

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; }
}

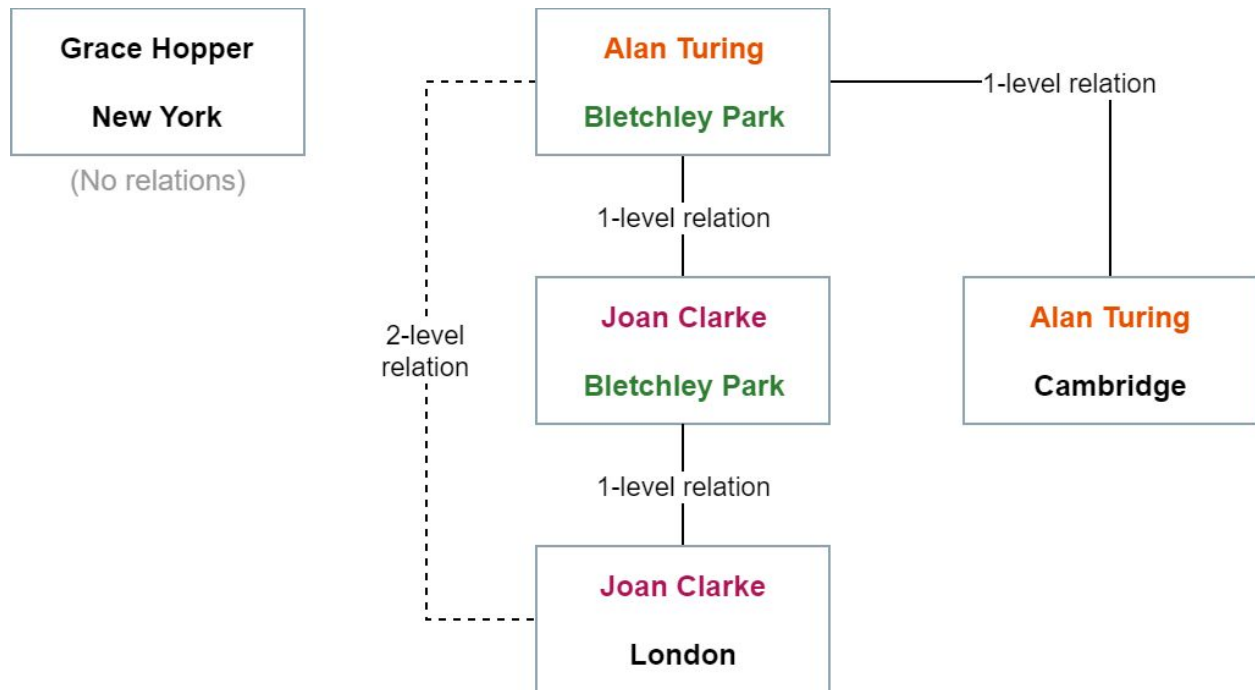
class Address
{
    public string Street { get; set; }
    public string City { get; set; }
}
```

** The above example is written in C#. If you are you using a different language feel free to implement equivalent models*

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 relation hops. 1-level relation is a direct relation.

Example:



** Not all relations are displayed in the diagram*

Your assignment:

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

The utility should have the following functions:

`void Init(Person[] people)` - Initialization of the utility with person 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 solution is better than a well-designed non-working solution.
- If anything in the assignment is unclear, make assumptions, write them down as comments in your code and continue.
- At the end of the 2 hours (or earlier), please submit your solution.