

Assignment

The following classes define a person with a name and address:

```
class Person
{
    public Name FullName { get; set; }
    public Address Address { get; set; }
}

class Name
{
    public string FirstName { get; set; }
    public string LastName { get; set; }
}

class Address
{
    public string Street { get; set; }
    public string City { get; set; }
}
```

We define a **direct relation** between two people as follows: Person A is directly related to person B if either their full name **and/or** address are exactly equal (case-sensitive).

We define an ***n*-level relation** between person A and person B if you can reach from person A to person B in exactly *n* direct relations.

For example, a 1st level and 2nd level relations look like:



Your mission:

Implement a utility that finds the minimal level of relation between two persons.

The utility should have the following functions:

`void Init(Person[] persons)` - Initialization of the utility with the persons instances.

`int FindMinRelationLevel(Person personA, Person personB)` - Returns the minimal level of relation between personA and personB. If they are not related, return -1.

General guidelines:

- A working program is better than a well-designed non-working program.
- If anything in the question is unclear, make assumptions, write them down as comments in the code and continue.
- Please deliver your solution in no more than 2 hours.