Estonian ID code (isikukood) explainer and creator.

<u>Read:</u> <a href="https://et.wikipedia.org/wiki/Isikukood">https://et.wikipedia.org/wiki/Isikukood</a>, <a href="https://www.cs.tlu.ee/~inga/progbaas/Praktiline/isikukood.txt">https://www.cs.tlu.ee/~inga/progbaas/Praktiline/isikukood.txt</a> (more on the checknumbre algorithm)

**NB!** Before solving this task think through what fields and data you need and draw the 'sceleton' on paper first, dont start coding immediately. With good class design the exercise is much easier.

**Use switch-case for determining the hospital.** See the example from below. https://www.tutorialspoint.com/csharp/switch statement in csharp.htm

- a. Create a class representing id code and neccessary fields.
- b. Create a method that prints all info about existing Id code (sex, birthplace, date of birth, control number).
  - **Näide 1**: Isik isikukoodiga 34501234215 on sündinud 23. jaanuaril 1945. a (...450123...). Ta on mees (3...), kelle isikukood registreeriti Pärnu haiglas (...42...) ja sel päeval oli ta esimene poisslaps (...1...). Isikukoodi kontrollnumbriks on 5 (...5)
- c. Create a method that based on the birthplace and time and sex creates Id code. **Näide 2**: Kui tütarlaps sündis 13. märtsil 1994 Põlvamaal, on tema isikukood suure tõenäosusega 49403136515, või kui ta oli sel päeval piirkonnas teine sündinud tüdruk, siis 49403136526.
- d. Add an option to read id code(s) from a text file. Id codes have to be on separate lines, for example:

48803214480 43801215664 33401214594 51107169959 61512311560

e. Add option to save info about id code to text file. For example if someone wants info about id code 48803210285, then to txt file is saved:

Id code: 48803210285. Sex: female BirthDate: 21.03.1988 Birthplace: Tallinn

## Info and tips:

- -the amount of text files should be 2 (and not more): one from reading and another one from writing. Writing should be appending, not overwriting. The names and paths can be hardcoded, we don't have to ask them from user.
- -store as much info as possible on class fields. The same fields (sex, birthtime, birthplace etc) and logic are needed for both: creating and explaining the id code. Do not duplicate logic and fields!