Exercise

We want to model two types of customer in a commercial application: singular persons and companies:

- Singular persons and companies have the following aspect in common: name and email
- The email should be accessible for writing and reading
- The name should only be readable
- The singular person has a tax number (called NIF)
- The company has a tax number (called NIPC)
- The NIF and NIPC should not be accessible for writing or reading after the creation of the object.
- The NIF and NIPC should be accessible through the method GetIdentificationNumber for both entities (singular persons and companies).
- In the future, it should not be possible to extend classes that represent both customers.

Use an object-oriented programming language of your choice to solve the problem above.

To go further if you feel:

We enter for each Singular person their buying details as a list of purchases (Identification of the good bought, unitary price without tax, quantity, tax rate for this good, to which companies it was bought).

We also enter for each company their selling (Identification of the good sold, unitary price without tax, quantity, tax rate for this good, to whom Singular person it was sold).

We wish to perform a check of consistency of the data. Could you propose a way to do it. It does not need to be extensive, but needs to show the logical part of solving this problem.