than enough to accomplish this. No database or external data file is necessary for this task. It is OK to have all required data in the code accessed by any approach you think is appropriate. Treat this task as a real assignment and so implement it as you would do that for your real customer and assume your team leader is going to challenge your code in a code review session ☺