

- I. (2 points) NBP Web API documentation is available at <http://api.nbp.pl/en.html>. This API allows us to retrieve currency rates and gold prices in XML and JSON format.

Using the Postman application, make requests to the API:

- gold price on February 10, 1994 in JSON format,
- gold price on September 1, 2014 in XML format,
- today's average Euro price in XML format
- The series of the last two US dollar rates

For each request, take a screenshot of the Postman application window showing all changed query settings and the query result.

Send screenshots as separate PNG files. Name the files sXXXXXX-TPO9-Y.png, where sXXXXXX is your index number and Y is the number of the request.

- II. (5 points) Create an API that will calculate BMI (<http://pj.edu.pl/BMI>) and BMR (<http://pj.edu.pl/BMR>). Calculate BMR using the revised Harris–Benedict equation. Sample requests and responses:

BMI

Request:
Accept: application/json
GET /api/v1/BMI?weight=80&height=180

Response:
{
 "weight": 80.0,
 "height": 180.0,
 "bmi": 24,
 "type": "Normal"
}

Request:
Accept: text/plain
GET /api/v1/BMI?weight=80&height=180

Response:
24.69

If someone provides a value ≤ 0 as weight or height, the response code should be:

400 Bad Request with the reason header:

"invalid data, weight and height parameters must be positive numbers".

BMR

Request:
Accept: application/json
GET /api/v1/BMR/man?weight=80&height=180&age=25

Response:
{
 "gender": "man",
 "weight": 80.0,
 "height": 180.0,
 "age": 25,
 "bmr": 1805
}

Request:
Accept: text/plain
GET /api/v1/BMR/man?weight=80&height=180&age=25

Response:
1805kcal

If someone provides a value ≤ 0 as weight, height or age, the response code should be:

499 Invalid Data with the reason header:

"invalid data, weight, height and age parameters must be positive numbers".

In BMR, instead of *man*, we can also enter *woman* - then BMR is calculated differently. If we give other value than man or woman as gender, we shortreturn **400 Bad Request** code with the reason "invalid gender data".

BMI and BMR should be returned as integers, but weight and height can be returned as floating point numbers.

You must also ensure that information can be returned in the *XML* format. The information contained in the response in the case of *XML* is similar to that in *JSON*.

Use the knowledge acquired during the lecture and good programming practices.

Send the solution as a ZIP archive called sXXXXXX-TPO9.zip, where sXXXXXX is your index number.