**2. Network**

In a home Network, there are multiple Devices with multiple attributes and capabilities.

There are 3 types of Devices: Lightweight, Normal and Smart. The Network knows about all Devices.

Every Device has an age and a battery life which is set when they are registered at the system.

Smart and Normal Devices have an actual screen size as well, while Lightweight Devices know the number of all other Lightweight Devices on the Network. Smart has an additional name attribute which has to be unique (just don’t write the same for 2), also they can show the number of Normal Devices whose remaining power differs from theirs within a range by a given amount.

Normal Devices have an additional attribute as well, we know the year when they were manufactured.

Also, all of them are able to calculate their own remaining power.

This differs based on the Device:

* Lightweight - loses 7 for every age, pluss have 20 more “power” for each Connected Device on the Network beside of them
* Smart - loses 15 for every age, also loses a fix amount based on their screen size (EDTV - 5, HD - 10, FULL HD - 15, UHD - 20)
* Normal - loses 3 for every age, if it was manufactured in 2000 or later its power is doubled if earlier it is halved

Implement these classes and their methods using the OOP principles!