**Salamon Donát OOP coding assignment** [donat.salamon@centria.fi](mailto:donat.salamon@centria.fi)

Assignment description:

My assignment was to process a json file with a certain format in order to be able to use it to solve the exercises.

First I created the class model which contained the properties from the json file and I also added 2 extra ”helper” properties in order make the proccess more transparent because now we can easily determinate which who does he/she belong to.

A képen szöveg, képernyőkép, Betűtípus, szoftver látható

Automatikusan generált leírás

I will these properties up when I leave the ”current” person based on if he/she has a child, but I also had to make another if statement because the previous one does not cover the last person(youngest) who also does not have a child but still need to fill in the ancestors. (I made thoose 2 parameters optional)

A képen szöveg, képernyőkép, szoftver látható

Automatikusan generált leírás

I made the nameExtend function so every time when I have to write out a Person I do not have to typet he whole line and it is just way better with the coding ethicet. I meanly used camel casing except with the class properties (For exmaple: prevLastname,prevFirstname)

At the end I choose the Newtonsoft.Json library because that is what I found the best solution for the current assignment.

First I read all the information what the file contains into a string. Then I created a list based on the Person class. Then I called the recursion function to process it.

A képen szöveg, képernyőkép, Betűtípus látható

Automatikusan generált leírás

I used a while loop in order to make the program comfortable and easy to use. I also wrote if-else staetement related to the arguments that the user types if something would be misstyped or missed it shows it.

I mainly used LINQ expressions in order to find the data that I needed. The most complex out of all is the one wwhere I had to determinate the familyhead where in his/her family someone else also used his firstname.

I first wanted to find familyheads based on the extra 2 properties the ancestorFirstname and ancestorLastname then when I found one I would use that Person’s firstname and compare it with the the whole list’s firstname property and I also had to check there that THEIR ancestor field is NOT empty (because they would be familyheads that I already found).

I made a lof of comments in the project also. I attached a commands(examples) to showcase some options.